

หลักสูตรสถานศึกษา

ห้องเรียนพิเศษ

โครงการจัดการเรียนการสอนตามหลักสูตรกระทรวงศึกษาธิการ
เป็นภาษาอังกฤษ Mini English Program (MEP)



ตามหลักสูตรแกนกลางการศึกษาขั้นพื้นฐาน พ.ศ.๒๕๕๑

โรงเรียนบ้านอนุบาลแม่สาย(สายศิลปศาสตร์)

สำนักงานเขตพื้นที่การศึกษาประถมศึกษาเชียงราย เขต ๓

สำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน กระทรวงศึกษาธิการ

โครงสร้างเวลาเรียนหลักสูตรสถานศึกษาขั้นพื้นฐานโรงเรียนอนุบาลแม่สาย (สายศิลปศาสตร์)						
ตามหลักสูตรแกนกลางการศึกษาขั้นพื้นฐาน พุทธศักราช ๒๕๕๑ (ปรับปรุง พ.ศ. ๒๕๖๐)						
ปีการศึกษา ๒๕๖๘ ห้องเรียนพิเศษหลักสูตรภาษาอังกฤษ MEP						
กลุ่มสาระการเรียนรู้/ กิจกรรม	เวลาเรียน/ จำนวนชั่วโมง/ ปี					
	ระดับประถมศึกษา					
	ป. ๑	ป. ๒	ป. ๓	ป. ๔	ป. ๕	ป. ๖
สาระพื้นฐาน						
ภาษาไทย	ท11101	ท12101	ท13101	ท14101	ท15101	ท16101
	200	200	200	160	160	160
Mathematics	ค11102	ค12102	ค13102	ค14102	ค15102	ค16102
	200	200	200	160	160	160
Science and Technology	ว11102	ว12102	ว13102	ว14102	ว15102	ว16102
	80	80	80	80	80	80
สังคมศึกษา ศาสนา และวัฒนธรรม	ส11101	ส12101	ส13101	ส14101	ส15101	ส16101
	40	40	40	80	80	80
ประวัติศาสตร์	ส11102	ส12102	ส13102	ส14102	ส15102	ส16102
	40	40	40	40	40	40
Health and Physical Education	พ11102	พ12102	พ13102	พ14102	พ15102	พ16102
	40	40	40	80	80	80
Art/Drama and music	ศ11102	ศ12102	ศ13102	ศ14102	ศ15102	ศ16102
	40	40	40	40	40	40
Occupation	ง11102	ง12102	ง13102	ง14102	ง15102	ง16102
	40	40	40	40	40	40
Fundamental English	อ11102	อ12102	อ13102	อ14102	อ15102	อ16102
	160	160	160	160	160	160
รวมเวลาเรียน (พื้นฐาน)	840	840	840	840	840	840
สาระเพิ่มเติม						
คณิตศาสตร์เพิ่มเติม	ค11203	ค12203	ค13203	ค14203	ค15203	ค16203
	80	80	80	80	80	80
วิทยาศาสตร์เพิ่มเติม	ว11203	-	-	ว14203	-	-
	40			40		
การศึกษาค้นคว้าอิสระ (IS)	IS11201	-	-	IS14201	-	-
	40			40		
โครงงานวิทยาศาสตร์ (IS)	-	IS12202	IS13202	-	IS15202	IS16202
		80	80		80	80
Communicative English	อ11201	อ12201	อ13201	อ14201	อ15201	อ16201
	80	80	80	80	80	80

รวมเวลาเรียน (เพิ่มเติม)	240	240	240	240	240	240
กิจกรรมพัฒนาผู้เรียน						
กิจกรรมแนะแนว (บูรณาการเทคโนโลยี)	40	40	40	40	40	40
กิจกรรมนักเรียน ลูกเสือ/ ยุวกาชาด	30	30	30	30	30	30
กิจกรรมแนะแนว	40	40	40	40	40	40
กิจกรรมเพื่อสังคมและสาธารณประโยชน์	10	10	10	10	10	10
รวมเวลาเรียนกิจกรรมพัฒนาผู้เรียน	120	120	120	120	120	120
รวมเวลาเรียนทั้งหมด	1,200	1,200	1,200	1,200	1,200	1,200

หมายเหตุ 1. การเรียนการสอนหน้าที่พลเมืองบูรณาการกับการเรียนรู้ในกลุ่มสาระการเรียนรู้สังคมศึกษา

2. กิจกรรมแนะแนว จัดการเรียนรู้โดยบูรณาการกับโครงงานเทคโนโลยี ชั้น ป.1-6

Learning Area of Foreign Languages

Why it is necessary to learn foreign languages

In the present global society, learning foreign languages is very important and essential to daily life, as foreign languages serve as an important tool for communication, education, seeking knowledge, livelihood and creating understanding of cultures and visions of the world community. Foreign languages enable learners to be aware of diversity of cultures and viewpoints in the world community, conducive to friendship and cooperation with various countries. They contribute to learners' development by giving learners better understanding of themselves and others. The learners are thus able to learn and understand differences of languages and cultures, customs and traditions, thinking, society, economy, politics and administration. They will be able to use foreign languages for communication as well as for easier and wider access to bodies of knowledge, and will have vision in leading their lives.

The foreign language constituting basic learning content that is prescribed for the entire basic education core curriculum is English, while for other foreign languages, e.g., French, German, Chinese, Japanese, Arabic, Pali and languages of neighbouring countries, it is left to the discretion of educational institutions to prepare courses and provide learning management as appropriate.

What is learned in foreign languages

The learning area for foreign languages is aimed at enabling learners to acquire a favourable attitude towards foreign languages, the ability to use foreign languages for communicating in various situations, seeking knowledge, engaging in a livelihood and pursuing further education at higher levels. Learners will thus have knowledge and understanding of stories and cultural diversity of the world community, and will be able to creatively convey Thai concepts and culture to the global society. The main contents include:

- **Language for Communication:** use of foreign languages for listening, speaking, reading and writing, exchanging data and information, expressing feelings and opinions, interpreting, presenting data, concepts and views on various matters, and creating interpersonal relationships appropriately
- **Language and Culture:** use of foreign languages harmonious with culture of native speakers; relationships, similarities and differences between languages and cultures of native

speakers; languages and cultures of native speakers and Thai culture; and appropriate application

- **Language and Relationship with Other Learning Areas:** use of foreign languages to link knowledge with other learning areas, forming the basis for further development, seeking knowledge and broadening learners' world views

- **Language and relationship with Community and the World:** use of foreign languages in various situations, both in the classroom and the outside community and the global society, forming a basic tool for further education, livelihood and exchange of learning with the global society

Learners' Quality

Grade 3 graduates

- Act in compliance with the orders and requests heard; pronounce the alphabet, words, groups of words, simple sentences and simple chants by observing the principles of pronunciation; accurately tell the meanings of the word and groups of words heard; answer questions from listening to or reading sentences, dialogues or simple tales

- Engage in interpersonal communication using short and simple words by following the models heard; use simple orders and requests; tell their needs in simple words; request and give data about themselves and their friends; tell their own feelings about various objects around them or various activities by following the models heard

- Verbally provide data about themselves and matters around them; categorise words according to the types of persons, animals and objects about which they have heard or read

- Speak and make accompanying gestures by observing social manners/culture of native speakers; tell the names and simple terms about festivals/important days/celebrations and lifestyles of native speakers; participate in language and cultural activities suitable to their age levels

- Tell differences concerning sounds of the alphabet, words, groups of words and simple sentences in foreign languages and those in Thai language

- Tell the terms related to other learning areas

- Listen/speak in simple situations in the classroom

- Use foreign languages to collect relevant terms around them

- Are skilful in using foreign languages (with emphasis on listening and speaking) to communicate about themselves, their families, schools, the surrounding environment, foods, beverages and free time and recreation with a vocabulary of around 300-450 words (concrete words)

- Use one-word sentences and simple sentences in conversations as required for situations in daily life

Grade 6 graduates

- Act in compliance with the orders, requests and instructions that they have heard and read; accurately read aloud sentences, texts, tales and short verses by observing the principles of reading; choose/specify the sentences and text corresponding to the meanings of symbols or signs read; tell the main idea and answer questions after listening to and reading dialogues, simple tales and stories

- Speak/write in an exchange in interpersonal communication; use orders and requests and give instructions; speak/write to express needs; ask for help; accept and refuse to give help in simple situations; speak and write to ask for and give data about themselves, friends, families and matters around them; speak/write to express their feelings about various matters and activities around them, as well as provide brief justifications

- Speak/write to give data about themselves, friends and the surrounding environment; draw pictures, plans, charts and tables to show the various data that they have heard and read; speak/write to show opinions about various matters around them

- Use words, tone of voice, gestures and manners politely and appropriately by observing social manners and culture of native speakers; give data about the festivals/important days/celebrations/lifestyles of native speakers; participate in language and cultural activities in accordance with their interests

- Tell similarities/differences between the pronunciation of various kinds of sentences, use of punctuation marks and word order regarding structures of sentences in foreign languages and in Thai language; compare the similarities/differences between the festivals, celebrations and traditions of native speakers and those of Thais

- Search for and collect the terms related to other learning areas from learning sources and present them through speaking/writing

- Use languages to communicate various situations in the classroom and in school

- Use foreign languages in searching for and collecting various data

- Are skilful in using foreign languages (with emphasis on listening, speaking, reading and writing) to communicate about themselves, their families, schools, the environment, foods, beverages, free time and recreation, health and welfare, selling and buying, and climate with vocabulary of around 1,050-1,200 words (concrete and abstract words)
- Use simple and compound sentences to communicate meanings in various contexts

Standard of Learning and Yearly Indicator for each stage

Strand 1: Language for Communication

Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning

Grade	Indicator	Learning Contents
1	<p>P1/1 Act in compliance with simple orders heard.</p> <p>P1/2 Specify the alphabet and sounds; accurately pronounce and spell simple words by observing principles of reading.</p> <p>P1/3 Choose the pictures corresponding to the meanings of words and groups of words heard.</p> <p>P1/4 Answer questions from listening to matters around them.</p>	<p>Commands in classroom like : Stand up, Sit down, Repeat, Listen and etc.</p> <p>Letter names & sounds / spelling/reading</p> <ul style="list-style-type: none"> - Pronouncing first and final sounds - word stress - Sentence intonation <p>Words, group of words about themselves/family/school/ things around them/food & drink and recreation (about 150-200 words)</p> <p>Reading passages about things around them or stories with illustrations</p> <p>Interrogatives and answers</p> <p>-Yes/No Questions</p> <p>-Wh-Questions: What is it? It's a/an...</p>

Standard F1.2: Endowment with language communication skills for exchange of data and information; efficient expression of feelings and opinions

Grade	Indicator	Learning Contents
1	<p>P1/1 Speak in an exchange with short and simple words in interpersonal communication by following the models heard.</p> <p>P1/2 Use simple orders by following the models heard.</p> <p>P1/3 Express their own simple needs by following the models heard.</p> <p>P1/4 Speak to ask for and give simple data about themselves by following the models heard.</p>	<p>Conversation about Greeting/Leave taking/thanking/apologizing and sentences or texts to introduce oneself like:</p> <p>Hi/Hello/Good morning/Good afternoon/Good evening/I am .../Good bye/Bye/Thank you/I am sorry. etc.</p> <p>Classroom commands</p> <p>Words, idioms and sentences to express needs: I want, please. etc.</p> <p>Words, idioms and sentences about personal information : What is your name? My name is..... I am How are you? I am fine. etc.</p>

Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing

Grade	Indicator	Learning Contents
1	P1/1 Speak to give data about themselves and matters around them.	Words and sentences in speaking for giving information about themselves, close people and things around them like: Name, age, shape, height, things, number1-20, color, size, position of things

Strand 2: Language and Culture

Standard F2.1: **Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places**

Grade	Indicator	Learning Contents
1	P1/1 Speak and make accompanying gestures in accordance with the culture of native speakers. P1/2 Tell the names and vocabulary of native speakers' important festivals. P1/3 Participate in language and cultural activities appropriate to their age levels.	The culture of native speakers like: using body language while speaking to introduce oneself hand shaking/ waving accepting or denying Vocabularies about important festivals of the native speakers like Christmas, New year, Valentine's Language and culture activities Playing game, singing songs, story telling, celebrate Christmas/ New Year/Valentine's

Standard F2.2: **Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language**

Grade	Indicator	Learning Contents
1	P1/1 Specify the alphabet and sounds of the alphabet of foreign languages and Thai language.	Letters/sound of letters in foreign language and Thai

Strand 3: Language and Relationship with Other Learning Areas

Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view

Grade	Indicator	Learning Contents
1	P1/1 Tell the terms related to other learning areas.	Vocabularies related with other learning groups

Strand 4: Language and Relationship with Community and the World

Standard F4.1: Ability to use foreign languages in various situations in school, community and society

Grade	Indicator	Learning Contents
1	P1/1 Listen/speak in simple situations in the classroom.	Using language to listen and speak in simply situations happening in the classroom

Strand 4: Language and Relationship with Community and the World

Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community

Grade	Indicator	Learning Contents
1	P1/1 Use foreign languages to collect relevant terms around them.	Using foreign languages to collect relevant terms around them from the media

Course Syllabus Analyzing of Learning Area of Foreign Languages Primary 1

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning			
P1/1 Act in compliance with simple orders heard.	Commands in classroom like: Stand up, Sit down, Repeat, Listen and etc.	Act in compliance with simple orders heard.	Appreciate of using English in communication.
P1/2 Specify the alphabet and sounds; accurately pronounce and spell simple words by observing principles of reading.	Letter names & sounds / spelling/reading - Pronouncing first and final sounds - word stress - Sentence intonation	Specify the alphabet and sounds; accurately pronounce and spell simple words by observing principles of reading.	Have good attitude for foreign language and appreciate of using English in searching knowledge.
P1/3 Choose the pictures corresponding to the meanings of words and groups of words heard.	Words, group of words about themselves/family/school/ things around	Choose the pictures corresponding to the	Appreciate of using English in searching knowledge.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
	them/food & drink and recreation (about 150-200 words)	meanings of words and groups of words heard.	
P1/4 Answer questions from listening to matters around them.	Reading passages about things around them or stories with illustrations Interrogatives and answers -Yes/No Questions -Wh-Questions: What is it? It's a/an...	Answer questions from listening to matters around them.	Appreciate of using English in communication.
Strand 1: Language for Communication Standard F1.2: Endowment with language communication skills for exchange of data and information; efficient expression of feelings and opinions			
P1/1 Speak in an exchange with short and simple words in interpersonal communication by following the models heard.	Conversation about Greeting /Leave taking /thanking /apologizing and sentences or texts to introduce oneself like: Hi/Hello/Good morning/Good afternoon/Good evening/I am .../Good	Speak in an exchange with short and simple words in interpersonal communication by following	Appreciate of using English in communication.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
	bye/Bye/Thank you/I am sorry. etc.	the models heard.	
P1/2 Use simple orders by following the models heard.	Classroom commands	Use simple orders by following the models heard.	Appreciate of using English in communication and searching knowledge.
P1/3 Express their own simple needs by following the models heard.	Words, idioms and sentences to express needs: I want, please. etc.	Express their own simple needs by following the models heard.	Appreciate and significance of foreign language for communication in daily life.
P1/4 Speak to ask for and give simple data about themselves by following the models heard.	Words, idioms and sentences about personal information : What is your name? My name is..... I am How are you? I am fine. etc.	Speak to ask for and give simple data about themselves by following the models heard.	Appreciate and significance of foreign language for communication in daily life.
Strand 1: Language for Communication Standard F1.3: Ability to present data, information, concepts and views about			

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
various matters through speaking and writing			
P1/1 Speak to give data about themselves and matters around them.	Words and sentences in speaking for giving information about themselves, close people and things around them like: Name, age, shape, height, things, number1-20, color, size, position of things	Speak to give data about themselves and matters around them.	Appreciate of using English in searching knowledge.
Strand 2: Language and Culture Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places			
P1/1 Speak and make accompanying gestures in accordance with the culture of native speakers.	The culture of native speakers like: using body language while speaking to introduce oneself hand shaking/ waving accepting or denying	Speak and make accompanying g gestures in accordance with the culture of native speakers.	Have knowledge and understanding in various stories and culture of global society.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P1/2 Tell the names and vocabulary of native speakers' important festivals.	Vocabularies about important festivals of the native speakers like Christmas, New year, Valentine's	Tell the names and vocabulary of native speakers' important festivals.	Appreciate of using English in communication and searching knowledge and have vision in the way of life.
P1/3 Participate in language and cultural activities appropriate to their age levels.	Language and culture activities Playing game, singing songs, storytelling, celebrate Christmas/ New Year/Valentine's	Participate in language and cultural activities appropriate to their age levels.	Have knowledge and understanding in various stories and culture of global society.
Strand 2: Language and Culture Standard F2.2: Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language			
P1/1 Specify the alphabet and sounds of the alphabet of foreign languages and Thai language.	Letters/sound of letters in foreign language and Thai	Specify the alphabet and sounds of the	Have good attitude for foreign language and

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
		alphabet of foreign languages and Thai language.	appreciate of using English in searching knowledge.
Strand 3: Language and Relationship with Other Learning Areas Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view			
P1/1 Tell the terms related to other learning areas.	Vocabularies related with other learning groups	Tell the terms related to other learning areas.	Appreciate of using English in communication and searching knowledge.
Strand 4: Language and Relationship with Community and the World Standard F4.1: Ability to use foreign languages in various situations in school, community and society			
P1/1 Listen/speak in simple situations in the classroom.	Using language to listen and speak in	Listen/speak in simple	Have good attitude for

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
	simply situations happening in the classroom	situations in the classroom.	foreign language and appreciate of using English in searching knowledge.
Strand 4: Language and Relationship with Community and the World Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community			
P1/1 Use foreign languages to collect relevant terms around them.	Using foreign languages to collect relevant terms around them from the media	Use foreign languages to collect relevant terms around them.	Have good attitude for foreign language and appreciate of using English in searching knowledge.

Standard of Learning and Yearly Indicator for each stage

Strand 1: Language for Communication

Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning

Grade	Indicator	Learning Contents
2	P2/1 Act in compliance with orders and simple requests heard.	Commands and requests: <ul style="list-style-type: none"> - Show me..../ Open your book to page.../ Listen carefully/don't make so much noise and etc. - Come here , please./ Please don't make a loud noise and etc.

Standard F1.2: Endowment with language communication skills for exchange of data and information; efficient expression of feelings and opinions

Grade	Indicator	Learning Contents
2	P2/1 Speak in an exchange with short and simple words in interpersonal communication by following the models heard. P2/2 Use simple orders by following the models heard. P2/3 Express their own simple needs by following the models heard. P2/4 Speak to ask for and give simple data about themselves by following the models heard.	Conversation about Greeting/Leave taking/thanking/apologizing and sentences or texts to introduce oneself like: Hi/Hello/Good morning/Good afternoon/Good evening/I am .../Good bye/Bye/Thank you/I am sorry. etc. Classroom commands Words, idioms and sentences to express needs: I want, please. etc. Words, idioms and sentences about personal information :

		What is your name? My name is.....I am How are you? I am fine. etc.
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Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing

Grade	Indicator	Learning Contents
2	P2/1 Speak to give data about themselves and matters around them.	Words and sentences in speaking for giving information about themselves, close people and things around them like: Name, age, shape, height, things, number1-30, color, size, position of things

Strand 2: Language and Culture

Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places

Grade	Indicator	Learning Contents
2	<p>P2/1 Speak and make accompanying gestures in accordance with the culture of native speakers.</p> <p>P2/2 Tell the names and vocabulary of native speakers' important festivals.</p> <p>P2/3 Participate in language and cultural activities appropriate to their age levels.</p>	<p>The culture of native speakers like: using body language while speaking to introduce oneself hand shaking/ waving accepting or denying</p> <p>Vocabularies about important festivals of the native speakers like Christmas, New Year, Valentine's</p> <p>Language and culture activities</p>

		Playing game, singing songs, story telling, celebrate Christmas/ New Year/Valentine's
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Standard F2.2: Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language

Grade	Indicator	Learning Contents
2	P2/1 Specify the alphabet and sounds of the alphabet of foreign languages and Thai language.	Letters/sound of letters in foreign language and Thai

Strand 3: Language and Relationship with Other Learning Areas

Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view

Grade	Indicator	Learning Contents
2	P2/1 Tell the terms related to other learning areas.	Vocabularies related with other learning groups

Strand 4: Language and Relationship with Community and the World

Standard F4.1: Ability to use foreign languages in various situations in school, community and society

Grade	Indicator	Learning Contents
2	P2/1 Listen/speak in simple situations in the classroom.	Using language to listen and speak in simply situations happening in the classroom

Strand 4: Language and Relationship with Community and the World

Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community

Grade	Indicator	Learning Contents
2	P2/1 Use foreign languages to collect relevant terms around them.	Using foreign languages to collect relevant terms around them from the media

Course Syllabus Analyzing Of Learning Area of Foreign Languages Primary 2

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning			
P2/1 Act in compliance with orders and simple requests heard.	Commands and requests: <ul style="list-style-type: none"> - Show me..../ Open your book to page.../ Listen carefully/don't make so much noise and etc. - Come here , please./ Please don't make a loud noise and etc. 	Act in compliance with orders and simple requests heard.	Appreciate of using English in communication.
Strand 1: Language for Communication Standard F1.2: Endowment with language communication skills for exchange of data and			

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
information; efficient expression of feelings and opinions			
P2/1 Speak in an exchange with short and simple words in interpersonal communication by following the models heard.	Conversation about Greeting/Leave taking/thanking/apologizing and sentences or texts to introduce oneself like: Hi/Hello/Good morning/Good afternoon/Good evening/I am .../Good bye /Bye/Thank you/I am sorry. etc.	Speak in an exchange with short and simple words in interpersonal communication by following the models heard.	Appreciate of using English in communication.
P2/2 Use simple orders by following the models heard.	Classroom commands	Use simple orders by following the models heard.	Appreciate of using English in communication and searching knowledge.
P2/3 Express their own simple needs by following the models heard.	Words, idioms and sentences to express needs: I want ..., please. etc.	Express their own simple needs by following the models heard.	Appreciate and significance of foreign language for communication in daily life.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P2/4 Speak to ask for and give simple data about themselves by following the models heard.	Words, idioms and sentences about personal information : What is your name? My name is..... I am How are you? I am fine. etc.	Speak to ask for and give simple data about themselves by following the models heard.	Appreciate and significance of foreign language for communication in daily life.
Strand 1: Language for Communication Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing			
P2/1 Speak to give data about themselves and matters around them.	Words and sentences in speaking for giving information about themselves, close people and things around them like: Name, age, shape, height, things, number1-30, color, size, position of things	Speak to give data about themselves and matters around them.	Appreciate of using English in searching knowledge.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 2: Language and Culture Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places			
P2/1 Speak and make accompanying gestures in accordance with the culture of native speakers.	The culture of native speakers like: using body language while speaking to introduce oneself hand shaking/ waving accepting or denying	P2/1 Speak and make accompanying gestures in accordance with the culture of native speakers.	Have knowledge and understanding in various stories and culture of global society.
P2/2 Tell the names and vocabulary of native speakers' important festivals.	Vocabularies about important festivals of the native speakers like Christmas, New Year, Valentine's	Tell the names and vocabulary of native speakers' important festivals.	Appreciate of using English in communication and searching knowledge and have vision in the way of life.
P2/3 Participate in language and cultural activities appropriate to their age levels.	Language and culture activities Playing game, singing songs, story telling, celebrate	Participate in language and cultural activities appropriate to their age levels.	Have knowledge and understanding in various stories and culture of global society.

	Christmas/ New Year/Valentine's		
Strand 2: Language and Culture Standard F2.2: Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language			
P2/1 Specify the alphabet and sounds of the alphabet of foreign languages and Thai language.	Letters/sound of letters in foreign language and Thai	Specify the alphabet and sounds of the alphabet of foreign languages and Thai language.	Have good attitude for foreign language and appreciate of using English in searching knowledge.
Strand 3: Language and Relationship with Other Learning Areas Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view			

P2/1 Tell the terms related to other learning areas.	Vocabularies related with other learning groups	Tell the terms related to other learning areas.	Appreciate of using English in communication and searching knowledge.
Strand 4: Language and Relationship with Community and the World Standard F4.1: Ability to use foreign languages in various situations in school, community and society			
P2/1 Listen/speak in simple situations in the classroom.	Using language to listen and speak in simply situations happening in the classroom	Listen/speak in simple situations in the classroom.	Have good attitude for foreign language and appreciate of using English in searching knowledge.
Strand 4: Language and Relationship with Community and the World Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community			
P2/1 Use foreign languages to collect relevant terms around them.	Using foreign languages to collect relevant terms around them from the media	Use foreign languages to collect relevant terms around them.	Have good attitude for foreign language and appreciate of using English in searching knowledge.

Standard of Learning and Yearly Indicator for each stage

Strand 1: Language for Communication

Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning

Grade	Indicator	Learning Contents
3	<p>P3/1 Act in compliance with orders and requests heard or read.</p> <p>P3/2 Pronounce and spell words; accurately read aloud groups of words, sentences and simple chants by observing the principles of reading.</p> <p>P3/3 Choose/ specify the images or symbols corresponding to the meanings of groups of words and sentences heard.</p> <p>P3/4 Answer questions from listening to or reading sentences, dialogues or simple tales.</p>	<p>Classroom commands and requests:</p> <ul style="list-style-type: none"> - Give me a/an..../ draw and color the pictures./ put a/an ...in/on/under a/an.../Don't eat in class etc. - Please take a queue./Can you help me ,please? etc. <p>Words/ group of words/ chants and spelling</p> <p>Dictionary using</p> <p>Reading based on principles of pronunciation:</p> <ul style="list-style-type: none"> - Pronouncing first and final sounds - Words/group of words stress - Sentence intonation <p>Words, group of words /simple sentence about themselves/family/school/ things around them/food & drink and recreation accumulating (about 350-450 words)</p> <p>Sentences/dialogues/ stories with illustrations.</p>

Grade	Indicator	Learning Contents
		<p>The interrogatives and answers:</p> <p>-Yes/No Questions</p> <p>Is/Are/Can.....?</p> <p>Yes,....is/are/can.</p> <p>No,...isn't/aren't/can't. etc.</p> <p>- Wh-Questions</p> <p>What is this/that/it?</p> <p>This/That/It is a/an...</p> <p>How many....?</p> <p>There is/are</p> <p>Where is/are....?</p> <p>It is in/on/under.....</p> <p>They are in/on/under... etc.</p>

Standard F1.2: Endowment with language communication skills for exchange of data and information; efficient expression of feelings and opinions

Grade	Indicator	Learning Contents
3	<p>P3/1 Speak in an exchange with short and simple words in inter-personal communication by following the models heard.</p> <p>P3/2 Use orders and simple requests by following the models heard.</p>	<p>Conversation about</p> <p>Greeting/Leave</p> <p>taking/thanking/apologizing and sentences or texts to introduce oneself like:</p> <p>Hi/Hello/Good morning/Good afternoon/Good evening/I am .../ I am sorry. /How are you? I am fine. Thank you. And you?/ Nice to see you./Nice to see you ,too./ Good bye/Bye./See you soon/later./</p> <p>Thanks./Thank you./ Thank you very much./ You're welcome. etc.</p>

Grade	Indicator	Learning Contents
	<p>P3/3 Express their own simple needs by following the models heard.</p> <p>P3/4 Speak to ask for and give simple data about themselves and their friends by following the models heard.</p> <p>P3/5 Tell their own feelings about various objects around them or various activities by following the models heard.</p>	<p>Classroom commands and requests</p> <p>Words, idioms and sentences to express needs: Please...../ May I go out?/May I come in?. etc.</p> <p>Words, idioms and sentences for asking and giving information about themselves and friends</p> <p>What is your name? My name is.....</p> <p>I am How are you? I am fine.</p> <p>How old are you? I am eight.</p> <p>What time is it? It iso'clock.</p> <p>How many....are there? There is/ are... who is...? He/She is...etc.</p>

Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing

Grade	Indicator	Learning Contents
3	<p>P3/1 Speak to give data about themselves and matters around them.</p> <p>P3/2 Categorise words into groups according to the types of persons, animals and objects based on what they have heard or read.</p>	<p>Words and sentences in speaking for giving information about themselves, close people and things around them like: Name, age, shape, height, things, number1-50, color, size, position of things</p> <p>Words/group of words mean about people, animals and things like can specify/connect the relationship of words/group of words with pictures using mind</p>

Grade	Indicator	Learning Contents
		mapping, chart, diagram, map and plan

Strand 2: Language and Culture

Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places

Grade	Indicator	Learning Contents
3	<p>P3/1 Speak and make accompanying gestures in accordance with social manners/ culture of native speakers.</p> <p>P3/2 Tell the names and simple vocabulary about the festivals/ important days/ celebrations and lifestyles of native speakers.</p> <p>P3/3 Participate in language and cultural activities appropriate to their age levels.</p>	<p>Public manners/ the culture of native speakers:</p> <p>Thanking, apologizing, body language while speaking to introduce oneself, hand shaking/ waving accepting or denying</p> <p>Vocabularies about festivals, important days, celebration and way of life of the native speakers like Christmas day, New Year day, costumes, food & drink</p> <p>Language and culture activities</p> <p>Playing game, singing songs, story telling(with body language), celebrate Christmas/ New Year/Valentine's</p>

Standard F2.2: Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language

Grade	Indicator	Learning Contents
3	P3/1 Tell differences of the sounds of the alphabet, words, groups of words and simple sentences in foreign languages and Thai language.	The differences of sound of letters words, group of words and simple sentences between foreign language and Thai

Strand 3: Language and Relationship with Other Learning Areas

Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view

Grade	Indicator	Learning Contents
3	P3/1 Tell the terms related to other learning areas.	Vocabularies related with other learning groups

Strand 4: Language and Relationship with Community and the World

Standard F4.1: Ability to use foreign languages in various situations in school, community and society

Grade	Indicator	Learning Contents
3	P3/1 Listen/speak in simple situations in the classroom.	Using language to listen and speak in simply situations happening in the classroom

Strand 4: Language and Relationship with Community and the World

Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community

Grade	Indicator	Learning Contents
3	P3/1 Use foreign languages to collect relevant terms around them.	Using foreign languages to collect relevant terms around them from the media

Course Syllabus Analyzing Of Learning Area of Foreign Languages Primary 3

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning			
P3/1 Act in compliance with orders and requests heard or read.	Classroom commands and requests: <ul style="list-style-type: none"> - Give me a/an..../ draw and color the pictures./ put a/an ...in/on/under a/an.../Don't eat in class etc. - Please take a queue./Can you help me ,please? etc. 	Act in compliance with orders and requests heard or read.	Appreciate of using English in communication.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P3/2 Pronounce and spell words; accurately read aloud groups of words, sentences and simple chants by observing the principles of reading.	<p>Words/ group of words/ chants and spelling Dictionary using</p> <p>Reading based on principles of pronunciation:</p> <ul style="list-style-type: none"> - Pronouncing first and final sounds - Words/group of words stress - Sentence intonation 	Pronounce and spell words; accurately read aloud groups of words, sentences and simple chants by observing the principles of reading.	Have good attitude for foreign language and appreciate of using English in searching knowledge.
P3/3 Choose/ specify the images or symbols corresponding to the meanings of groups of words and sentences heard.	<p>Words, group of words /simple sentence about themselves/family/school/ things around them/food & drink and recreation accumulating(about 350-450 words)</p>	Choose/ specify the images or symbols corresponding to the meanings of groups of words and sentences heard.	Appreciate of using English in searching knowledge.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P3/4 Answer questions from listening to or reading sentences, dialogues or simple tales.	<p>Sentences/dialogues/ stories with illustrations.</p> <p>The interrogatives and answers:</p> <p>-Yes/No Questions</p> <p>Is/Are/Can.....?</p> <p>Yes,....is/are/can.</p> <p>No,...isn't/aren't/can't. etc.</p> <p>- Wh-Questions</p> <p>What is this/that/it?</p> <p>This/That/It is a/an...</p> <p>How many.....?</p> <p>There is/are</p> <p>Where is/are.....?</p> <p>It is in/on/under.....</p> <p>They are in/on/under... etc.</p>	<p>Answer questions from listening to or reading sentences, dialogues or simple tales.</p>	<p>Appreciate of using English in communication.</p>

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.2: Endowment with language communication skills for exchange of data and information; efficient expression of feelings and opinions			
P3/1 Speak in an exchange with short and simple words in inter-personal communication by following the models heard.	Conversation about Greeting/Leave taking/thanking/apologizing and sentences or texts to introduce oneself like: Hi/Hello/Good morning/Good afternoon/Good evening/I am .../ I am sorry. /How are you? I am fine. Thank you. And you?/ Nice to see you./Nice to see you ,too./ Good bye/Bye./See you soon/later./ Thanks./Thank you./ Thank you very much./ You're welcome. etc.	Speak in an exchange with short and simple words in inter-personal communication by following the models heard.	Appreciate of using English in communication.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P3/2 Use orders and simple requests by following the models heard.	Classroom commands and requests	Use orders and simple requests by following the models heard.	Appreciate of using English in communication and searching knowledge.
P3/3 Express their own simple needs by following the models heard.	Words, idioms and sentences to express needs: Please...../ May I go out?/May I come in?. etc.	Express their own simple needs by following the models heard.	Appreciate and significance of foreign language for communication in daily life.
P3/4 Speak to ask for and give simple data about themselves and their friends by following the models heard.	Words, idioms and sentences for asking and giving information about themselves and friends What is your name? My name is..... I am How are you? I am fine. How old are you? I am eight.	Speak to ask for and give simple data about themselves and their friends by following the models heard.	Appreciate and significance of foreign language for communication in daily life.
P3/5 Tell their own feelings about various objects around them or various activities by following the models heard.	What time is it? It iso'clock. How many....are there? There is/ are... who is...? He/She is...etc.	Tell their own feelings about various objects around them or various activities by following the models heard.	Appreciate and significance of foreign language for communication in daily life.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing			
P3/1 Speak to give data about themselves and matters around them.	Words and sentences in speaking for giving information about themselves, close people and things around them like: Name, age, shape, height, things, number1-50, color, size, position of things	Speak to give data about themselves and matters around them.	Appreciate of using English in searching knowledge.
P3/2 Categorise words into groups according to the types of persons, animals and objects based on what they have heard or read.	Words/group of words mean about people, animals and things like can specify/connect the relationship of words/group of words with pictures using	Categorise words into groups according to the types of persons, animals and objects based on what they have heard or read.	Appreciate of using English in communication and searching knowledge.

	mind mapping, chart, diagram, map and plan		
Strand 2: Language and Culture Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places			
P3/1 Speak and make accompanying gestures in accordance with social manners/ culture of native speakers.	Public manners/ the culture of native speakers: Thanking, apologizing, body language while speaking to introduce oneself, hand shaking/ waving accepting or denying	Speak and make accompanying gestures in accordance with social manners/ culture of native speakers.	Have knowledge and understanding in various stories and culture of global society.
P3/2 Tell the names and simple vocabulary about the festivals/ important days/ celebrations and lifestyles of native speakers.	Vocabularies about festivals, important days, celebration and way of life of the native speakers like Christmas day, New Year day, costumes, food & drink	Tell the names and simple vocabulary about the festivals/ important days/ celebrations and lifestyles of native speakers.	Appreciate of using English in communication and searching knowledge and have vision in the way of life.

P3/3 Participate in language and cultural activities appropriate to their age levels.	Language and culture activities Playing game, singing songs, story telling(with body language), celebrate Christmas/ New Year/Valentine's	Participate in language and cultural activities appropriate to their age levels.	Have knowledge and understanding in various stories and culture of global society.
Strand 2: Language and Culture Standard F2.2: Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language			
P3/1 Tell differences of the sounds of the alphabet, words, groups of words and simple sentences in foreign languages and Thai language.	The differences of sound of letters words, group of words and simple sentences between foreign language and Thai	Tell differences of the sounds of the alphabet, words, groups of words and simple sentences in foreign languages and Thai language.	Have good attitude for foreign language and appreciate of using English in searching knowledge.
Strand 3: Language and Relationship with Other Learning Areas			

Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view			
P3/1 Tell the terms related to other learning areas.	Vocabularies related with other learning groups	Tell the terms related to other learning areas.	Appreciate of using English in communication and searching knowledge.
Strand 4: Language and Relationship with Community and the World Standard F4.1: Ability to use foreign languages in various situations in school, community and society			
P3/1 Listen/speak in simple situations in the classroom.	Using language to listen and speak in simply situations happening in the classroom	Listen/speak in simple situations in the classroom.	Have good attitude for foreign language and appreciate of using English in searching knowledge.
Strand 4: Language and Relationship with Community and the World Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community			

P3/1 Use foreign languages to collect relevant terms around them.	Using foreign languages to collect relevant terms around them from the media	Use foreign languages to collect relevant terms around them.	Have good attitude for foreign language and appreciate of using English in searching knowledge.
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Standard of Learning and Yearly Indicator for each stage

Strand 1: Language for Communication

Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning

Grade	Indicator	Learning Contents
4	<p>P4/1 Act in compliance with orders, requests and simple instructions heard or read.</p> <p>P4/2 Pronounce and spell words; accurately read aloud groups of words, sentences, simple texts and chants by observing the principles of reading.</p>	<p>Classroom commands/ requests and the suggestions to play game drawing or cooking/ making refreshments</p> <p>-Look at the/here/over there./Say it again./Read and draw./Put a/an ...in/on under a/an.../Don't go over there. etc.</p> <p>-Come over here, please./ Close the windows, please. etc.</p> <p>-You should read everyday./Think before you speak. etc.</p> <p>-Start./My turn./Your turn./Roll the dice./ Count the number./Finish. Etc.</p> <p>-First...../Next...../Then...../After that..../Finally.... etc.</p> <p>Words/ group of words/ chants and spelling</p> <p>Dictionary using</p> <p>Reading based on principles of pronunciation:</p> <ul style="list-style-type: none"> - Pronouncing first and final sounds - Words/group of words stress - Sentence intonation

Grade	Indicator	Learning Contents
4	<p>P4/3 Choose/ specify the pictures or symbols or signs corresponding to the meanings of sentences and short texts heard or read.</p> <p>P4/4 Answer questions from listening to and reading sentences, dialogues and simple tales.</p>	<p>group of words /simple sentence symbols/punctuations / about themselves/family/school/ things around them/food & drink / free time and recreation/health and welfare/ selling-buying/weather accumulating (about 550-700 words)</p> <p>Sentences/dialogues/ stories with illustrations. Questions about the main idea of story like : Who, What, Where</p> <p>-Yes/No Questions</p> <p>Is/Are/Can.....?</p> <p>Yes,....is/are/can.</p> <p>No,...isn't/aren't/can't. etc.</p> <p>Do/Does/Can/Is/Are...?</p> <p>Yes/No ... etc.</p> <p>- Wh-Questions</p> <p>Who is/are...? He/She/It is.../ They are...</p> <p>What...?/Where...?</p> <p>It is.../They are....</p> <p>What is/are ...doing?....is/am/are</p> <p>etc.</p> <p>Or-Question</p> <p>Is this/it a/an...or a/an...?</p> <p>It is a/an.... etc.</p>

Standard F1.2: Endowment with language communication skills for exchange of data and information; efficient expression of feelings and opinions

Grade	Indicator	Learning Contents
4	<p>P4/1 Speak/write in an exchange in interpersonal communication.</p> <p>P4/2 Use orders, requests and simple requests for permission.</p> <p>P4/3 Speak/write to express their own needs and to ask for help in simple situations.</p> <p>P4/4 Speak/write to ask for and give data about themselves, their friends and families.</p>	<p>Conversation about Greeting/Leave taking/thanking/apologizing/ interrupting and sentences/ texts to introduce oneself /friends and close people and using idioms to answer like:</p> <p>Hi/Hello/Good morning/Good afternoon/Good evening/I am .../ I am sorry. /How are you? I am fine. Thank you. And you?/Hello, I am..../Hello,...I am.../This is my sister. Her name is.../Hello,.../ Nice to meet you./Nice to meet you ,too./ Good bye/Bye./See you soon/later./ Thanks./Thank you./</p> <p>Thank you very much./ You're welcome./ It's O.K. etc.</p> <p>The commands, requests and permissions in classroom</p> <p>Words, idioms and sentences to express needs in situations like: I want.../Please...../ May ...?/I need your help./Please help me. etc.</p> <p>Words, idioms and sentences for asking and giving information about themselves, friends and family:</p> <p>What is your name? My name is.....</p> <p>What time is it? It iso'clock.</p>

		How many....are there? There is a/an... / There are... Where is the.....? It is in/on/under.....etc.
	P4/5 Speak to express their own feelings about various matters around them and various activities by following the models heard.	Words and sentences to express the feelings like gladness, sadness, like, dislike, love and hate: I/You/We/They like.../He/She likes .../ I/You/We/They love.../He/She loves ../ I/You/We/They don't like/love/feel... He/She doesn't like/love/feel..... I/You /We/They feel.....

Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing

Grade	Indicator	Learning Contents
4	<p>P4/1 Speak/write to give data about themselves and matters around them.</p> <p>P4/2 Speak/draw pictures to show relationships of various objects around them according to what they have heard or read.</p>	<p>Words and sentences in speaking/writing for giving information about themselves, close people and things around them like: Name, age, shape, height, things, number1-100, Days, Months ,Date, seasons, color, size, position of things</p> <p>Words/ group of words which have the meaning connecting with things around them like: specify/connect the relationship of words/group of words with</p>

Grade	Indicator	Learning Contents
	P4/3 Speak to express simple opinions about matters around them.	<p>pictures using mind mapping, chart, diagram, map and plan</p> <p>Sentences to express opinions about things around them</p>

Strand 2: Language and Culture

Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places

Grade	Indicator	Learning Contents
4	<p>P4/1 Speak and politely make accompanying gestures in accordance with social manners and culture of native speakers.</p> <p>P4/2 Answer questions about festivals/ important days/ celebrations and simple lifestyles of native speakers.</p> <p>P4/3 Participate in language and cultural activities appropriate to their age levels.</p>	<p>Public manners/ the culture of native speakers:</p> <p>Thanking, apologizing, body language while speaking to introduce oneself, hand shaking/ waving/ expressing like or dislike/ accepting or denying</p> <p>Vocabularies about festivals, important days, celebration and way of life of the native speakers like Christmas day, New Year day, Valentine's day, costumes , food & drink</p> <p>Language and culture activities</p> <p>Playing game, singing songs, story telling, role play , celebrate Christmas/ New Year/Valentine's</p>

Standard F2.2: Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language

Grade	Indicator	Learning Contents
4	P4/1 Tell differences of the sounds of the alphabet, words, groups of words, sentences and texts in foreign languages and Thai language.	The differences of sound of letters words, group of words and sentences between foreign language and Thai
Grade	Indicator	Learning Contents
4	P4/2 Tell the similarities/ differences between the festivals and celebrations in the culture of native speakers and those in Thailand.	The similarities/differences of festivals, celebration in native speakers' culture and Thai culture

Strand 3: Language and Relationship with Other Learning Areas

Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view

Grade	Indicator	Learning Contents
4	P4/1 Search for and collect the terms related to other learning areas, and present them through speaking/ writing.	Searching, collecting and presenting the words related to other learning groups

Strand 4: Language and Relationship with Community and the World

Standard F4.1: Ability to use foreign languages in various situations in school, community and society

Grade	Indicator	Learning Contents
4	P4/1 Listen and speak in situations in the classroom and in school.	Using language to listen speak /read in situations happening in classroom and school

Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community

Grade	Indicator	Learning Contents
4	P4/1 Use foreign languages to search for and collect various data.	Using foreign languages to search for and collect various data from the media and different learning sources

Course Syllabus Analyzing of Learning Area of Foreign Languages Primary 4

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning			
P4/1 Act in compliance with orders, requests and simple instructions heard or read.	Classroom commands/ requests and the suggestions to play game drawing or cooking/ making refreshments	Act in compliance with orders, requests and simple instructions heard or read.	Appreciate of using English in communication.
P4/2 Pronounce and spell words; accurately read aloud groups of words, sentences, simple texts and chants by observing the principles of reading.	Words/ group of words/ chants and spelling Dictionary using Reading based on principles of pronunciation: <ul style="list-style-type: none"> - Pronouncing first and final sounds 	Pronounce and spell words; accurately read aloud groups of words, sentences, simple texts and chants by observing the principles of reading.	Have good attitude for foreign language and appreciate of using English in searching knowledge.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
	<ul style="list-style-type: none"> - Words/group of words stress - Sentence intonation 		
P4/3 Choose/ specify the pictures or symbols or signs corresponding to the meanings of sentences and short texts heard or read.	group of words /simple sentence/ symbols/punctuations / about themselves/family/school/ things around them/food &drink / free time and recreation/health and welfare/ selling- buying/weather accumulating (about 550-700 words)	Choose/ specify the pictures or symbols or signs corresponding to the meanings of sentences and short texts heard or read.	Appreciate of using English in searching knowledge.
P4/4 Answer questions from listening to and reading sentences, dialogues and simple tales.	Sentences/dialogues/ stories with illustrations. Questions about the main idea of story like : Who, What, Where	Answer questions from listening to and reading sentences, dialogues and simple tales.	Appreciate of using English in communication.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.2: Endowment with language communication skills for exchange of data and information; efficient expression of feelings and opinions			
P4/1 Speak/write in an exchange in interpersonal communication.	Conversation about Greeting / Leave taking / thanking / apologizing / interrupting and sentences/ texts to introduce oneself /friends and close people and using idioms to answer	Speak/write in an exchange in interpersonal communication.	Appreciate of using English in communication.
P4/2 Use orders, requests and simple requests for permission.	The commands, requests and permissions in classroom	Use orders, requests and simple requests for permission.	Appreciate of using English in communication and searching knowledge.
P4/3 Speak/write to express their own needs and to ask for help in simple situations.	Words, idioms and sentences to express needs in situations	Speak/write to express their own needs and to ask for help in simple situations.	Appreciate and significance of foreign language for communication in daily life.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P4/4 Speak/write to ask for and give data about themselves, their friends and families.	Words, idioms and sentences for asking and giving information about themselves, friends and family	Speak/write to ask for and give data about themselves, their friends and families.	Appreciate and significance of foreign language for communication in daily life.
P4/5 Speak to express their own feelings about various matters around them and various activities by following the models heard.	Words and sentences to express the feelings like gladness, sadness, like, dislike, love and hate	Speak to express their own feelings about various matters around them and various activities by following the models heard.	Appreciate and significance of foreign language for communication in daily life.
Strand 1: Language for Communication Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing			
P4/1 Speak/write to give data about themselves and matters around them.	Words and sentences in speaking/writing for giving information about themselves, close people and things around them like:	Speak/write to give data about themselves and matters around them.	Appreciate of using English in searching knowledge.

	Name, age, shape, height, things, number1-100, Days, Months ,Date, seasons, color, size, position of things		
P4/2 Speak/draw pictures to show relationships of various objects around them according to what they have heard or read.	Words/ group of words which have the meaning connecting with things around them like: specify/connect the relationship of words/group of words with pictures using mind mapping, chart, diagram, map and plan	Speak/draw pictures to show relationships of various objects around them according to what they have heard or read.	Appreciate of using English in communication and searching knowledge.
P4/3 Speak to express simple opinions about matters around them.	Sentences to express opinions about things around them	Speak to express simple opinions about matters around them.	Appreciate of using English in communication and searching knowledge.
Strand 2: Language and Culture Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places			

P4/1 Speak and politely make accompanying gestures in accordance with social manners and culture of native speakers.	Public manners/ the culture of native speakers: Thanking, apologizing, body language while speaking to introduce oneself, hand shaking/ waving/ expressing like or dislike/ accepting or denying	Speak and politely make accompanying gestures in accordance with social manners and culture of native speakers.	Have knowledge and understanding in various stories and culture of global society.
P4/2 Answer questions about festivals/ important days/ celebrations and simple lifestyles of native speakers.	Vocabularies about festivals, important days, celebration and way of life of the native speakers like Christmas day, New Year day, Valentine's day, costumes , food & drink	Answer questions about festivals/ important days/ celebrations and simple lifestyles of native speakers.	Appreciate of using English in communication and searching knowledge and have vision in the way of life.
P4/3 Participate in language and cultural activities appropriate to their age levels.	Language and culture activities Playing game, singing songs, story telling, role play , celebrate Christmas/ New Year/Valentine's	Participate in language and cultural activities appropriate to their age levels.	Have knowledge and understanding in various stories and culture of global society.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 2: Language and Culture Standard F2.2: Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language			
P4/1 Tell differences of the sounds of the alphabet, words, groups of words, sentences and texts in foreign languages and Thai language.	The differences of sound of letters words, group of words and sentences between foreign language and Thai	Tell differences of the sounds of the alphabet, words, groups of words, sentences and texts in foreign languages and Thai language.	Have good attitude for foreign language and appreciate of using English in searching knowledge.
P4/2 Tell the similarities/ differences between the festivals and celebrations in the culture of native speakers and those in Thailand.	The similarities/differences of festivals, celebration in native speakers' culture and Thai culture	Tell the similarities/ differences between the festivals and celebrations in the culture of native speakers and those in Thailand.	Have knowledge and understanding in various stories and culture of global society.

Strand 3: Language and Relationship with Other Learning Areas Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view			
P4/1 Search for and collect the terms related to other learning areas, and present them through speaking/ writing.	Searching, collecting and presenting the words related to other learning groups	Search for and collect the terms related to other learning areas, and present them through speaking/ writing.	Appreciate of using English in communication and searching knowledge.
Strand 4: Language and Relationship with Community and the World Standard F4.1: Ability to use foreign languages in various situations in school, community and society			
P4/1 Listen and speak in situations in the classroom and in school.	Using language to listen speak /read in situations happening in classroom and school	Listen, speak and read/write in various situations in the classroom and in school.	Have good attitude for foreign language and appreciate of using English in searching knowledge.

Strand 4: Language and Relationship with Community and the World Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community			
P4/1 Use foreign languages to search for and collect various data.	Using foreign languages to search for and collect various data from the media and different learning sources	Use foreign languages to search for collect various data.	Have good attitude for foreign language and appreciate of using English in searching knowledge.

Standard of Learning and Yearly Indicator for each stage

Strand 1: Language for Communication

Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning

Grade	Indicator	Learning Contents
5	<p>P5/1 Act in compliance with orders, requests and simple instructions heard and read.</p> <p>P5/2 Accurately read aloud sentences, texts and short poems by observing the principles of reading.</p>	<p>Classroom commands and requests</p> <p>Body language and the suggestions to play game drawing or cooking/making refreshments</p> <p>-Look at the/here/over there./Say it again./Read and draw./Put a/an ...in/on under a/an.../Don't go over there. etc.</p> <p>-Come over here, please./ Close the windows, please./Could you help me, please? etc.</p> <p>-You should read everyday./ Think before you speak. etc.</p> <p>-Start/My turn/Your turn./Roll the dice./ Count the number./Finish. etc.</p> <p>-First...../Next...../Then..../After that..../Finally.... etc.</p> <p>Sentences/texts and poems</p> <p>Dictionary using</p> <p>Reading based on principles of pronunciation:</p> <ul style="list-style-type: none"> - Pronouncing first and final sounds - Words/group of words stress - Sentence intonation

Grade	Indicator	Learning Contents
5	<p>P5/3 Specify/draw the symbols or signs corresponding to the meanings of sentences and short texts heard or read.</p> <p>P5/4 Tell the main points and answers questions from listening to and reading dialogues and simple tales or short texts.</p>	<ul style="list-style-type: none"> - Pronouncing linking sound in passages - Reading poems rhythmically <p>group of words /compound sentences/texts/ symbols/punctuations / about themselves/family/school/ things around them/food & drink / free time and recreation/health and welfare/ selling-buying/weather accumulating (about 750-950 words)</p> <p>Sentences/dialogues/ tales or short stories.</p> <p>Questions about the main idea of story like : Who, What, When, Where</p> <p>-Yes/No Questions</p> <p>Is/Are/Can.....?</p> <p>Yes,....is/are/can.</p> <p>No,...isn't/aren't/can't. etc.</p> <p>Do/Does/Can/Is/Are...?</p> <p>Yes/No ... etc.</p> <p>Wh-Question</p> <p>Who is/are...? He/She/It is.../ They are...</p> <p>What...?/Where...?</p> <p>It is.../They are....</p> <p>What is/are ...doing?....is/am/are etc.</p> <p>Or-Question</p> <p>Is this/it a/an...or a/an...?</p> <p>It is a/an.... etc.</p>

Standard F1.2: Endowment with language communication skills for exchange of data and information; efficient expression of feelings and opinions

Grade	Indicator	Learning Contents
5	P5/1 Speak/write in an exchange in interpersonal communication.	<p>Conversation about Greeting/Leave taking/thanking/apologizing/ praising/interrupting / sentences/ texts to introduce oneself /friends and close people and using idioms to answer like:</p> <p>Hi/Hello/Good morning/Good afternoon/Good evening/I am .../ I am sorry. /How are you? I am fine. Thank you. And you? / Hello, I am..../Hello,...I am.../This is my sister. Her name is.../Hello,.../ Nice to meet you./Nice to meet you ,too./ Good bye/Bye./See you soon/later./ Thanks./Thank you./</p>
	P5/2 Use orders and requests for permission and give simple instructions.	<p>Thank you very much./ You're welcome./ It's O.K. Good/ Very good e</p>
	P5/3 Speak/write to express needs, ask for help and agree and refuse to give help in simple situations.	<p>Two steps commands, requests, permissions and advices</p> <p>Words, idioms and sentences to express needs/ asking for help/accept and deny for offering</p>
	P5/4 Speak/write to ask for and give data about themselves, their friends, families and matters around them.	<p>help: Please.../May..?/I need.../Help me!/Can/Could..? Yes.../No.. etc.</p> <p>Words idioms and sentences for asking or giving personal information friends family and things around them:</p>

Grade	Indicator	Learning Contents
		What do you do? I am a/an What is he/she? He/She is a/an (occupation) How old/tall ...? I am....
5	P5/5 Speak/write to express their own feelings about various matters around them and various activities, as well as provide brief justifications.	Is/Are/Can.....or...? ...is/are/can... Is/Are... going to ...or..?is/are going to....etc. Words and sentences to express the feelings and giving reasons like: like, dislike gladness, sadness, happy, sad , hungry, taste of food I'm.../He/She /It is...You/We/They are....I/You/We/They like.../He/She likes ...because..... I/You/We/They love.../He/She loves....because.... I/You/We/They don't like/love/feel... He/She doesn't like/love/feel...because..... I/You /We/They feel.....because...etc.

Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing

Grade	Indicator	Learning Contents
5	P5/1 Speak/write to give data about themselves and matters around them.	Sentences in speaking/writing for giving personal information, animals, places and activities like personal information, things around them, number1-500, Days, Months ,Date, year, seasons, time,

Grade	Indicator	Learning Contents
	P5/2 Draw pictures, plans and charts to show various data heard or read.	weather, emotion, feelings, color, size, position of things Punctuations Words/group of words/ sentences to express the meaning of various things pictures plans charts and tables
	P5/3 Speak/write to express opinions about various matters around them.	Sentences to express opinions about activities or things around them

Strand 2: Language and Culture

Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places

Grade	Indicator	Learning Contents
5	<p>P5/1 Use words, tone of voice and polite gestures in accordance with social manners and culture of native speakers.</p> <p>P5/2 Answer questions/ tell the importance of festivals/ important days/ celebrations and simple lifestyles of native speakers.</p>	<p>Using words, sound and acting following public manners and the culture of native speakers: Thanking, apologizing, body language while speaking to introduce oneself, hand shaking/ waving/ expressing like or dislike/ blessing/ accepting or denying</p> <p>The information and importance of festivals/ celebrations and way of life of the native speakers like Christmas day, New Year day, Valentine's day, costumes , seasons, food & drink</p> <p>Language and culture activities</p>

Grade	Indicator	Learning Contents
	P5/3 Participate in language and cultural activities in accordance with their interests.	Playing game, singing songs, story telling, role play , Thanks giving/celebrate Christmas/ New Year/Valentine's

Standard F2.2: **Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language**

Grade	Indicator	Learning Contents
5	P5/1 Tell similarities/ differences between pronunciation of various kinds of sentences, use of punctuation marks and word order in accordance with structures of sentences in foreign languages and Thai language. P5/2 Tell the similarities/ differences between the festivals and celebrations of native speakers and those of Thais.	The similarities and differences of pronunciation of sentences in foreign language and Thai The using of punctuation, words ordering in sentences of foreign language and Thai The similarities/differences of festivals, celebration in native speakers' culture and Thai culture

Strand 3: Language and Relationship with Other Learning Areas

Standard F3.1: **Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view**

Grade	Indicator	Learning Contents
5	P5/1 Search for and collect the terms related to other learning areas, and present them through speaking/ writing.	Searching, collecting and presenting the words related to other learning groups

Strand 4: Language and Relationship with Community and the World

Standard F4.1: Ability to use foreign languages in various situations in school, community and society

Grade	Indicator	Learning Contents
5	P5/1 Listen, speak and read/write in various situations in the classroom and in school.	Using language to listen speak read and write in situations happening in classroom and school

Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community

Grade	Indicator	Learning Contents
5	P5/1 Use foreign languages to search for collect various data.	Using foreign languages to search for and collect various data from the media and different learning sources

Course Syllabus Analyzing of Learning Area of Foreign Languages Primary 5

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning			
P5/1 Act in compliance with orders, requests and simple instructions heard and read.	Classroom commands and requests Body language and the suggestions to play game/drawing or cooking/making refreshments	Act in compliance with orders, requests and simple instructions heard and read.	Appreciate of using English in communication.
P5/2 Accurately read aloud sentences, texts and short poems by observing the principles of reading.	Dictionary using Reading based on principles of pronunciation: <ul style="list-style-type: none"> - Pronouncing first and final sounds - Words/group of words stress 	Accurately read aloud sentences, texts and short poems by observing the principles of reading.	Have good attitude for foreign language and appreciate of using English in searching knowledge.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
	<ul style="list-style-type: none"> - Sentence intonation - Pronouncing linking sound in passages - Reading poems rhythmically 		
P5/3 Specify/draw the symbols or signs corresponding to the meanings of sentences and short texts heard or read.	group of words /compound sentences/texts/symbols/punctuations / about themselves/family/school/ things around them/food &drink / free time and recreation/health and welfare/ selling-buying/weather accumulating(about 750-950 words)	Specify/draw the symbols or signs corresponding to the meanings of sentences and short texts heard or read.	Appreciate of using English in searching knowledge.
P5/4 Tell the main points and answers questions from listening to and reading dialogues and simple tales or short texts.	Sentences/dialogues/ tales or short stories. Questions about the main idea of story like : Who, What, When, Where	Tell the main points and answers questions from listening to and reading dialogues and simple tales or short texts.	Appreciate of using English in communication.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.2: Endowment with language communication skills for exchange of data and information; efficient expression of feelings and opinions			
P5/1 Speak/write in an exchange in interpersonal communication.	Conversation about Greeting /Leave taking /thanking /apologizing / praising/interrupting / sentences/ texts to introduce oneself /friends and close people and using idioms to answer	Speak/write in an exchange in interpersonal communication.	Appreciate of using English in communication.
P5/2 Use orders and requests for permission and give simple instructions.	Two steps commands, requests, permissions and advices	Use orders and requests for permission and give simple instructions.	Appreciate of using English in communication and searching knowledge.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P5/3 Speak/write to express needs, ask for help and agree and refuse to give help in simple situations.	Words, idioms and sentences to express needs/ asking for help/accept and deny for offering help	Speak/write to express needs, ask for help and agree and refuse to give help in simple situations.	Appreciate and significance of foreign language for communication in daily life.
P5/4 Speak/write to ask for and give data about themselves, their friends, families and matters around them.	Words idioms and sentences for asking or giving personal information friends family and things around them.	Speak/write to ask for and give data about themselves, their friends, families and matters around them.	Appreciate and significance of foreign language for communication in daily life.
P5/5 Speak/write to express their own feelings about various matters around them and various activities, as well as provide brief justifications.	Words and sentences to express the feelings and giving reasons	Speak/write to express their own feelings about various matters around them and various activities, as well as provide brief justifications.	Appreciate and significance of foreign language for communication in daily life.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing			
P5/1 Speak/write to give data about themselves and matters around them.	Sentences in speaking/writing for giving personal information, animals, places and activities like personal information, things around them, number1-500, Days, Months, Date, year, seasons, time, weather, emotion, feelings, color, size, position of things	Speak/write to give data about themselves and matters around them.	Appreciate of using English in searching knowledge.
P5/2 Draw pictures, plans and charts to show various data heard or read.	Words/group of words/ sentences to express the meaning of various things pictures plans charts and tables	Draw pictures, plans and charts to show various data heard or read.	Appreciate of using English in communication and searching knowledge.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P5/3 Speak/write to express opinions about various matters around them.	Sentences to express opinions about activities or things around them	Speak/write to express opinions about various matters around them.	Appreciate of using English in communication and searching knowledge.
Strand 2: Language and Culture Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places			
P5/1 Use words, tone of voice and polite gestures in accordance with social manners and culture of native speakers.	Using words, sound and acting following public manners and the culture of native speakers: Thanking, apologizing, body language while speaking to introduce oneself, hand shaking/ waving/ expressing like or dislike/ blessing/ accepting or denying	Use words, tone of voice and polite gestures in accordance with social manners and culture of native speakers.	Have knowledge and understanding in various stories and culture of global society.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P5/2 Answer questions/ tell the importance of festivals/ important days/ celebrations and simple lifestyles of native speakers.	The information and importance of festivals/ celebrations and way of life of the native speakers like Christmas day, New Year day, Valentine's day, costumes, seasons, food & drink	Answer questions/ tell the importance of festivals/ important days/ celebrations and simple lifestyles of native speakers.	Appreciate of using English in communication and searching knowledge and have vision in the way of life.
P5/3 Participate in language and cultural activities in accordance with their interests.	Language and culture activities Playing game, singing songs, story telling, role play , Thanks giving/celebrate Christmas/ New Year/Valentine's	Participate in language and cultural activities in accordance with their interests.	Have knowledge and understanding in various stories and culture of global society.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 2: Language and Culture Standard F2.2: Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language			
P5/1 Tell similarities/ differences between pronunciation of various kinds of sentences, use of punctuation marks and word order in accordance with structures of sentences in foreign languages and Thai language.	The similarities and differences of pronunciation of sentences in foreign language and Thai The using of punctuation, words ordering in sentences of foreign language and Thai	Tell similarities/ differences between pronunciation of various kinds of sentences, use of punctuation marks and word order in accordance with structures of sentences in foreign languages and Thai language.	Have good attitude for foreign language and appreciate of using English in searching knowledge.
P5/2 Tell the similarities/ differences between the festivals and celebrations of native speakers and those of Thais.	The similarities/differences of festivals, celebration in native	Tell the similarities/ differences between the festivals and	Have knowledge and understanding in various

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
	speakers' culture and Thai culture	celebrations of native speakers and those of Thais.	stories and culture of global society.
Strand 3: Language and Relationship with Other Learning Areas Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view			
P5/1 Search for and collect the terms related to other learning areas, and present them through speaking/ writing.	Searching, collecting and presenting the words related to other learning groups	Search for and collect the terms related to other learning areas, and present them through speaking/ writing.	Appreciate of using English in communication and searching knowledge.
Strand 4: Language and Relationship with Community and the World Standard F4.1: Ability to use foreign languages in various situations in school, community and society			

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P5/1 Listen, speak and read/write in various situations in the classroom and in school.	Using language to listen speak read and write in situations happening in classroom and school	Listen, speak and read/write in various situations in the classroom and in school.	Have good attitude for foreign language and appreciate of using English in searching knowledge.
Strand 4: Language and Relationship with Community and the World Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community			
P5/1 Use foreign languages to search for collect various data.	Using foreign languages to search for and collect various data from the media and different learning sources	Use foreign languages to search for collect various data.	Have good attitude for foreign language and appreciate of using English in searching knowledge.

Standard of Learning and Yearly Indicator for each stage

Strand 1: Language for Communication

Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning

Grade	Indicator	Learning Contents
6	P6/1 Act in compliance with orders, requests and instructions heard and read.	<p>The commands, requests, body language and the suggestions to play game/drawing or cooking/making refreshments and invention</p> <p>-Look at the/here/over there./Say it again./Read and draw./Put a/an ...in/on under a/an.../Don't go over there. etc.</p> <p>-Come over here, please./ Close the windows, please./Could/Can you help me, please? please look up the meaning in a dictionary etc.</p> <p>-You should read everyday./Think before you speak. etc.</p> <p>-Start./My turn./Your turn./Roll the dice./Count the number./Finish. Etc.</p> <p>-First...../Next...../Then...../After that.../Finally.... etc.</p>
	P6/2 Accurately read aloud texts, tales and short poems by observing the principles of reading.	<p>Texts, tales and poems</p> <p>Dictionary using</p> <p>Reading based on principles of pronunciation:</p> <ul style="list-style-type: none"> - Pronouncing first and final sounds - Words/group of words stress - Sentence intonation - Pronouncing linking sound in passages - Reading poems rhythmically

Grade	Indicator	Learning Contents
6	<p>P6/3 Choose/specify the sentences or short texts corresponding to the meanings of symbols or signs read.</p> <p>P6/4 Tell the main idea and answer questions from listening to and reading dialogues, simple tales and stories.</p>	<p>Sentences or texts , symbols, punctuations about themselves/family/school/ things around them/food & drink / free time and recreation/health and welfare/ selling-buying/weather accumulating(about 1,050-1,200 words)</p> <p>Sentences, dialogues, tales or stories</p> <p>Questions about the main idea of story like : Who, What, When, Where, How, Why</p> <p>-Yes/No Questions</p> <p>Is/Are/Can.....?</p> <p>Yes,...is/are/can.</p> <p>No,...isn't/aren't/can't. etc.</p> <p>Do/Does/Can/Is/Are...?</p> <p>Yes/No ... etc.</p> <p>Wh-Question</p> <p>Who is/are...? He/She/It is.../ They are...</p> <p>What...?/Where...?</p> <p>It is.../They are....</p> <p>What is/are ...doing?....is/am/are etc.</p> <p>Or-Question</p> <p>Is this/it a/an...or a/an...?</p> <p>It is a/an....</p> <p>Is/Are/Was/Were/Did ...or...? etc.</p>

Standard F1.2: Endowment with language communication skills for exchange of data and information; efficient expression of feelings and opinions

Grade	Indicator	Learning Contents
6	P6/1 Speak/write in an exchange in interpersonal communication.	<p>Conversation about Greeting/Leave taking/thanking/apologizing/ praising/interrupting / sentences/ texts to introduce oneself /friends and close people and using idioms to answer like:</p> <p>Hi/Hello/Good morning/Good afternoon/Good evening/I am .../ I am sorry. /How are you? I am fine./Very well./Thank you. And you?</p> <p>Hello, I am.../Hello,...I am.../This is my sister. Her name is.../Hello,.../ Nice to see you./Nice to see you ,too./ Good bye/Bye./See you soon/later./ Great!/Good./Very good./ Thanks./Thank you./ Thank you very much./ You're welcome./ It's O.K./That's O.K./ That's all right./ Not at all./ Don't worry./ Never mind./ Excuse me./ Excuse me, Sir./ Miss./ Madam. etc.</p>
6	<p>P6/2 Use orders requests and give instructions.</p> <p>P6/3 Speak/write to express needs, ask for help and agree and refuse to give help in simple situations.</p>	<p>Two –three steps commands, requests, permissions and advices</p> <p>Words, idioms and sentences to express needs/ asking for help/accept and deny for offering help: Please.../May..?/I need.../Help me!/Can/Could..? Yes.../No.. etc.</p>

Grade	Indicator	Learning Contents
	<p>P6/4 Speak and write to ask for and give data about themselves, their friends, families and matters around them.</p> <p>P6/5 Speak/write to express their own feelings about various matters around them and various activities, as well as provide brief justifications.</p>	<p>Words idioms and sentences for asking or giving personal information friends family and things around them:</p> <p>What do you do? I am a/an</p> <p>What is he/she? He/She is a/an (occupation) How old/tall ...? I am....</p> <p>Is/Are/Can.....or...? ...is/are/can...</p> <p>Is/Are... going to ...or..?</p> <p>....is/are going to....etc.</p> <p>Words and sentences to express the feelings and giving reasons like: like, dislike gladness, sadness, happy, sad , hungry, taste of food, beautiful, ugly, loud, good, bad :</p> <p>I'm.../He/She /It is...You/We/They are....I/You/We/They like.../He/She likes ...because..... I/You/We/They love.../He/She loves....because....</p> <p>I/You/We/They don't like/love/feel...</p> <p>He/She doesn't like/love/feel...because.....</p> <p>I/You /We/They feel.....because...</p> <p>How is the? It's good/tasty beautiful. etc.</p>

Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing

Grade	Indicator	Learning Contents
6	<p>P6/1 Speak/write to give data about themselves, their friends and the environment around them.</p> <p>P6/2 Draw pictures, plans, charts and tables to show various data heard or read.</p> <p>P6/3 Speak/write to express opinions about various matters around them.</p>	<p>Sentences and texts for giving information about themselves, routine, friends, animals, environment and activities like personal information, things around them, number1-1,000, ordinal numbers ,Days , Months ,Date, year, seasons, time, doing activities weather, emotion, feelings, color, size, position of things .giving directions</p> <p>Punctuations</p> <p>Words/group of words/ sentences to express the meaning of various things pictures plans charts, maps and tables</p> <p>Sentences to express opinions</p>

Strand 2: Language and Culture

Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places

Grade	Indicator	Learning Contents
6	<p>P6/1 Use words, tone of voice, gestures and manners politely and appropriately by observing the social manners and culture of native speakers.</p> <p>P6/2 Give data about the festivals/ important days/ celebrations/ lifestyles of native speakers.</p> <p>P6/3 Participate in language and cultural activities in accordance with their interests.</p>	<p>Using words, sound and acting following public manners and the culture of native speakers:</p> <p>Thanking, apologizing, body language while speaking to introduce oneself, hand shaking/ waving/ expressing like or dislike/ blessing/ accepting or denying</p> <p>The information and importance of festivals/ celebrations and way of life of the native speakers like Christmas day, New Year day, Valentine's day, costumes , seasons, food & drink</p> <p>Language and culture activities</p> <p>Playing game, singing songs, story telling, role play , Thanks giving/celebrate Christmas/ New Year/Valentine's</p>

Standard F2.2: Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language

Grade	Indicator	Learning Contents
6	P6/1 Tell similarities/ differences between pronunciation of various kinds of sentences, use of	The similarities and differences of pronunciation of sentences in foreign language and Thai

Grade	Indicator	Learning Contents
	punctuation marks and word order in accordance with structures of sentences in foreign languages and Thai language. P6/2 Compare the differences/similarities between the festivals, celebrations and traditions of native speakers and those of Thais.	The using of punctuation , words ordering in sentences of foreign language and Thai Compare and explain the similarities and differences between way of life and culture of the native speakers and Thai Applying the culture of native speakers in their life

Strand 3: Language and Relationship with Other Learning Areas

Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view

Grade	Indicator	Learning Contents
6	P6/1 Search for and collect the terms related to other learning areas from learning sources, and present them through speaking/ writing.	Searching, collecting and presenting the words related to other learning groups

Strand 4: Language and Relationship with Community and the World

Standard F4.1: Ability to use foreign languages in various situations in school, community and society

Grade	Indicator	Learning Contents
6	P6/1 Use language for communication in various situations in the classroom and in school.	Using language to communicate in situations happening in classroom and school

Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community

Grade	Indicator	Learning Contents
6	P6/1 Use foreign languages to search for and collect various data.	Using foreign languages to search for and collect various data from the media and different learning sources

Course Syllabus Analyzing Of Learning Area of Foreign Languages Primary 6

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.1: Understanding of and capacity to interpret what has been heard and read from various types of media, and ability to express opinions with proper reasoning			
P6/1 Act in compliance with orders, requests and simple instructions heard and read.	The commands, requests, body language and the suggestions to play game/drawing or cooking/making refreshments and invention	Act in compliance with orders, requests and simple instructions heard and read.	Appreciate of using English in communication.
P6/2 Accurately read aloud texts, tales and short poems by observing the principles of reading.	Texts, tales and poems Dictionary using Reading based on principles of pronunciation: - Pronouncing first and final sounds	Accurately read aloud texts, tales and short poems by observing the principles of reading.	Have good attitude for foreign language and appreciate of using English in searching knowledge.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
	<ul style="list-style-type: none"> - Words/group of words stress - Sentence intonation - Pronouncing linking sound in passages - Reading poems rhythmically 		
P6/3 Choose/specify the sentences or short texts corresponding to the meanings of symbols or signs read.	Sentences or texts , symbols, punctuations about themselves/family/school/ things around them/food &drink / free time and recreation/health and welfare/ selling-buying/weather accumulating(about 1,050-1,200 words)	Choose/specify the sentences or short texts corresponding to the meanings of symbols or signs read.	Appreciate of using English in searching knowledge.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P6/4 Tell the main idea and answer questions from listening to and reading dialogues, simple tales and stories.	Sentences, dialogues, tales or stories Questions about the main idea of story like: Who, What, When, Where, How, Why	Tell the main idea and answer questions from listening to and reading dialogues, simple tales and stories.	Appreciate and significance of foreign language for communication in daily life.
Strand 1: Language for Communication Standard F1.2: Endowment with language communication skills for exchange of data and information; efficient expression of feelings and opinions			
P6/1 Speak/write in an exchange in interpersonal communication.	Conversation about Greeting /Leave taking /thanking /apologizing / praising/interrupting / sentences/ texts to introduce oneself /friends and close people and using idioms to answer	Speak/write in an exchange in interpersonal communication.	Appreciate of using English in communication.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P6/2 Use orders requests and give instructions.	Two - three steps commands, requests, permissions and advices	Use orders requests and give instructions.	Appreciate of using English in communication and searching knowledge.
P6/3 Speak/write to express needs, ask for help and agree and refuse to give help in simple situations.	Words, idioms and sentences to express needs/ asking for help/accept and deny for offering help	Speak/write to express needs, ask for help and agree and refuse to give help in simple situations.	Appreciate of using English in communication and searching knowledge.
P6/4 Speak and write to ask for and give data about themselves, their friends, families and matters around them.	Words idioms and sentences for asking or giving personal information friends family and things around them.	Speak and write to ask for and give data about themselves, their friends, families and matters around them.	Appreciate of using English in communication and searching knowledge.
P6/5 Speak/write to express their own feelings about various matters around them and various activities, as well as provide brief justifications.	Words and sentences to express the feelings and giving reasons	Speak/write to express their own feelings about various matters around them and various activities, as well as provide brief justifications.	Appreciate and significance of foreign language for communication in daily life.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Language for Communication Standard F1.3: Ability to present data, information, concepts and views about various matters through speaking and writing			
P6/1 Speak/write to give data about themselves, their friends and the environment around them.	Sentences and texts for giving information about themselves, routine, friends, animals, environment and activities like personal information, things around them, number1-1,000, ordinal numbers ,Days , Months ,Date, year, seasons, time, doing activities weather, emotion, feelings, color, size, position of things .giving directions Punctuations	Speak/write to give data about themselves, their friends and the environment around them.	Appreciate of using English in communication and searching knowledge and have vision in the way of life.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P6/2 Draw pictures, plans, charts and tables to show various data heard or read.	Words/group of words/ sentences to express the meaning of various things pictures plans charts maps and tables	Draw pictures, plans, charts and tables to show various data heard or read.	Appreciate of using English in communication and searching knowledge.
P6/3 Speak/write to express opinions about various matters around them.	Sentences to express opinions	Speak/write to express opinions about various matters around them.	Appreciate and significance of foreign language for communication in daily life.
Strand 2: Language and Culture Standard F2.1: Appreciation of the relationship between language and culture of native speakers and capacity for use of language appropriate to occasions and places			
P6/1 Use words, tone of voice, gestures and manners politely and appropriately by observing the social manners and culture of native speakers.	Using words, sound and acting fallowing public manners and the culture of native speakers: Thanking, apologizing, body language while speaking to	Use words, tone of voice, gestures and manners politely and appropriately by observing the social manners and culture of native speakers.	Have knowledge and understanding in various stories and culture of global society.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
	introduce oneself, hand shaking/ waving/ expressing like or dislike/ blessing/ accepting or denying		
P6/2 Give data about the festivals/ important days/ celebrations/ lifestyles of native speakers.	The information and importance of festivals/ celebrations and way of life of the native speakers like Christmas day, New Year day, Valentine's day, costumes , seasons, food & drink	Give data about the festivals/ important days/ celebrations/ lifestyles of native speakers.	Have knowledge and understanding in various stories and culture of global society.
P6/3 Participate in language and cultural activities in accordance with their interests.	Language and culture activities Playing game, singing songs, story telling, role play , Thanks giving/celebrate Christmas/ New Year/Valentine's	Participate in language and cultural activities in accordance with their interests.	Have knowledge and understanding in various stories and culture of global society.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 2: Language and Culture Standard F2.2: Appreciation of similarities and differences between language and culture of native and Thai speakers, and capacity for accurate and appropriate use of language			
P6/1 Tell similarities/ differences between pronunciation of various kinds of sentences, use of punctuation marks and word order in accordance with structures of sentences in foreign languages and Thai language.	The similarities and differences of pronunciation of sentences in foreign language and Thai The using of punctuation, words ordering in sentences of foreign language and Thai	Tell similarities/ differences between pronunciation of various kinds of sentences, use of punctuation marks and word order in accordance with structures of sentence in foreign languages and Thai language.	Have good attitude for foreign language and appreciate of using English in searching knowledge.
P6/2 Compare the differences/similarities between the festivals, celebrations and traditions of native speakers and those of Thais.	Compare and explain the similarities and differences between way of life and culture of the native speakers and Thai Applying the culture of native speakers in their life	Compare the differences/similarities between the festivals, celebrations and traditions of native speakers and those of Thais.	Have knowledge and understanding in various stories and culture of global society.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 3: Language and Relationship with Other Learning Areas Standard F3.1: Usage of foreign languages to link knowledge with other learning areas, as foundation for further development and to seek knowledge and widen one's world view			
P6/1 Search for and collect the terms related to other learning areas from learning sources, and present them through speaking/ writing.	Searching, collecting and presenting the words related to other learning groups	Search for and collect the terms related to other learning areas from learning sources, and present them through speaking/ writing.	Appreciate of using English in communication and searching knowledge.
Strand 4: Language and Relationship with Community and the World Standard F4.1: Ability to use foreign languages in various situations in school, community and society			
P6/1 Use language for communication in various situations in the classroom and in school.	Using language to communicate in situations happening in classroom and school	Use language for communication in various situations in the classroom and in school.	Have good attitude for foreign language and appreciate of using English in searching knowledge.

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 4: Language and Relationship with Community and the World Standard F4.2: Usage of foreign languages as basic tools for further education, livelihood and exchange of learning with the world community			
P6/1 Use foreign languages to search for collect various data.	Using foreign languages to search for and collect various data from the media and different learning sources	Use foreign languages to search for collect various data.	Have good attitude for foreign language and appreciate of using English in searching knowledge.

Learning Area of Science

Why it is necessary to learn science

Science plays an important role in our present and future world communities, as it concerns all of us in our daily lives and livelihoods. Science also involves technologies, instruments, devices and various products at our disposal, which facilitate our life and work. All these benefit from our scientific knowledge, which is combined with creativity as well as other disciplines. Science enables us to develop our thinking skills in various respects—logical, creative, analytical and critical. It also enables us to acquire essential investigative skills for seeking knowledge, and allows the ability for systematic problem-solving, and for verifiable decision-making based on diverse data and evidences. Science is essential to the modern world, which is intrinsically a knowledge society. All of us therefore need to be provided with scientific knowledge so as acquire knowledge and understanding of nature and man-made technologies that can be applied through logical, creative and moral approaches.

What is learned in science

The learning area of science is aimed at enabling learners to learn this subject with emphasis on linking knowledge with processes, acquiring essential skills for investigation, building knowledge through investigative processes, seeking knowledge and solving various problems. Learners are allowed to participate in all stages of learning, with activities organized through diverse practical work suitable to their levels. The main content areas are prescribed as follows:

- **Living Things and Processes of Life:** living things; basic units of living things; structures and functions of various systems of living things and processes of life; biodiversity; genetic transmission; functioning of various systems of living things, evolution and diversity of living things and biotechnology
- **Life and the Environment:** diverse living things in the environment; relationship between living things and the environment; relationships among living things in the eco-system; importance of natural resources, and utilization and management of natural resources at local, national and global levels; factors affecting survival of living things in various environments
- **Substances and Properties of Substances:** properties of materials and substances; binding forces between particles; changes in the state of substances; solution formation and chemical reaction of substances, chemical equations and separation of substances

- **Forces and Motion:** nature of electromagnetic, gravitational and nuclear forces; forces acting on objects; motion of objects; frictional forces; moment of variety of motions in daily life
- **Energy:** energy and life; energy transformation; properties and phenomena of light, sound, electrical circuits, electromagnetic waves, radioactivity and nuclear reactions; interrelationship between substances and energy; energy conservation; effects of utilization of energy on life and the environment
- **Change Process of the Earth:** structure and components of the Earth; geological resources; physical properties of soil, rock, water and air; properties of the Earth's surface and atmosphere; change processes of the Earth's crust; geological phenomena; factors affecting atmospheric change
- **Astronomy and Space:** evolution of the solar system; galaxies; the universe; interrelationship and effects on living things on Earth; relationship between the sun, the moon and Earth; importance of space technology
- **Nature of Science and Technology:** scientific processes; investigation for seeking knowledge, problem-solving, and scientific mind

Learners' Quality

Grade 3 graduates

- Understand general characteristics of living things and the existence of diverse living things in the local environment
- Understand the phenomena and changes in materials in the surroundings; natural forces; forms of energy
- Understand physical properties of soil, rock, water, air, the sun and stars
- Pose questions about living things, materials and objects as well as various phenomena in the surroundings; observe, explore and verify with the use of simple instruments, and communicate what has been learned through story-telling, writing or drawing pictures
- Apply scientific knowledge and processes in life and search for additional knowledge; implement the projects or work assignments as prescribed or in accord with their interests
- Show enthusiasm, interest in learning and appreciation of the environment around them; show kindness and care and concern for other living things
- Carry out assignments with determination, care, economy and honesty until successfully complete, and work happily with others

Grade 6 graduates

- Understand structure and function of various systems of living things and relationships among diverse living things in different environments
- Understand properties and distribution of groups of materials; states of substances; properties of substances and causing change in substances; substances in daily life; simple methods of separating substances
- Understand effects of force acting on objects; pressure; basic principles of buoyancy; properties and basic phenomena of light, sound and electrical circuits.
- Understand characteristics, components and properties of the Earth's surface and atmosphere; relationship between the sun, Earth and the moon, which affects natural phenomena
- Pose questions about what is to be learned; give estimates of several possible answers; plan, investigate and verify by applying tools and devices; analyse data and communicate knowledge obtained from investigation and verification
- Apply scientific knowledge and processes in life and search for additional knowledge; implement projects or tasks as prescribed or in accord with their interests
- Show interest, determination, responsibility, care and honesty in seeking knowledge
- Are aware of the value of knowledge of science and technology; show appreciation, honour and respect of inventors' rights to their achievements
- Show recognition, care and concern as evident in conscientious behaviour for utilization, protection and conservation of natural resources and the environment
- Work constructively with others; be ready to express their opinions and recognise views of others

Strand 1: Living and Family

Standard Sc1.1: Understanding basic units of living things; relationship between structures and functions of living things, which are interlinked; investigative process for seeking knowledge; ability to communicate acquired knowledge that could be applied to one's life and care for living things

Grade	Indicator	Learning Contents
1	<p>P1/1 Compare differences between living things and non-living things.</p> <p>P1/2 Observe and explain Characteristics and functions of external structures of plants and animals.</p> <p>P1/3 Observe and explain characteristics, functions and importance of external human organs as well as health care.</p>	<ul style="list-style-type: none">● The living things have different character from the non-living thing. The living things will have the movement, have a meal, defecate, breathe, grow up, reproduce and respond the motivation but the non-living thing won't have the character below● Outside structure of the plant for example: root, trunk and each part perform in differently● Outside structure of animal for example: eyes, ears, nose, mouth, foot and legs each part performs in different● Outside organ of a human has the character and different duty. These organs are significant for the living then must look after and protect the organ away from dangerous
2	<p>P 2/1 Experiment and explain that water and light are essential factors for plant life.</p>	<ul style="list-style-type: none">● The plant wants the water and the light in the progress of living

Grade	Indicator	Learning Contents
	<p>P2/2 Explain that nutrients, water and air are essential factors for the life and growth of plants and animals, and apply acquired knowledge for useful purposes.</p> <p>P2/3 Explore and explain abilities of plants and animals to respond to light, temperature and touch.</p> <p>P2/4 Explore and explain the ability of the human body to respond to light, temperature and touch.</p> <p>P2/5 Explain the factors essential for the life and growth of human beings.</p>	<ul style="list-style-type: none"> ● The plant and animal want food, water, air for the living lives and the progress ● Lead the knowledge goes to apply in take care of plant and animal for grow up well ● The plant and animal respond with light, temperature and touch ● Human body can respond with light, temperature and touch
3	-	-
4	<p>P4/1 Experiment and explain functions of bundles and stomas of plants.</p> <p>P4/2 Explain that water, carbon dioxide, light and chlorophyll are some of the factors essential for growth and photosynthesis.</p>	<ul style="list-style-type: none"> ● Within the trunk of the plant has a pipe transport for transport water and food in leaf have a mouth that's performs to disgorge the water ● Important factor for the growth and synthetic with the light of the plant for example: water, carbon dioxide gas, light and the chlorophyll
	<p>P4/3 Experiment and explain responses of plants to light, sound and touch.</p> <p>P4/4 Explain behaviour of animals responding to light, temperature and</p>	<ul style="list-style-type: none"> ● The plant has the respond with the light, sound and the touch which be outside environment ● The behavior of animal be the expression of animal in the different character for respond with the

Grade	Indicator	Learning Contents
	touch, and apply acquired knowledge for useful purposes.	<p data-bbox="995 259 1522 360">motivation example: light, temperature, touch</p> <ul data-bbox="948 394 1522 685" style="list-style-type: none"> <li data-bbox="948 394 1522 685">● Lead the knowledge about the behavior of animal goes to use, the advantage in arrangement environment are appropriate the living of animal and for develop the agro-industry
5	<p data-bbox="371 723 924 869">P5/1 Observe and specify components of flowers and structures involved in reproduction of angiosperms.</p> <p data-bbox="371 1182 924 1373">P5/2 Explain reproduction of flowers, plants, plant propagation, and apply acquired knowledge for useful purposes.</p>	<ul data-bbox="948 723 1522 1697" style="list-style-type: none"> <li data-bbox="948 723 1522 835">● Generally compose, the petal feeds, petal, male pistil and female pistil <li data-bbox="948 857 1522 1171">● The components of that perform pertaining to the reproduction for example: female pistil compose with ovaries, crowd, and the pistil, male, compose stately Arnu and Arnu spary <li data-bbox="948 1193 1522 1373">● The flower has both of reproduction likes to live the gender and the reproduction do not live the gender <li data-bbox="948 1395 1522 1697">● Plant reproduction for increase and the quality of the plant can be many ways by cultivating seed, rooting a cutting, branch castration, graft, inserting top and grow tissue

Grade	Indicator	Learning Contents
	<p>P5/3 Explain life cycles of some kinds of angiosperms.</p> <p>P5/4 Explain animal reproduction and propagation.</p> <p>P5/5 Explain life cycles of some kinds of animals and apply acquired knowledge for useful purposes.</p>	<ul style="list-style-type: none"> ● The flowerer when grow up with full speed ahead. It will be blossom then have breed become a seed which can grow etc. new plant circulates to the cycle ● Animal has reproduction to live the gender and the reproduction live without the gender ● The animal breeding by choose the way the breed and artificial on insemination that make a human has animal with the quantity and the according that wanted ● Some kind animal such as butterfly, mosquitoes, frog when an egg will breed to thrive in formed young and the caterpillar grow up formed full of the age until can reproduce and also circulate the circulate in formed young and the cat ● A human leads the knowledge about life cycle of animal come to apply a lot in both of the agriculture, something in the industry and environment maintenance
6	<p>P6/1 Explain human growth from birth to adulthood.</p> <p>P6/2 Explain interrelated functioning of digestive, respiratory and</p>	<ul style="list-style-type: none"> ● A human has the progress and have the change of the body from the beginning is born until adult ● The system digests the food, perform digest the food to small-sized nutrient

Grade	Indicator	Learning Contents
	<p>circulatory systems of human beings.</p> <p>P6/3 Analyse nutrients and discuss body requirements for nutrients in proportions suitable to gender and age.</p>	<p>then absorbed log in the blood circulate, oxygen gas has from the system that will be breathe to make the nutrient born until the change becomes the energy then the body can apply for use</p> <p>For example of nutrient: protein, carbohydrate, fat, mineral, vitamin and water. There is the necessity builds for the body, a human has to receive the nutrient in the proportion that is appropriate in gender and age for the progress and living</p>

Strand 1: Living and Family

Standard Sc1.2 : Understanding of process and importance of genetic transmission; evolution of living things; biodiversity; application of biotechnology affecting humans and the environment; investigative process for seeking knowledge and scientific mind; communicating knowledge that could be applied for useful purposes

Grade	Indicator	Learning Contents
1	P1/1 Specify characteristics of living things in the local area, and categorise them by using external characteristics as criteria.	<ul style="list-style-type: none"> The living things in the locality has both of character that alike and different which can bring for separate by use the appearance for standard
2	P2/1 Explain benefits of plants and animals in the local area.	<ul style="list-style-type: none"> The plant and animal are valuable for a human in the sense of four requisites example: the food, residence, clothing and the medicine
3	P3/1 Discuss various characteristics of living things in the immediate environment.	<ul style="list-style-type: none"> Each kind of living things has different character

Grade	Indicator	Learning Contents
	<p>P3/2 Compare and specify similar characteristics of parents and children.</p> <p>P3/3 Explain that the similar characteristics of parents and children originate from genetic transmission, and apply the knowledge gained for useful purposes.</p>	<ul style="list-style-type: none"> ● Every kind of living things has the appearance that appears to resemble with parents of living kind of that things ● The appearance that resemble of parents and a child are relaying hereditary characteristic ● A human has led the knowledge to relaying, the hereditary characteristic comes to apply in
	<p>P3/4 Search for data and discuss kinds of extinct living things and kinds that exist in the present.</p>	<p>species development of the plant and animal</p> <ul style="list-style-type: none"> ● The living things that can not adjust oneself to suit with the environment that modifies can become finally extinct ● The living things that can adjust oneself to suit with the environment and modify to get can survive and maintain the next breed
4	-	-
5	<p>P5/1 Explore, compare and specify their own characteristics and those of their family members.</p> <p>P5/2 Explain genetic transmission of each generation of living things.</p>	<ul style="list-style-type: none"> ● The character of oneself will resemble with a person in family ● Relaying hereditary characteristic is relaying character some from an ancestor to descendants which character some is will like a father or be like mother or might have the character like grandfather and grandmother

Grade	Indicator	Learning Contents
	<p>P5/3 Distinguish between flowering and non-flowering plants.</p> <p>P5/4 Specify characteristics of monocellular and multicellular plants by using their external organs as criteria.</p> <p>P5/5 Categorise animals into groups by using external characteristics and some internal characteristics as criteria.</p>	<ul style="list-style-type: none"> ● The plant distributes to two kind is the flowerer and the non flowerer plant ● The flowerer distributes are the monocotyledon and dicotyledonous plant by observe from root, trunk and leaf ● Animal classification in the group by use the appearance and the character within that there are some standards can distribute to animal that have the backbone and the invertebrate

Strand 2: Life and the Environment

Standard Sc2.1: Understanding of local environment; relationship between the environment and living things; relationship between living things in the eco-system; investigative process for seeking knowledge and scientific mind; and communicating acquired knowledge that could be applied for useful purposes

Grade	Indicator	Learning Contents
1	-	-
2	-	-
3	P3/1 Explore the environment in the local area and explain the relationship between living things and the environment.	<ul style="list-style-type: none"> ● The environment means location with things around ourselves have both of the living things and the non-living thing, the living things has the relation and both of environment together with the non-living thing

4	-	-
5	-	-
6	<p>P6/1 Explore and discuss relationship of groups of living things in various habitats.</p> <p>P6/2 Explore relationship of living things in terms of food chain and food web.</p>	<ul style="list-style-type: none"> ● Living things group in the different habitat have something be related and have the relation with the habitat in the character of food place, the habitat lives, a place reproduces and a place treat for an infant ● The relation of the living things and the living things in a picture of food chain and food relationship in cause for relaying energy from the
	P6/3 Search for data and explain relationships between the lives of living things and the environment.	<p>producer to a consumer</p> <ul style="list-style-type: none"> ● Living thing residence in each habitat will has the structure that is appropriate for the living in that habitat and can adjust oneself to give the suit with the environment for seek the food and are alive survive

Strand 2: Life and the Environment

Standard Sc2.2: Appreciating the importance of natural resources; utilization of natural resources at local, national and global levels; and application of knowledge for management of natural resources and local environment on a sustainable basis

Grade	Indicator	Learning Contents
1	-	-
2	-	-

Grade	Indicator	Learning Contents
3	<p>P3/1 Explore natural resources and discuss utilization of local natural resources.</p> <p>P3/2 Specify utilization of natural resources conducive to creating local environmental problems.</p> <p>P3/3 Discuss and present ideas for economical and cost-effective utilization of natural resources and participate in the practice.</p>	<ul style="list-style-type: none"> ● Earth, stone, water, air, forest, wild animals and mineral are natural resources that are very significant ● A human uses natural resources in the locality for the advantage in living ● A human leads natural resources to use very much then it cause an affect on the environment in the locality ● A human must help each other to take care and know use, natural resources economize and there will be using for a long time
4	-	-
5	-	-
6	<p>P6/1 Search for data and discuss sources of natural resources in each local area beneficial to living.</p>	<ul style="list-style-type: none"> ● The different of natural resources in the each of locality is valuable for living of the living things
	<p>P6/2 Analyse effects of population increase on utilization of natural resources.</p> <p>P6/3 Discuss effects on living things from environmental change both due to nature and due to human beings.</p>	<ul style="list-style-type: none"> ● The grow up expansion of human population makes natural resources was used more and more also make natural resources decreases and the environment modify ● The disaster from the nature and behavior of a human made the environment modify also cause effect and make the plant and wild some kind animals become extinct

Grade	Indicator	Learning Contents
	<p>P6/4 Discuss guidelines for taking care of and preserving natural resources and the environment.</p> <p>P6/5 Participate in providing care and preservation of natural resources in the local area.</p>	<ul style="list-style-type: none"> ● Building conscious in the conservation, watch over the natural resources including. Increase the number to plant the tree for in rows the one way in the maintenance of natural resources and the environment ● Share and make the project for watch out to beware the quality of the environment in the locality with permanently

Strand 3: Substances and Properties of Substances

Standard Sc3.1: Understanding of properties of substances; relationship between properties of substances and structures and binding forces between particles; investigative process for seeking knowledge and scientific mind; and communicating acquired knowledge for useful purposes

Grade	Indicator	Learning Contents
1	<p>P1/1 Observe and specify apparent characteristics or properties of materials utilized for making toys or articles of everyday use.</p> <p>P1/2 Classify the materials utilized for making toys or articles of everyday use as well as specify the criteria for such classification.</p>	<ul style="list-style-type: none"> ● The inventory that use to do wares toy in the every day life might have the figure, color, size, surface alike hardness or different ● The character or the different property of the inventory that can apply the standard in inventory classification that use to do a toy and wares in the every day life
2	P2/1 Specify the kinds and compare properties of materials for making toys and articles of everyday use.	<ul style="list-style-type: none"> ● Toy, wares might make of the different inventory such as wood, iron, paper, plastic, rubber and tire which the inventory are different kind property

	P2/2 Choose appropriate and safe materials and articles for use in daily life.	<ul style="list-style-type: none"> ● The choose of inventory and the different thing for come to usable in the every day life also the suitability and safe, must consider from the property of the inventory that uses to do that thing
3	<p>P3/1 Classify the kinds and properties of materials that are components of toys and articles of everyday use.</p> <p>P3/2 Explain utilization of each kind of material for useful purposes.</p>	<ul style="list-style-type: none"> ● Toys and wares might participate to assemble in many part and might make of various kinds of thing which is different property ● Each kind of things have different property then can apply in differently
4	-	-
5	<p>P5/1 Experiment and explain properties of various kinds of materials concerning elasticity, hardness, toughness, heat conductivity and density.</p> <p>P5/2 Search for data and discuss application of materials in daily life.</p>	<ul style="list-style-type: none"> ● Flexibility, hardness, toughness, heat lead, electricity lead and the density in the different property of the inventory which the different kind of the inventory will have some different aspects property points ● In the every day life we bring the different inventory to come to use the consumer goods follows the property of that inventory
6	P6/1 Experiment and explain properties of solids, liquids and gases.	<ul style="list-style-type: none"> ● A matter might appear in solid position, liquid or gas three of position substance has some aspects alike property and have some different from aspects

	<p>P6/2 Categorise substances into groups by using their state or other student-prescribed criteria prescribed.</p> <p>P6/3 Experiment and explain separation of materials through sifting, precipitation, filtering, sublimation and evaporation.</p> <p>P6/4 Explore and categorise various substances used in daily life by using their properties and utilization for useful purposes as criteria.</p> <p>P6/5 Discuss selection of correct and safe application of each kind of substance.</p>	<ul style="list-style-type: none"> ● Classification matter might separate by use the position, electricity lead, heat lead or the other property that can be the standard ● In some kind of matter separation that mix and depart must use the different kind that be the suitable ways and appropriate which can be erode, precipitate, filtration, vaporizing, evaporate in order that depend on the property of a matter that is the compound in that mixture ● Classify a different of matter that use in everyday life follow the applying divide matter in flavors the food, food coloring, a clean matter an insecticide and the herbicide which each kind has the acid, - base in different ● Using different matter in everyday life, must choose use to give correct and follow the objective of the usability to safe the living things and the environment
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Strand 3: Substances and Properties of Substances

Standard Sc3.2 : Understanding of principles and nature of change in the state of substances; solution formation; reaction; investigative process for seeking knowledge and scientific mind; and communication of acquired knowledge that could be applied for useful purposes

Grade	Indicator	Learning Contents
1	-	-
2	-	-
3	<p>P3/1 Experiment and explain effects of change in objects when a force acts on them or upon heating and cooling.</p> <p>P3/2 Discuss benefits and detriments that may arise due to changes in the objects.</p>	<ul style="list-style-type: none">● When activation wildly do such as squeezing, twist, pound, bend, pull, including making it hot go up or make it cold down and make the inventory changes figure character or there has different property from the original● The change of the inventory might apply to the advantage or get dangerous
4	-	-
5	-	-
6	<p>P6/1 Experiment and explain properties of substances when they dissolve and change their state.</p> <p>P6/2 Analyse and explain the changes resulting in transition of substances to new substances with different properties.</p>	<ul style="list-style-type: none">● When a substance is changing solution or position each kind of substance still show the property of a original substance● The change of chemistry or chemical reaction occurrence made new substance happens and the property of a substance will modify from originally

Grade	Indicator	Learning Contents
	P6/3 Explain substance changes affecting living things and the environment.	<ul style="list-style-type: none"> ● The change of a substance both of change position dissolution and substance new occurrence made effect with the living things and the environment

Standard Sc4.1: Understanding of the nature of electromagnetic, gravitational and nuclear forces; investigative process of seeking knowledge and applying acquired knowledge for useful and ethical purposes

Grade	Indicator	Learning Contents
1	P1/2 Experiment and explain the act of pulling or pushing objects.	<ul style="list-style-type: none"> The pulling and push material power is the exerting efforts to the material which might make or does not make the material moves and modify the figure or doesn't modify the figure
2	<p>P2/1 Experiment and explain forces originating from a magnet.</p> <p>P2/2 Explain application of magnets for useful purposes.</p> <p>P2/3 Experiment and explain electrical forces resulting from rubbing some kinds of materials.</p>	<ul style="list-style-type: none"> A magnet has the gravity or push between it, round a magnet has the magnetic field can attract the material that are made of magnet substance A magnet is valuable in doing toy, wares and induce separate magnet substance can depart to other material When rub some kind material then let it close to so it can be attract or push, the power that happen called electricity power and that material will attract light material
3	P3/1 Experiment and explain effects of forces acting on objects.	<ul style="list-style-type: none"> The exerting efforts material to make the material modifies the movement by the material will

Grade	Indicator	Learning Contents
	P3/2 Experiment the falling of objects on the Earth's surface and explain the Earth's attractive forces for the objects.	<p>motionless move and the material that will be moving to move fast or move slow down or stop move or turn away</p> <ul style="list-style-type: none"> ● The material always falls to the Earth surface because of the gravitation with worldly gravity that effect with the material and this power is the weight of the material
4	-	-
5	<p>P5/1 Experiment and explain finding resultant force of two parallel forces acting on objects.</p> <p>P5/2 Experiment and explain air pressure.</p> <p>P5/3 Experiment and explain liquid pressure.</p>	<ul style="list-style-type: none"> ● The power of two power that does to build the material by bilateral power is in the straight equal and sum total of bilateral that power ● The air has the power that effected with the material, the power that the air effected perpendicular to build one area division we called air pressure ● Liquid has the power does the effect with the material everywhere and the liquid power does perpendicular to build one area division, we called the pressure of liquid

		which there is the relation with the depth
	P5/4 Experiment and explain buoyant forces of liquid, floating and sinking of objects.	<ul style="list-style-type: none"> Liquid has the power supports to make the material float or sink in liquid, sinking or the float of the material depends on the weight of the material and the support power of that liquid
6	-	-

Strand 4: Forces and Motion

Standard Sc4.2: Understanding of characteristics and various types of motion of natural objects; investigative process for seeking knowledge and scientific mind; and communication of acquired knowledge for useful purposes

Grade	Indicator	Learning Contents
1	-	-
2	-	-
3	-	-
4	-	-
5	P5/1 Experiment and explain frictional forces and apply the knowledge gained for useful purposes.	<ul style="list-style-type: none"> The friction is the resist power with the movement of the material, the friction is valuable such as in walking must live in the friction
6	-	-

Strand 5: Energy

Standard Sc5.1: Understanding of relationship between energy and life; energy transformation; interrelationship between substances and energy; effects of energy utilization on life and the environment; investigative process for seeking knowledge; and communication of acquired knowledge that could be applied for useful purposes

Grade	Indicator	Learning Contents
1	-	-
2	<p>P2/1 Experiment and explain that electricity is a form of energy.</p> <p>P2/2 Explore and cite examples of electric appliances at home that can transform electrical energy into other forms of energy.</p>	<ul style="list-style-type: none">● The electricity from electricity cell or battery can work so the electricity is the energy● The electric energy can become other energy which can check and get from electric indoor appliances such as electric fan a electric pot boiled rice
3	<p>P3/1 Identify natural energy sources utilized for producing electricity.</p> <p>P3/2 Explain the importance of electrical energy and propose economical and safe methods for utilizing electricity.</p>	<ul style="list-style-type: none">● Electricity production uses the energy from natural power resource which some place is the limit power resource such as oil, nature gas place some is the power resource where circulates such as water and wind <p>The electric energy is significant in every day life such as light source then we must sue the electricity economize such as turn off the light when we don't use and use the electricity safety such as choose use the different equipment that have the standard</p>

Grade	Indicator	Learning Contents
4	P4/6 Experiment and explain that white light comprises various coloured lights, and apply the knowledge gained for useful purposes.	<ul style="list-style-type: none"> ● White light change the prism into the spread the light in the different light apply and explain the natural phenomenon, such as color of the rainbow
5	<p>P5/1 Experiment and explain origin and propagation of sound.</p> <p>P5/2 Experiment and explain origin of high pitched and low-pitched sound.</p> <p>P5/3 Experiment and explain loud and soft sound.</p> <p>P5/4 Explore and discuss detrimental effects of listening to excessively loud sounds.</p>	<ul style="list-style-type: none"> ● The sound is born from the shake of sound source and sound move from sound source everywhere by the medium ● Shivering sound source with low frequency is born the low voice but if shake it with tall frequency, it will born the high sound ● Shivering sound source with many energy will cause the loud sound but shivering sound source with the a little energy is born the softly sound ● The loud sound is a lot of bad with the sense of hearing and the sound that cause the annoyance called that noise pollution
6	<p>P6/1 Experiment and explain connecting a simple electrical circuit.</p> <p>P6/2 Experiment and explain electrical conductors and insulators.</p>	<ul style="list-style-type: none"> ● Easily electric circuit composes with electricity source, electrical equipment ● The inventory that the electric current can change to conductor the electricity if the electric current can't change is electric electricity insulator ●

Grade	Indicator	Learning Contents
	<p>P6/3 Experiment and explain a series connection of cells, and apply the knowledge gained for useful purposes.</p> <p>P6/4 Experiment and explain connection of bulbs in both series and parallel circuits, and apply the knowledge gained for useful purposes.</p> <p>P6/5 Experiment and explain origin of a magnetic field produced when electric current is present in a wire, and apply the knowledge gained for useful purposes.</p>	<ul style="list-style-type: none"> ● Many electric cell arrange within cell by the anode of one electricity cell the cathode again the other tow cell in serially make it have the electric current changes to the electrical equipment in the circuit increases ● Cell electricity tow serially can apply the advantage in the every day life such as the cell electricity tow in a flashlight ● Light bulb tow serially will have electric quantity same current changes light by each tube bulb ● Light bulb tow in parallel and the electric current will separate change to each tube bulb light can apply the advantage such as many indoor tows light bulb ● An electric line that have the electric current will change to the magnetic field round an electric line and can apply the advantage such as doing electro-magnet

Strand 6: Change Processes of the Earth

Standard Sc6.1: Understanding of various processes on the Earth's surface and inside the Earth; relationship between various processes causing changes in climate, topography and form of the Earth; investigative process for seeking knowledge and scientific mind; and communication of acquired knowledge that could be applied for useful purposes

Grade	Indicator	Learning Contents
1	P1/1 Explore, experiment and explain components and physical properties of soil in the local area.	<ul style="list-style-type: none">● The soil composed with stone leavings, humus, carcass by have the water and the air are putting in the opening of the soil● The soil in each the locality has physical different property in the sense of colors, soil meat, holding water and touch of the soil
2	P2/1 Explore and categorise soil by using physical properties as criteria, and apply the knowledge gained for useful purposes.	<ul style="list-style-type: none">● The earth separated to go out in this big kind for example combination of clay, the fat clay and the sandy soil follow different character in the sense of a color, soil meat, holding water and touch of the earth which apply the advantage has different follow the property of the soil
3	P3/1 Explore and explain physical properties of water from sources in the local area, and apply the knowledge gained for useful purposes.	<ul style="list-style-type: none">● The water can meet though liquid, solid and gas, the water can dissolve something substance, the water modifies the figure follow the utensil

Grade	Indicator	Learning Contents
		that packs and maintain one's position in horizontal
	<p>P3/2 Search for data and discuss the components of air and the importance of air.</p> <p>P3/3 Experiment and explain the motion of air resulting from differences in temperature.</p>	<ul style="list-style-type: none"> ● The quality of the water considered from color, smell, clear clarity of the water ● The water is natural resources that has the necessity for life both of consuming, consume then must use economize ● The air composed with nitrogen gas, oxygen, carbon dioxide gas and the other gas, the steam and dust ● The air is significant for the living every kind living things must use the air in the inhalation and the air still is valuable in the sense other more ● The air will move from the area where has low temperature and goes to still in the area where has tall temperature more by the air that move in horizontal its cause the wind
4	P4/1 Explore and explain soil formation.	<ul style="list-style-type: none"> ● The soil is born from a stone that was erode mix with the humus and carcass

Grade	Indicator	Learning Contents
	P4/2 Specify kinds and properties of soil used for growing plants in the local area.	<ul style="list-style-type: none"> ● The soil participates to assemble of stone leavings, organic matter, water and the air in different proportion cause various kinds soil each kind plant grows up well in different of it thus growing plant then should choose to use soils are appropriate
5	<p>P5/1 Explore, experiment and explain formation of clouds, mist, dew, rain and hail.</p> <p>P5/2 Experiment and explain formation of the water cycle.</p> <p>P5/3 Design and make simple instruments for measuring</p>	<ul style="list-style-type: none"> ● The steam in the air that condenses to tiny steam, cause of the fog and steam tiny could, the center are the drop will cause the dew and the rain ● The drop have become ice already and was have fan storm whirls in high-level until cloud crystallizes large-sized ice has gone up then agree to come to cause the hall ● Spring tide cycle is from the circulation continuously between area skin of world water and the water in the atmosphere ● Temperature, moistness, air pressure there is the change

Grade	Indicator	Learning Contents
	<p>temperature, humidity and air pressure.</p> <p>P5/4 Experiment and explain formation of wind, and apply the knowledge gained for useful purposes.</p>	<p>which can check by use easily tool</p> <p>Wind occurrence is born from the movement in the air follow level ground line, area air that have high temperature, the air mass will expand to have no obligation tall go up, air area part that have low temperature, the air mass will sink down and move to instead of it</p> <p>The energy from the wind can apply the advantage a lot of the sense in electric current production and doing the wind mill</p>
6	<p>P6/1 Explain and classify rocks by using their characteristics and properties as criteria, and apply the knowledge gained for useful purposes.</p> <p>P6/2 Explore and explain changes of rocks.</p>	<ul style="list-style-type: none"> ● Each kind of stone has different character, separate the character can observe to standard will be such as color, stone meat, hardness, density ● The geologist separates a stone followed occurrence character got three kind are igneous rock, sedimentary rock and the metamorphic rock ● Stone character and the property of different stone apply to the suit in both of

Grade	Indicator	Learning Contents
		<p>work in the sense of build industrial and other</p> <ul style="list-style-type: none"> ● The change of a stone in the nature by binge rode still, erosion, made a stone has small-sized down until the components of soil
	<p>P6/3 Search for data and explain geological disasters affecting human beings and the environment in the local area.</p>	<ul style="list-style-type: none"> ● A human should learn and behave safely from danger disaster on earth at might happen in the locality for example the flash flood rushes down, flood landslide, earthquake, Tsunami and other

Strand 7: Astronomy and Space

Standard Sc7.1: Understanding of evolution of the solar system, galaxies and the universe; interrelationships within the solar system and their effects on living things on Earth; investigative process for seeking knowledge and scientific mind; and communication of acquired knowledge for useful purposes

Grade	Indicator	Learning Contents
1	P1/1 Specify that in the sky there are the sun, the moon and stars.	<ul style="list-style-type: none">● In the sky have the sun, the moon and the star and we will see the sky has the character is shape half covers the land
2	P2/1 Search for and discuss the importance of the sun.	<ul style="list-style-type: none">● The sun is the important worldly power resource because give both of heat energy and light energy which help the living of the living things
3	P3/1 Observe and explain the rising and setting of the sun, the moon, causes of day and night and setting of directions.	<p>The world orbits oneself cause the phenomenon below</p> <ul style="list-style-type: none">● The phenomenon of goes up and set in the sun and the moon● Born the daytime and night by a side that turn to take the sunlight for the daytime and a side opposite that no take the sunlight on night● Fix the direction by observe from going up and the set of the sun, give a side to see the

Grade	Indicator	Learning Contents
		<p>sun becomes is the west when use the east in a main principle direction, let give on the</p>
		<p>right stay the east and left hand side</p> <p>stay western the front is the north</p> <p>and the back are the south</p>
4	P4/1 Make a model to explain characteristics of the solar system.	<ul style="list-style-type: none"> The solar system compose with the sun is the junction and have the slave running around are the eight planet, the draft planet, the little planet, comet and small-sized other material, meteor part or meteorite, fireball might be born from the comet, the little planet or other small-sized other material
5	P5/1 Observe and explain formation of directions (north, east, south, west) and phenomena of the rising and falling of stars by using star chart.	<ul style="list-style-type: none"> With regard to the world orbits oneself its cause direction specification by the world orbits oneself, anticlockwise from the west goes to still the east when observe from north pole then it would be appear to see the sun and all star rise

Grade	Indicator	Learning Contents
		<p>up in the east and set to the western</p> <ul style="list-style-type: none"> ● Star map helps to observe the position of star on the sky
6	P6/1 Make a model and explain formation of seasons, waxing and waning of the moon, solar eclipses and lunar eclipses, and apply the	<ul style="list-style-type: none"> ● With regards to the world runs around in the sun 1 time a year in the character that axis is slant with background vertical of flat and the
	knowledge gained for useful purposes.	<p>orbit. They make all area part, worldly take the energy from different sun cause to give the different season</p>

Strand 7: Astronomy and Space

Standard Sc7.2: Understanding of importance of space technology utilized for space exploration and natural resources for agriculture and communication; investigative process for seeking knowledge and scientific mind; and communication of acquired knowledge that could be ethically applied to life and the environment

Grade	Indicator	Learning Contents
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	P6/1 Search for data and discuss progress and benefits of space technology.	<ul style="list-style-type: none">● The progress of the rocket, artificial satellite and a spacecraft● The progresses of space technology get apply in data patrol of sky material. It can make us to learn about solar system both of in and outside. The solar system increases a lot of it and still are valuable in Technology development in the sense of natural resources patrol, communication, weather patrol, medical profession side and the other side

Strand 8: Nature of Science and Technology

Standard Sc8.1: Application of scientific process and scientific mind in investigation for seeking knowledge and problem-solving; knowing that most natural phenomena assume definite patterns that are explainable and verifiable within limitations of data and instruments available during particular periods of time; and understanding that science, technology, society and the environment are interrelated

Grade	Indicator	Learning Contents
1	P1/1 Pose questions about the matters to be studied as prescribed or in accord with their interests.	-
	P1/2 Plan for observation, exploration, verification, study and research by using their own ideas and those of their teachers.	-
	P1/3 Use materials and instruments for exploration and verification and record results using simple methods.	-
	P1/4 Arrange data obtained from exploration and verification into groups and present results.	-
	P1/5 Express opinions in the course of exploration and verification.	-
	P1/6 Make a record and explain results of the exploration and verification by drawing pictures or writing short texts.	-
	P1/7 Verbally present their work for others to understand.	-
2	P2/1 Pose questions about the matters to be studied as prescribed or in accord with their interests.	-

Grade	Indicator	Learning Contents
	<p>P2/2 Plan for observation, exploration, verification, study and research by using their own ideas and those of their teachers.</p> <p>P2/3 Use suitable materials, instruments and equipment for exploration and verification, and record data.</p> <p>P2/4 Arrange data into groups, and compare and present results.</p> <p>P2/5 Pose new questions arising from the results of exploration and verification.</p> <p>P2/6 Express group opinions that are compiled as a body of knowledge.</p> <p>P2/7 Make a record and clearly and directly explain results of exploration and verification by drawing pictures, diagrams or explanations.</p> <p>P2/8 Verbally presents their work so others can understand the processes and results.</p>	<p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>
3	<p>P3/1 Pose questions about the matters to be studied as prescribed and in accord with their interests.</p> <p>P3/2 Plan for observation, propose methods of exploration, verification, study and research by using their own ideas, those of groups, and form expectations of what is to be found from the exploration and verification.</p>	

Grade	Indicator	Learning Contents
	<p>P3/3 Select suitable materials, instruments and equipment for exploration and verification, and record data.</p> <p>P3/4 Arrange data into groups, compare it with expectations and present results.</p> <p>P3/5 Pose new questions arising from the results of exploration and verification.</p> <p>P3/6 Express opinions and collect data from groups, leading to knowledge creation.</p> <p>P3/7 Make a record and explain authentic results of the exploration and verification, using diagrams in the explanations.</p> <p>P3/8 Present and display work through verbal presentation and write to show the processes and results of their work for others to understand.</p>	
	<p>P4/1 Pose questions about the issues, matters or situations to be studied as prescribed and in accord with their interests.</p> <p>P4/2 Plan for observation and propose methods for exploration, verification, study and research, and form expectations of what is to be found from the exploration and verification.</p>	

Grade	Indicator	Learning Contents
	<p>P4/3 Select accurate and appropriate instruments for exploration and verification.</p> <p>P4/4 Make a record of quantitative data, and present conclusion of results.</p> <p>P4/5 Pose new questions for subsequent exploration and verification.</p> <p>P4/6 Express opinions and conclusions about what is being learned.</p> <p>P4/7 Make a record and clearly and directly explain results of exploration and verification.</p> <p>P4/8 Present and display work through verbal presentation or write to explain the processes and results of their work for others to understand.</p>	
5	<p>P5/1 Pose questions about the issues, matters or situations to be studied as prescribed and in accord with their interests.</p> <p>P5/2 Plan for observation and propose methods for exploration, verification, study and research, and form expectations of what is to be found from the exploration and verification.</p> <p>P5/3 Select accurate and appropriate instruments for exploration and verification in order to obtain reliable data.</p>	

Grade	Indicator	Learning Contents
	<p>P5/4 Make a record of quantitative and qualitative data, verify results with expectations, and present results and conclusions.</p> <p>P5/5 Pose new questions for subsequent exploration and verification.</p> <p>P5/6 Freely express opinions, explanations and conclusions about what is being learned.</p> <p>P5/7 Make a record and explain results of the exploration and verification based on the real situations and references.</p> <p>P5/8 Present and display their work through verbal or written presentations to explain the processes and results so that others can understand</p>	
6	<p>P6/1 Pose questions about the issues, matters or situations to be studied as prescribed and in accord with their interests.</p> <p>P6/2 Plan for observation and propose methods for exploration, verification, study and research, and form expectations of what is to be found from the exploration and verification.</p> <p>P6/3 Select accurate and appropriate instruments and methods for exploration and verification in order to obtain comprehensive and reliable data.</p>	

Grade	Indicator	Learning Contents
	<p>P6/4 Make a record of quantitative and qualitative data, analyse and verify results with expectations, and present results and conclusions.</p> <p>P6/5 Pose new questions for subsequent exploration and verification.</p>	

Course Description

Sc11101 Science

Group of learning science

Grade 1

80 periods

Compare differences between living things and non-living things. Observe and explain characteristics and functions of external structures of plants and animals. Observe and explain characteristics, functions and importance of external human organs as well as health care. Specify characteristics of living things in the local area, and categorise them by using external characteristics as criteria. Observe and specify apparent characteristics or properties of materials utilized for making toys or articles of everyday use. Classify the materials utilized for making toys or articles of everyday use as well as specify the criteria for such classification. Experiment and explain the act of pulling or pushing objects. Specify that in the sky there are the sun, the moon and stars. Pose questions about the matters to be studied as prescribed or in accord with their interests. Plan for observation, exploration, verification, study and research by using their own ideas and those of their teachers. Use materials and instruments for exploration and verification and record results using simple methods. Arrange data obtained from exploration and verification into groups and present results. Express opinions in the course of exploration and verification. Make a record and explain results of the exploration and verification by drawing pictures or writing short texts. Verbally present their work for others to understand.

Indicator Code

Sc1.1 P1/1, P1/2, P1/3

Sc1.2 P1/1

Sc3.1 P1/1, P1/2

Sc4.1 P1/1

Sc6.1 P1/1

Sc7.1 P1/1

Sc8.1 P1/1, P1/2, P1/3, P1/4, P1/5, P1/6, P1/7

Total 16 indicators

Course Description

Sc12101 Science

Group of learning science

Grade 2

80 periods

Experiment and explain that water and light are essential factors for plant life. Explain that nutrients, water and air are essential factors for the life and growth of plants and animals, and apply acquired knowledge for useful purposes. Explore and explain abilities of plants and animals to respond to light, temperature and touch. Explore and explain the ability of the human body to respond to light, temperature and touch. Explain the factors essential for the life and growth of human beings. Explain benefits of plants and animals in the local area. Specify the kinds and compare properties of materials for making toys and articles of everyday use. Choose appropriate and safe materials and articles for use in daily life. Experiment and explain forces originating from a magnet. Explain application of magnets for useful purposes. Experiment and explain electrical forces resulting from rubbing some kinds of materials.

Experiment and explain that electricity is a form of energy. Explore and cite examples of electric appliances at home that can transform electrical energy into other forms of energy. Explore and categorise soil by using physical properties as criteria, and apply the knowledge gained for useful purposes. Search for and discuss the importance of the sun. Pose questions about the matters to be studied as prescribed or in accord with their interests. Plan for observation, exploration, verification, study and research by using their own ideas and those of their teachers. Use suitable materials, instruments and equipment for exploration and verification, and record data. Arrange data into groups, and compare and present results. Pose new questions arising from the results of exploration and verification. Express group opinions that are compiled as a body of knowledge. Make a record and clearly and directly explain results of exploration and verification by drawing pictures, diagrams or explanations. Verbally presents their work so others can understand the processes and results.

Indicator Code

Sc1.1 P2/1, P2/2, P2/3, P2/4, P2/5

Sc1.2 P2/1

Sc3.1 P2/1, P2/2

Sc4.1 P2/1, P2/2, P2/3

Sc5.1 P2/1, P2/2

Sc6.1 P2/1

Sc7.1 P2/1

Sc8.1 P2/1, P2/2, P2/3, P2/4, P2/5, P2/6, P2/7, P2/8

Total 23 indicators

Course Description

Sc13101 Science

Group of learning science

Grade 3

80 periods

Discuss various characteristics of living things in the immediate environment. Compare and specify similar characteristics of parents and children. Explain that the similar characteristics of parents and children originate from genetic transmission, and apply the knowledge gained for useful purposes. Search for data and discuss kinds of extinct living things and kinds that exist in the present. Explore the environment in the local area and explain the relationship between living things and the environment. Explore natural resources and discuss utilization of local natural resources. Specify utilization of natural resources conducive to creating local environmental problems. Discuss and present ideas for economical and cost-effective utilization of natural resources and participate in the practice. Classify the kinds and properties of materials that are components of toys and articles of everyday use. Explain utilization of each kind of material for useful purposes. Experiment and explain effects of change in objects when a force acts on them or upon heating and cooling. Discuss benefits and detriments that may arise due to changes in the objects. Experiment and explain effects of forces acting on objects. Experiment the falling of objects on the Earth's surface and explain the Earth's attractive forces for the objects. Identify natural energy sources utilized for producing electricity. Explain the importance of electrical energy and propose economical and safe methods for utilizing electricity. Explore and explain physical properties of water from sources in the local area, and apply the knowledge gained for useful purposes. Search for data and discuss the components of air and the importance of air. Experiment and explain the motion of air resulting from differences in temperature. Observe and explain the rising and setting of the sun, the moon, causes of day and night and setting of directions. Pose questions about the matters to be studied as prescribed and in accord with their interests. Plan for observation, propose methods of exploration, verification, study and research by using their own ideas, those of groups, and form expectations of what is to be found from the exploration and verification. Select suitable materials, instruments and equipment for exploration and verification, and record data. Arrange data into groups, compare it with expectations and present results. Pose new questions arising from the results of exploration and verification. Express opinions and collect data from groups, leading to knowledge creation. Make a record and explain authentic results of the exploration and verification, using diagrams in the explanations. Present and display work through verbal presentation and write to show the processes and results of their work for others to understand.

Indicator Code

Sc1.2 P3/1, P3/2, P3/3, P3/4

Sc2.1 P3/1

Sc2.2 P3/1, P3/2, P3/3

Sc3.1 P3/1, P3/2

Sc3.2 P3/1, P3/2

Sc4.1 P3/1, P3/2

Sc5.1 P3/1, P3/2

Sc6.1 P3/1, P3/2, P3/3

Sc7.1 P3/1

Sc8.1 P3/1, P3/2, P3/3, P3/4, P3/5, P3/6, P3/7, P3/8

Total 28 indicators

Course Description

Sc14101 Science

Group of learning science

Grade 4

80 periods

Experiment and explain functions of bundles and stomas of plants. Explain that water, carbon dioxide, light and chlorophyll are some of the factors essential for growth and photosynthesis. Experiment and explain responses of plants to light, sound and touch. Explain behaviour of animals responding to light, temperature and touch, and apply acquired knowledge for useful purposes. Experiment and explain motion of light from its source. Experiment and explain reflection of light on objects. Experiment and classify objects based on visual characteristics from sources of light. Experiment and explain refraction of light that passes through two kinds of transparent mediums. Experiment and explain transformation of light into electrical energy, and apply the knowledge gained for useful purposes. Experiment and explain that white light comprises various coloured lights, and apply the knowledge gained for useful purposes. Explore and explain soil formation. Specify kinds and properties of soil used for growing plants in the local area. Make a model to explain characteristics of the solar system. Pose questions about the issues, matters or situations to be studied as prescribed and in accord with their interests. Plan for observation and propose methods for exploration, verification, study and research, and form expectations of what is to be found from the exploration and verification. Select accurate and appropriate instruments for exploration and verification. Make a record of quantitative data, and present conclusion of results. Pose new questions for subsequent exploration and verification. Express opinions and conclusions about what is being learned. Make a record and clearly and directly explain results of exploration and verification. Present and display work through verbal presentation or write to explain the processes and results of their work for others to understand.

Indicator Code

Sc1.1 P4/1, P4/2, P4/3, P4/4

Sc5.1 P4/1, P4/2, P4/3, P4/4, P4/5, P4/6

Sc6.1 P4/1, P4/2

Sc7.1 P4/1

Sc8.1 P4/1, P4/2, P4/3, P4/4, P4/5, P4/6, P4/7, P4/8

Total 21 indicators

Course Description

Sc15101 Science

Group of learning science

Grade 5

80 periods

Observe and specify components of flowers and structures involved in reproduction of angiosperms. Explain reproduction of flowers, plants, plant propagation, and apply acquired knowledge for useful purposes. Explain life cycles of some kinds of angiosperms. Explain animal reproduction and propagation. Explain life cycles of some kinds of animals and apply acquired knowledge for useful purposes. Explore, compare and specify their own characteristics and those of their family members. Explain genetic transmission of each generation of living things. Distinguish between flowering and non-flowering plants. Specify characteristics of monocellular and multicellular plants by using their external organs as criteria. Categorise animals into groups by using external characteristics and some internal characteristics as criteria. Experiment and explain properties of various kinds of materials concerning elasticity, hardness, toughness, heat conductivity and density. Search for data and discuss application of materials in daily life. Experiment and explain finding resultant force of two parallel forces acting on objects. Experiment and explain air pressure. Experiment and explain liquid pressure. Experiment and explain buoyant forces of liquid, floating and sinking of objects. Experiment and explain frictional forces and apply the knowledge gained for useful purposes. P5/1 Experiment and explain origin and propagation of sound. Experiment and explain origin of high pitched and low-pitched sound. Experiment and explain loud and soft sound. Explore and discuss detrimental effects of listening to excessively loud sounds. Explore, experiment and explain formation of clouds, mist, dew, rain and hail. Experiment and explain formation of the water cycle. Design and make simple instruments for measuring temperature, humidity and air pressure. Experiment and explain formation of wind, and apply the knowledge gained for useful purposes. Observe and explain formation of directions (north, east, south, west) and phenomena of the rising and falling of stars by using star chart. Pose questions about the issues, matters or situations to be studied as prescribed and in accord with their interests. Plan for observation and propose methods for exploration, verification, study and research, and form expectations of what is to be found from the exploration and verification. Select accurate and appropriate instruments for exploration and verification in order to obtain reliable data. Make a record of quantitative and qualitative data, verify results with expectations, and present results and conclusions. Pose new questions for subsequent exploration and verification. Freely express opinions, explanations and conclusions about what is being learned. Make a record and explain results of the exploration and verification based on the real situations and references. Present and display their work through verbal or written presentations to explain the processes and results so that others can understand.

Indicator	Code
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Sc1.1	P5/1, P5/2, P5/3, P5/4,P5/4, P5/5
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Sc1.2	P5/1, P5/2, P5/3, P5/4,P5/4, P5/5
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Sc3.1	P5/1, P5/2
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Sc4.1	P5/1, P5/2, P5/3, P5/4
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Sc4.2	P5/1
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Sc5.1	P5/1, P5/2, P5/3, P5/4
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Sc6.1	P5/1, P5/2, P5/3, P5/4
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Sc7.1	P5/1
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Sc8.1	P5/1, P5/2, P5/3, P5/4, P5/5, P5/6, P5/7, P5/8
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Total	36 indicators
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Course Description

Sc16101 Science

Group of learning science

Grade 6

80 periods

Explain human growth from birth to adulthood. Explain interrelated functioning of digestive, respiratory and circulatory systems of human beings. Analyse nutrients and discuss body requirements for nutrients in proportions suitable to gender and age. Explore and discuss relationship of groups of living things in various habitats. Explore relationship of living things in terms of food chain and food web. Search for data and explain relationships between the lives of living things and the environment. Search for data and discuss sources of natural resources in each local area beneficial to living. Analyse effects of population increase on utilization of natural resources. Discuss effects on living things from environmental change both due to nature and due to human beings. Discuss guidelines for taking care of and preserving natural resources and the environment. Participate in providing care and preservation of natural resources in the local area. Experiment and explain properties of solids, liquids and gases. Categorise substances into groups by using their state or other student-prescribed criteria prescribed. Experiment and explain separation of materials through sifting, precipitation, filtering, sublimation and evaporation. Explore and categorise various substances used in daily life by using their properties and utilization for useful purposes as criteria. Discuss selection of correct and safe application of each kind of substance. Experiment and explain properties of substances when they dissolve and change their state. Analyse and explain the changes resulting in transition of substances to new substances with different properties. Explain substance changes affecting living things and the environment. Experiment and explain connecting a simple electrical circuit. Experiment and explain electrical conductors and insulators. Experiment and explain a series connection of cells, and apply the knowledge gained for useful purposes. Experiment and explain connection of bulbs in both series and parallel circuits, and apply the knowledge gained for useful purposes. Experiment and explain origin of a magnetic field produced when electric current is present in a wire, and apply the knowledge gained for useful purposes. Explain and classify rocks by using their characteristics and properties as criteria, and apply the knowledge gained for useful purposes. Explore and explain changes of rocks. Search for data and explain geological disasters affecting human beings and the environment in the local area. Make a model and explain formation of seasons, waxing and waning of the moon, solar eclipses and lunar eclipses, and apply the knowledge gained for useful purposes. Search for data and discuss progress and benefits of space technology. Pose questions about the issues, matters or situations to be studied as prescribed and in accord with their interests. Plan for observation and propose methods for exploration, verification, study and research, and form expectations of what is to be found from the exploration and verification. Select accurate

and appropriate instruments and methods for exploration and verification in order to obtain comprehensive and reliable data. Make a record of quantitative and qualitative data, analyse and verify results with expectations, and present results and conclusions. Pose new questions for subsequent exploration and verification. Freely express opinions, provide explanations, reach agreements, and draw conclusions about what is being learned. Make a record and explain results of the exploration and verification based on the real situations, with rationality and eye-witnesses for reference. Present and display their work through verbal or written presentations to explain the processes and results so that others can understand.

Indicator Code

Sc1.1 P6/1, P6/2, P6/3

Sc2.1 P6/1, P6/2, P6/3

Sc2.2 P6/1, P6/2, P6/3, P6/4, P6/5

Sc3.1 P6/1, P6/2, P6/3, P6/4, P6/5

Sc3.2 P6/1, P6/2, P6/3

Sc5.1 P6/1, P6/2, P6/3, P6/4, P6/5

Sc6.1 P6/1, P6/2, P6/3

Sc7.1 P6/1

Sc7.2 P6/1

Sc8.1 P6/1, P6/2, P6/3, P6/4, P6/5, P6/6, P6/7, P6/8

Total 37 indicators

Learning Area of Mathematics

Why it is necessary to learn mathematics

Mathematics is highly important to development of the human mind. It enables a person to acquire skills in creativity, logic and systematic and methodical thinking, and allows one to carefully and thoroughly analyse various problems or situations, anticipate, plan, make decisions, solve problems and accurately and appropriately apply mathematics in daily life. Mathematics serves as a tool for learning science, technology and other disciplines. It is therefore useful to one's life, enhances quality of life and enables a person to live in harmony with others.

What is learned in mathematics

The learning area for mathematics is aimed at enabling all children and youths to continuously learn this subject in accord with their potentiality. The contents prescribed for all learners are as follow:

- **Numbers and Operations:** numerical concepts and sense of perception; real number system; properties of real numbers; operation of numbers; ratio; percentage; problem-solving involving numbers; and application of numbers in real life
- **Measurement:** length; distance; weight; area; volume and capacity; money and time; measuring units; estimation for measurement; trigonometric ratio; problem-solving regarding measurement; and application of measurement in various situations
- **Geometry:** geometric figures and properties of one-dimensional geometric figures; visualization of geometric models; geometric theories; and geometric transformation through translation, reflection and rotation
- **Algebra:** pattern; relationship; function; sets and their operations; reasoning; expression; equation; equation system; inequality; graph; arithmetic order; geometric order; arithmetic series; and geometric series
- **Data Analysis and Probability:** determining an issue; writing questions; determining methods of study; study; data collection, systematization and presentation; central tendency and data distribution; data analysis and interpretation; opinion polling; probability; application of

statistical knowledge and probability; application of probability in explaining various situations as well as for facilitating decision-making in real life

- **Mathematical Skills and Processes:** problem-solving through diverse methods; reasoning; communication; communication and presentation of mathematical concepts; linking mathematics with other disciplines; and attaining ability for creative thinking

Learners' Quality

Grade 3 graduates

- Have numerical knowledge, understanding and sense of cardinal numbers not more than 100,000, and zero as well as operation of numbers; can solve problems involving addition, subtraction, multiplication and division; and are aware of validity of the answers reached
- Have knowledge and understanding of length, distance, weight, volume, capacity, time and money; can measure correctly and appropriately; and can apply knowledge of measurement for solving problems faced in various situations
- Have knowledge and understanding of triangle, quadrilateral, circle, ellipse, cuboids, sphere and cylinder as well as point, line segment and angle
- Have knowledge and understanding of pattern and can explain relationship
- Can collect and analyse relevant data and information about themselves and their surroundings in their daily lives; can avail of pictograms and bar charts for discussing various issues
- Can apply diverse methods for problem-solving; can avail of mathematical knowledge, skills and processes appropriately for solving problems faced in various situations; can suitably present reasoning for decision-making and appropriately present the conclusion reached; can use mathematical language and symbols for communication, as well as accurate and appropriate communication and presentation of mathematical concepts; can link various bodies of mathematical knowledge; can link mathematics with other disciplines; and have attained ability for creative thinking

Grade 6 graduates

- Have numerical knowledge, understanding, and sense of cardinal numbers and zero, fractions, decimals of not more than three places, percentages, operation of numbers and

properties of numbers; can solve problems involving addition, subtraction multiplication and division of cardinal numbers, fractions, decimals of not more than three places and percentages; are aware of validity of the answers reached; and can find estimates of cardinal numbers and decimals of not more than three places

- Have knowledge and understanding of length, distance, weight, area, volume, capacity, time, money, direction, diagrams and size of angles; can measure correctly and appropriately; and can apply knowledge of measurement for solving problems faced in various situations

- Have knowledge and understanding of characteristics and properties of triangles, squares, circles, cuboids, cylinders, cones, prisms, pyramids angles and parallel lines

- Have knowledge and understanding of patterns and can explain their relationships and solve problems involving patterns; can analyse situations or problems as well as write linear equations with an unknown that can be solved

- Can collect data and information and discuss various issues from pictograms, bar charts, comparative bar charts, pie charts, line graphs and tables that are availed of for presentation; and can apply knowledge of basic probability in projecting various possible situations

- Can apply diverse methods for problem-solving, availing of mathematical and technological knowledge, skills, and processes appropriately to solve problems faced in various situations; can suitably provide reasoning for decision-making and appropriately present the conclusions reached; can use mathematical language and symbols for communication as well as accurate and appropriate communication and presentation of mathematical concepts; can link various bodies of mathematical knowledge and can link mathematical knowledge with other disciplines; and have attained ability for creative thinking

Standard of Learning and Yearly Indicator for each stage

Strand 1: Numbers and Operations

Standard M 1.1: Understanding diverse methods of presenting numbers and their application in real life

Grade	Indicator	Learning Contents
1	<p>P1/1 Write and read Hindu-Arabic and Thai numerals showing quantity of objects or cardinal numbers not exceeding 100, and 0.</p> <p>P1/2 Compare and arrange sequence of cardinal numbers not exceeding 100, and 0.</p>	<ul style="list-style-type: none"> ● Use the value from counting ● Writing Hindu Arabic number and Thai number to shown the value. ● Read Hindu Arabic number and Thai number ● Increase counting by one and two ● Decrease counting by one ● Main and Value of digit in number ● Writing value number in disperse ● Compare with value and use signs = ≠ > < ● Order value at least five numbers

Strand 1: Numbers and Operations

Standard M 1.2: Understanding results of operations of numbers, relationships of operations, and application of operations for problem-solving

Grade	Indicator	Learning Contents
1	<p>P1/1 Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 100, and 0, as well as be aware of validity of the answers.</p>	<ul style="list-style-type: none"> ● The meaning of addition and using of addition symbol ● The addition that is not include with carry number ● The meaning of minus and using of minus symbol ● The minus that is not disperse ● The addition and minus with carrying number

Grade	Indicator	Learning Contents
	P1/2 Analyse and find answers to problems and mix-problems of cardinal numbers not exceeding 100, and 0, as well as aware of validity of the answers.	<ul style="list-style-type: none"> ● The question of addition and minus ● The question of addition and minus with carrying number ● Create question of addition and minus

Strand 1: Numbers and Operations

Standard M 1.3: Use of estimation in calculation and problem-solving

Grade	Indicator	Learning Contents
1	-	-

Strand 1: Numbers and Operations

Standard M1.4: Understanding of numerical system and application of numerical properties

Grade	Indicator	Learning Contents
1	-	-

Strand 2: Measurement

Standard M 2.1: Understanding the basics of measurement; ability to measure and estimate the size of objects to be measured

Grade	Indicator	Learning Contents
1	P1/1 Tell length, weight, volume, and capacity by using non-standard units of measure.	<ul style="list-style-type: none"> ● The comparison of length (tall more, short more, long more, short more, long be equal, tall be equal) ● Length measurement by use the division that is not Indicator division ● Weight comparison (heavy more, light more, heavy be equal) ● The weight measurement by use the division that is not Indicator division

Grade	Indicator	Learning Contents
	P1/2 Tell period of time, number and names of days of the week.	<ul style="list-style-type: none"> ● The comparison of capacity and the capacity limit (more than, less than, be equal, contain more than, contain less, contain be equal) ● Measuring by use the division that is not Indicator division ● Time on each day (daytime, night, morning, late, midday, afternoon, evening) ● The amount of day and the name of day in a week

Strand 2: Measurement

Standard M2.2: Solving measurement problems

Grade	Indicator	Learning Contents
1	-	-

Strand 3: Geometry

Standard M 3.1: Ability to explain and analyse two-dimensional and three-dimensional geometric figures

Grade	Indicator	Learning Contents
1	P 1/1 Distinguish triangles, quadrilaterals, circles and ellipses.	<ul style="list-style-type: none"> ● A triangle picture, a square picture, circle picture, oval picture

Strand 3: Geometry

Standard M3.2: Ability for visualization, spatial reasoning and application of geometric models for problem-solving

Grade	Indicator	Learning Contents
1	-	-

Strand 4: Algebra

Standard M 4.1: Understanding and ability to analyse pattern, relation and function

Grade	Indicator	Learning Contents
1	<p>P 1/1 Tell the numbers and relations in patterns of numbers that increases by 1s and 2s, and decreases by 1s.</p> <p>P 1/2 Identify the forms and relations in patterns in which forms are related in one of the following respects: shape, size or colour.</p>	<ul style="list-style-type: none">● A form of the amount that increases by 2 and 1 each● A form of the amount that down by 1 each● A form of a picture that has the figure with the size or a color that is related either or else, such as

Strand 4: Algebra

Standard M4.2: Ability to apply algebraic expressions, equations, inequalities, graphs and other mathematical models to represent various situations, as well as interpretation and application for problem-solving

Grade	Indicator	Learning Contents
1	-	-

Strand 5: Data Analysis and Probability

Standard M5.1: Understanding and ability to apply statistical methodology for data analysis

Grade	Indicator	Learning Contents
1	-	-

Strand 5: Data Analysis and Probability

Standard M 5.2: Application of statistical methodology and knowledge of probability for valid estimation

Grade	Indicator	Learning Contents
1	-	-

Strand 6: Mathematical Skills and Processes

Standard M6.1: Capacity for problem-solving, reasoning, and communication; communication and presentation of mathematical concepts; linking various bodies of mathematical knowledge and linking mathematics with other disciplines; and attaining ability for creative thinking

Grade	Indicator	Learning Contents
1	<p>P 1/1 Apply diverse methods for problem-solving.</p> <p>P 1/2 Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations.</p> <p>P 1/3 Suitably provide reasoning for decision-making and appropriately present the conclusions reached.</p> <p>P 1/4 Accurately use mathematical language and symbols for communication of concepts and presentation.</p> <p>P 1/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines.</p> <p>P 1/6 Attain ability for creative thinking.</p>	

Course Description

M.11101 Mathematics

Group of learning mathematics

Grade 1

200 hours

Write and read Hindu-Arabic and Thai numerals showing quantity of objects or cardinal numbers not exceeding 100, and 0. Compare and arrange sequence of cardinal numbers not exceeding 100, and 0.

Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 100, and 0, as well as be aware of validity of the answers. Analyse and find answers to problems and mix-problems of cardinal numbers not exceeding 100, and 0, as well as aware of validity of the answers. Tell length, weight, volume, and capacity by using non-standard units of measure. Tell period of time, number and names of days of the week. Distinguish triangles, quadrilaterals, circles and ellipses. Tell the numbers and relations in patterns of numbers that increases by 1s and 2s, and decreases by 1s. Identify the forms and relations in patterns in which forms are related in one of the following respects: shape, size or colour. Apply diverse methods for problem-solving. Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations. Suitably provide reasoning for decision-making and appropriately present the conclusions reached. Accurately use mathematical language and symbols for communication of concepts and presentation. Link various bodies of mathematical knowledge, and link mathematics with other disciplines. Attain ability for creative thinking.

Indicator Code

M 1.1 P.1/1, P.1/2

M 1.2 P.1/1, P.1/2

M 2.1 P.1/1, P.1/2

M 3.1 P.1/1

M 4.1 P.1/1 P.1/2

M 6.1 P.1/1, P.1/2, P.1/3, P.1/4, P.1/5, P.1/6

Total 15 indicators

Standard of Learning and Yearly Indicator for each stage

Strand 1: Numbers and Operations

Standard M 1.1: Understanding diverse methods of presenting numbers and their application in real life

Grade	Indicator	Learning Contents
2	<p>P 2/1 Write and read Hindu-Arabic and Thai numerals and written forms showing quantity of objects or cardinal numbers not exceeding 1,000, and 0.</p> <p>P 2/2 Compare and arrange sequence of cardinal numbers not exceeding 1,000, and 0.</p>	<ul style="list-style-type: none"> ● Writing Hindu Arabic number and Thai number to shown the value ● Read Hindu Arabic number and Thai number ● Increase counting by 5, 10 and 100 ● Decrease counting by 2, 10 and 100 ● Odd number, even number ● Main and Odd number and use 0 for stick the main value ● Writing value number in disperse ● Compare with value and use signs = \neq $>$ $<$ ● Order value at least five numbers

Strand 1: Numbers and Operations

Standard M 1.2: Understanding results of operations of numbers, relationships of operations, and application of operations for problem-solving

Grade	Indicator	Learning Contents
2	P 2/1 Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.	<ul style="list-style-type: none"> ● The addition and minus ● The meaning of multiply and using \times symbol ● The multiply one point and multiply not over two points ● The meaning of divide and using \div symbol

Grade	Indicator	Learning Contents
		<ul style="list-style-type: none"> • The meaning of divide and using \div symbol • The divide and one point divisor Addition, minus, multiply and mixed divide
	P 2/2 Analyse and find answers to problems and mix-problems of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers.	<ul style="list-style-type: none"> • Question of addition, minus, multiply, divide • Question of addition, minus, multiply and mixed divide • Create question of addition, minus, multiply, divide

Strand 1: Numbers and Operations

Standard M 1.3: Use of estimation in calculation and problem-solving

Grade	Indicator	Learning Contents
2	-	-

Strand 1: Numbers and Operations

Standard M1.4: Understanding of numerical system and application of numerical properties

Grade	Indicator	Learning Contents
2	-	-

Strand 2: Measurement

Standard M 2.1: Understanding the basics of measurement; ability to measure and estimate the size of objects to be measured

Grade	Indicator	Learning Contents
2	P 2/1 Tell length in metres and centimetres, and compare length by using the same unit.	<ul style="list-style-type: none"> • Length measurement (meter centimeter) • Length comparison (same division)

Grade	Indicator	Learning Contents
	<p>P 2/2 Tell weight in kilogram and gram and compare weight by using the same unit.</p> <p>P 2/3 Tell volume and capacity in litres, and compare volume and capacity.</p> <p>P 2/4 Tell total amount of money from coins and bank notes.</p> <p>P 2/5 Tell the time on a clock dial (period of 5 minutes).</p> <p>P 2/6 Tell the days, months and year from a calendar.</p>	<ul style="list-style-type: none"> ● Weight measurement (kilogram, scratch) ● Weight comparison (The same division) ● Measuring (The liter) ● Capacity comparison and the capacity (The liter) ● A kind of money with the value and coin money and the paper money ● The value comparison of coin money and the paper money ● Giving all amount of money information (baht, satang) ● Giving the time information in a clock with minute (5 period per minute) ● Reading calendar, month and the rank of the month

Strand 2: Measurement

Standard M2.2: Solving measurement problems

Grade	Indicator	Learning Contents
2	P 2/1 Solve problems involving measurement of length, weight, volume and money.	<ul style="list-style-type: none"> ● Problem in mathematics about length measurement (add, minus) ● Problem in mathematics about the weight measurement (add, minus) ● Problem in mathematics about measuring (add, minus, multiply by, divide by) ● Problem in mathematics about money (add, minus, the division is baht)

Strand 3: Geometry

Standard M 3.1: Ability to explain and analyse two-dimensional and three-dimensional geometric figures

Grade	Indicator	Learning Contents
2	<p>P 2/1 Identify two-dimensional geometric figures whether in the form of triangles, quadrilaterals, circles or ellipses.</p> <p>P 2/2 Identify three-dimensional figures whether in the form of cuboids, spheres or cylinders.</p> <p>P 2/3 Distinguish between rectangles and cuboids, and between circles and spheres.</p>	<ul style="list-style-type: none">● A triangle picture, a square picture, circle picture, oval picture● A square with right angle in shape, a sphere and a cylinder● Two geometry dimension picture and three geometry dimension picture

Strand 3: Geometry

Standard M3.2: Ability for visualization, spatial reasoning and application of geometric models for problem-solving

Grade	Indicator	Learning Contents
2	P 2/1 Draw two-dimensional geometric figures by using geometric models.	<ul style="list-style-type: none">● Writing Triangle, square picture, circle picture and oval picture by use like model of a picture

Strand 4: Algebra

Standard M 4.1: Understanding and ability to analyse pattern, relation and function

Grade	Indicator	Learning Contents
2	P 2/1 Tell the numbers and relations in patterns of numbers that increases by 5s, 10s and 100s , and decreases by 2s, 10s and 100s.	<ul style="list-style-type: none">● A form in a picture of the amount that increase by 5, 10 and 100● A form in a picture of the amount that is each down by 5, 10 and 100

Grade	Indicator	Learning Contents
	P 2/2 Identify the forms and relations in patterns in which forms are related in one of the following respects: shape, size or colour.	<ul style="list-style-type: none"> ● A form of a picture that has the figure, size or a color that is related either or else such as

Strand 4: Algebra

Standard M4.2: Ability to apply algebraic expressions, equations, inequalities, graphs and other mathematical models to represent various situations, as well as interpretation and application for problem-solving

Grade	Indicator	Learning Contents
2	-	-

Strand 5: Data Analysis and Probability

Standard M5.1: Understanding and ability to apply statistical methodology for data analysis

Grade	Indicator	Learning Contents
2	-	-

Strand 5: Data Analysis and Probability

Standard M 5.2: Application of statistical methodology and knowledge of probability for valid estimation

Grade	Indicator	Learning Contents
2	-	-

Strand 6: Mathematical Skills and Processes

Standard M6.1: Capacity for problem-solving, reasoning, and communication; communication and presentation of mathematical concepts; linking various bodies of mathematical knowledge and linking mathematics with other disciplines; and attaining ability for creative thinking

Grade	Indicator	Learning Contents
2	<p>P 2/1 Apply diverse methods for problem-solving.</p> <p>P 2/2 Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations.</p> <p>P 2/3 Suitably provide reasoning for decision-making and appropriately present the conclusions reached.</p> <p>P 2/4 Accurately use mathematical language and symbols for communication of concepts and presentation.</p> <p>P 2/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines.</p> <p>P 2/6 Attain ability for creative thinking.</p>	

Course Description

M.12101 Mathematics

Group of learning mathematics

Grade 2

200 hours

Write and read Hindu-Arabic and Thai numerals and written forms showing quantity of objects or cardinal numbers not exceeding 1,000, and 0. Compare and arrange sequence of cardinal numbers not exceeding 1,000, and 0. Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers. Analyse and find answers to problems and mix-problems of cardinal numbers not exceeding 1,000, and 0, as well as be aware of validity of the answers. Tell length in metres and centimetres, and compare length by using the same unit. Tell weight in kilogram and gram and compare weight by using the same unit. Tell volume and capacity in litres, and compare volume and capacity. Tell total amount of money from coins and bank notes. Tell the time on a clock dial (period of 5 minutes) Tell the days, months and year from a calendar. Solve problems involving measurement of length, weight, volume and money. Identify two-dimensional geometric figures whether in the form of triangles, quadrilaterals, circles or ellipses. Identify three-dimensional figures whether in the form of cuboids, spheres or cylinders. Distinguish between rectangles and cuboids, and between circles and spheres. Draw two-dimensional geometric figures by using geometric models. Tell the numbers and relations in patterns of numbers that increases by 5s, 10s and 100s , and decreases by 2s, 10s and 100s. Identify the forms and relations in patterns in which forms are related in one of the following respects: shape, size or colour. Apply diverse methods for problem-solving. Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations. Suitably provide reasoning for decision-making and appropriately present the conclusions reached. Accurately use mathematical language and symbols for communication of concepts and presentation. Link various bodies of mathematical knowledge, and link mathematics with other disciplines. Attain ability for creative thinking.

Indicator Code

M 1.1 P.2/1, P.2/2 M 1.2 P.2/1, P.2/2

M 2.1 P.2/1, P.2/2, P.2/3, P.2/4, P.2/5, P.2/6 M2.2 P.2/1

M 3.1 P.2/1, P.2/2, P.2/3 M 3.2 P.2/1

M 4.1 P.2/1 P.2/2 M 6.1 P.2/1, P.2/2, P.2/3, P.2/4, P.2/5, P.2/6

Total 17 indicators

Standard of Learning and Yearly Indicator for each stage

Strand 1: Numbers and Operations

Standard M 1.1: Understanding diverse methods of presenting numbers and their application in real life

Grade	Indicator	Learning Contents
3	<p>P 3/1 Write and read Hindu-Arabic and Thai numerals and written forms showing quantity of objects or cardinal numbers not exceeding 100,000 and 0.</p> <p>P 3/2 Compare and arrange sequence of cardinal numbers not exceeding 100,000 and 0.</p>	<ul style="list-style-type: none"> ● Writing Hindu Arabic number and Thai number to shown the value ● Read Hindu Arabic number and Thai number ● Increase counting by 3, 4, 25 and 50 ● Decrease counting by 3, 4, 5, 25 and 50 ● Main and Value of digit in number and use 0 for stick the main value ● Writing value number in disperse ● Compare with value and use sign = \neq $>$ $<$ ● Order value at least five numbers

Strand 1: Numbers and Operations

Standard M 1.2: Understanding results of operations of numbers, relationships of operations, and application of operations for problem-solving

Grade	Indicator	Learning Contents
3	P3/1 Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 100,000, and 0, as well as be aware of validity of the answers.	<ul style="list-style-type: none"> • Addition, minus • Multiply one point with number not over than four points • Multiply two points number with two points number • Divisor not over than four points and one point divide • Addition, minus, multiply, mixed divide •
	P3/2 Analyse and show method of finding answers to problems and mix-problems of cardinal numbers not exceeding 100,000, and 0, as well as be aware of validity of the answers.	<ul style="list-style-type: none"> • Addition question • Minus question • Multiply question • Divide question • Mixed addition, minus, multiply, divide question • Create question of mixed addition, minus, multiply, divide

Strand 1: Numbers and Operations

Standard M 1.3: Use of estimation in calculation and problem-solving

Grade	Indicator	Learning Contents
3	-	-

Strand 1: Numbers and Operations

Standard M1.4: Understanding of numerical system and application of numerical properties

Grade	Indicator	Learning Contents
3	-	-

Strand 2: Measurement

Standard M 2.1: Understanding the basics of measurement; ability to measure and estimate the size of objects to be measured

Grade	Indicator	Learning Contents
3	<p>P 3/1 Tell length in metres, centimetres and millimetres by using appropriate measuring tools, and compare length.</p> <p>P 3/2 Tell weight in kilogram and gram by using appropriate weighing machine, and compare weights.</p>	<ul style="list-style-type: none">● Length measurement (meter, centimeter, a millimeter)● Measuring instrument length filtration that is appropriate (meter stick, ruler, meter rope, meter box)● Length comparison● Length estimate (meter, centimeter)● Weight measurement (kilogram, gram, 100 gram)● Balance filtration that is appropriate (spring balance, the weighing apparatus, the two arm balance, the bob loads balance)● Weight comparison● Weight estimate (a kilogram)

Grade	Indicator	Learning Contents
	<p>P 3/3 Tell volume and capacity in litres and millilitres by using appropriate measuring tools, and compare weight and capacity by using the same units.</p> <p>P 3/4 Tell the time on a clock dial (period of 5 minutes); read, write and tell the time by using numerals.</p> <p>P 3/5 Tell the relationship between measuring units for length, height and time.</p> <p>P 3/6 Read and write amount of money by using numerals.</p>	<ul style="list-style-type: none"> - Measuring (liter a millimeter) Balance filtration, (bucket, liter, measuring spoon measures, measuring cup, fuel balance and drop fuel balance*) - Capacity comparison of the thing and the capacity of the utensils (the same division) - Capacity estimate of the things and the capacity of the utensils (the liter) - Giving the time information in a clock and minute (5 period per minute) - Writing to tell the time by use the dot and reading. - The relation of length division (a millimeter and centimeter, centimeter and the meter) - The relation of weight measurement division (a kilogram with 100 grams, 100 grams with a gram, a kilogram and a gram) - The relation of time division (minute with hour, hour with day, day with week, day with month, month with year, day with year) - Amount of money writing by use the dot and reading

Strand 2: Measurement

Standard M2.2: Solving measurement problems

Grade	Indicator	Learning Contents
3	P 3/1 Solve problems involving measurement of length, weight, volume, money and time.	<ul style="list-style-type: none">● Problem in mathematics about length measurement (add, minus)● Problem in mathematics about the weight measurement (add, minus)● Problem in mathematics about the capacity and the limit of capacity (add, minus)● Problem in mathematics about money (add, minus) Problem in mathematics about the time
3	P 3/2 Read and keep record of income and expenditure. P 3/3 Read and keep record of activities or events, specifying the time.	<ul style="list-style-type: none">● Reading and take notes of expenses receipts● Reading and take notes the activity or the events that is specify the time

Strand 3: Geometry

Standard M 3.1: Ability to explain and analyse two-dimensional and three-dimensional geometric figures

Grade	Indicator	Learning Contents
3	P 3/1 Identify two-dimensional geometric figures that are components of an object in the form of a three dimensional geometric figure. P 3/2 Identify two-dimensional geometric figures with axis of symmetry from a given figure.	<ul style="list-style-type: none">● Circle picture, picture is oval, triangle, square, pentagon, hexagon and octagon● A picture that has symmetry axle

Grade	Indicator	Learning Contents
	P 3/3 Write linear points, straight lines, rays, parts of straight lines, angles and symbols.	<ul style="list-style-type: none"> ● Dot, straight line, radioactivity, the part of a straight line, the dot cuts, corner and the symbol

Strand 3: Geometry

Standard M3.2: Ability for visualization, spatial reasoning and application of geometric models for problem-solving

Grade	Indicator	Learning Contents
3	<p>P 3/1 Draw two-dimensional geometric figures given in various models.</p> <p>P 3/2 Identify various geometric figures in the surroundings.</p>	<ul style="list-style-type: none"> ● Writing two geometry dimension picture ● Two geometry dimension picture

Strand 4: Algebra

Standard M 4.1: Understanding and ability to analyse pattern, relation and function

Grade	Indicator	Learning Contents
3	<p>P 3/1 Tell the numbers and relations in patterns of numbers that increases by 3s, 4s, 25s and 50s, and decreases by 3s, 4s, 5s, 25s and 50s and in repeated patterns.</p> <p>P 3/2 Identify the forms and relations in patterns in which forms are related in two of the following respects: shape, size or colour.</p>	<ul style="list-style-type: none"> ● A picture form of the amount that increases each by 3, 4, 25, 50 ● A picture form of the amount that is down each by 3, 4, 5, 25 and 50 with a repeated form ● A form of a picture that has the figure, size or color that is related with two character such as

Strand 4: Algebra

Standard M4.2: Ability to apply algebraic expressions, equations, inequalities, graphs and other mathematical models to represent various situations, as well as interpretation and application for problem-solving

Grade	Indicator	Learning Contents
3	-	-

Strand 5: Data Analysis and Probability

Standard M5.1: Understanding and ability to apply statistical methodology for data analysis

Grade	Indicator	Learning Contents
3	P 3/1 Collect and categorize data about oneself and the surroundings in daily life. P 3/2 Read data from simple pictograms and bar charts.	<ul style="list-style-type: none">● The saving collects the data and data classification about oneself and the environment near to see in the every day life● Reading the picture chart and chart

Strand 5: Data Analysis and Probability

Standard M 5.2: Application of statistical methodology and knowledge of probability for valid estimation

Grade	Indicator	Learning Contents
3	-	-

Strand 6: Mathematical Skills and Processes

Standard M6.1: Capacity for problem-solving, reasoning, and communication; communication and presentation of mathematical concepts; linking various bodies of mathematical knowledge and linking mathematics with other disciplines; and attaining ability for creative thinking

Grade	Indicator	Learning Contents
3	<p>P 3/1 Apply diverse methods for problem-solving.</p> <p>P 3/2 Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations.</p> <p>P 3/3 Suitably provide reasoning for decision-making and appropriately present the conclusions reached.</p> <p>P 3/4 Accurately use mathematical language and symbols for communication, communication of concepts and presentation.</p> <p>P 3/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines.</p> <p>P 3/6 Attain ability for creative thinking.</p>	

Course Description

M.13101 Mathematics

Group of learning mathematics

Grade 3

200 hours

Write and read Hindu-Arabic and Thai numerals and written forms showing quantity of objects or cardinal numbers not exceeding 100,000 and 0. Compare and arrange sequence of cardinal numbers not exceeding 100,000 and 0. Add, subtract and mix addition and subtraction of cardinal numbers not exceeding 100,000, and 0, as well as be aware of validity of the answers. Analyze and show method of finding answers to problems and mix-problems of cardinal numbers not exceeding 100,000, and 0, as well as be aware of validity of the answers. Tell length in metres, centimetres and millimetres by using appropriate measuring tools, and compare length. Tell weight in kilogram and gram by using appropriate weighing machine, and compare weights. Tell volume and capacity in litres and millilitres by using appropriate measuring tools, and compare weight and capacity by using the same units. Tell the time on a clock dial (period of 5 minutes); read, write and tell the time by using numerals. Tell the relationship between measuring units for length, height and time. Read and write amount of money by using numerals. Solve problems involving measurement of length, weight, volume, money and time. Read and keep record of income and expenditure. Read and keep record of activities or events, specifying the time. Identify two-dimensional geometric figures that are components of an object in the form of a three-dimensional geometric figure. Identify two-dimensional geometric figures with axis of symmetry from a given figure. Write linear points, straight lines, rays, parts of straight lines, angles and symbols. Draw two-dimensional geometric figures given in various models. Identify various geometric figures in the surroundings. Tell the numbers and relations in patterns of numbers that increases by 3s, 4s, 25s and 50s, and decreases by 3s, 4s, 5s, 25s and 50s and in repeated patterns. Identify the forms and relations in patterns in which forms are related in two of the following respects: shape, size or colour. Collect and categorize data about oneself and the surroundings in daily life. Read data from simple pictograms and bar charts. Apply diverse methods for problem-solving. Appropriately apply mathematical knowledge, skills and processes for problem-solving in various situations. Suitably provide reasoning for decision-making and appropriately present the conclusions reached. Accurately use mathematical language and symbols for communication, communication of concepts and presentation. Link various bodies of mathematical knowledge, and link mathematics with other disciplines. Attain ability for creative thinking.

Indicator Code

M 1.1 P.3/1, P.3/2

M 1.2 P.3/1, P.3/2

M 2.1 P.3/1, P.3/2, P.3/3, P.3/4, P.3/5, P.3/6

M2.2 P.3/1 , P3/2, P3/3

M3.1 P.3/1, P3/2, P3/3

M3.2 P.3/1, P3/2

M4.1 P.3/1, P3/2

M5.1 P.3/1, P3/2

M6.1 P.3/1, P3/2, P3/3, P3/4, P3/5, P3/6

Total 28 indicators

Standard of Learning and Yearly Indicator for each stage

Strand 1: Numbers and Operations

Standard M 1.1: Understanding diverse methods of presenting numbers and their application in real life

Grade	Indicator	Learning Contents
4	<p>P 4/1 Write and read Hindu-Arabic and Thai numerals and written forms showing cardinal numbers, 0, fractions, and one-place decimals.</p> <p>P 4/2 Compare and arrange sequence of cardinal numbers and 0, fractions, and one-place decimals.</p>	<ul style="list-style-type: none"> ● Writing Hindu Arabic number, Thai number and alphabet to shown the value and reading ● Meaning, writing and reading fraction Meaning, writing and reading one decimal point ● Value and digit number in the main of counting number and use 0 for stick the value position ● Writing value number in disperse ● Compare and order counting number ● Compare and order fraction that have same numerator ● Compare and order one decimal point

Strand 1: Numbers and Operations

Standard M 1.2: Understanding results of operations of numbers, relationships of operations, and application of operations for problem-solving

Grade	Indicator	Learning Contents
4	P 4/1 Add, subtract and mix addition, subtraction, multiplication and division of cardinal numbers and 0, as well as be aware of validity of the answers.	<ul style="list-style-type: none"> ● Addition, minus ● Multiply number one point and number more than four points ● Multiply number more than two points ● Divide that division not over than three points ● Addition, minus, multiply, mixed divide ● Average ● Question of addition, minus ● Question of multiply one point and number more than four points
	P 4/2 Analyse and show method of finding answers to problems and mix-problems of cardinal numbers and 0, as well as be aware of validity of the answers, and be able to construct problems.	<ul style="list-style-type: none"> ● Question of multiply more than one point and number more than two points ● Question of multiply about division not more than three points ● Question of addition, minus, multiply, mixed divide ● Create of question in addition, minus, multiply and divide
	P 4/3 Add and subtract fractions with same denominator.	<ul style="list-style-type: none"> ● Addition and minus fraction with the same denominator

Strand 1: Numbers and Operations

Standard M 1.3: Use of estimation in calculation and problem-solving

Grade	Indicator	Learning Contents
4	-	-

Strand 1: Numbers and Operations

Standard M1.4: Understanding of numerical system and application of numerical properties

Grade	Indicator	Learning Contents
4	-	-

Strand 2: Measurement

Standard M 2.1: Understanding the basics of measurement; ability to measure and estimate the size of objects to be measured

Grade	Indicator	Learning Contents
4	P4/1 Tell the relationship between measuring units for length, weight, volume or capacity and time.	<ul style="list-style-type: none">● The relation of length division (centimeter and a millimeter, the meter and centimeter, a kilometer and the meter, a square wah and the meter)● The relation of weight measurement division, (a gram and a kilogram, a kilogram and a metric ton, 100 grams with a gram)● The relation of measuring division (a millimeter and the cubic centimeter, a millimeter and the liter, the cubic centimeter and the liter)

Grade	Indicator	Learning Contents
	<p>P4/2 Find area of rectangle.</p> <p>P4/3 Tell the time on a clock dial; read and write the time by using numerals; and tell length of time.</p> <p>P4/4 Estimate length, weight and volume or capacity.</p>	<ul style="list-style-type: none"> ● The relation of time division (second with minute, minute with hour, hour with day, day with week, day with month, week with year, month with year, day with year) ● Seeking the division area tabular and a square centimeter ● Seeking the area of right angle quadrilateral ● Giving the time information from the face of a clock in a clock and minute ● Writing tells the time by use the dot and reading ● Giving period of time information ● Length estimate (centimeter, meter, the wah) ● Weight estimate (kilogram, 100 grams) <p>Capacity estimate or limit of capacity (the liter)</p>

Strand 2: Measurement

Standard M2.2: Solving measurement problems

Grade	Indicator	Learning Contents
4	<p>P 4/1 Solve problems involving measurement of length, weight, volume, money and time.</p> <p>P 4/2 Read and keep record of income and expenditure.</p> <p>P 4/3 Read and keep record of activities or events, specifying the time.</p>	<ul style="list-style-type: none"> ● Problem in mathematics about the activity or the events that is specify the time ● Problem in mathematics about the weight measurement ● Problem in mathematics about the measuring ● Problem in mathematics about money ● Problem in mathematics about the time ● Writing records of expenses of receipts ● Reading and writing record about the activity or the events that specify the time ● Reading the time table

Strand 3: Geometry

Standard M 3.1: Ability to explain and analyse two-dimensional and three-dimensional geometric figures

Grade	Indicator	Learning Contents
4	<p>P 4/1 Identify kind, name and components of angles and write symbols.</p> <p>P 4/2 Can identify which pair of straight lines or parts of straight lines form a parallel, as well as use symbols to indicate kind of parallel.</p> <p>P 4/3 Identify components of a circle.</p> <p>P 4/4 Can identify which figure or which part of an object has the form of a rectangle, and can identify whether it is a square or a rectangle.</p> <p>P 4/5 Can identify which two-dimensional geometric figures have axes of symmetry, and identify the number of axes.</p>	<ul style="list-style-type: none">● The components of the corner● Name and writing the symbol replace the corner● A kind of the corner (right angle, acute angle, the obtuse angle)● Parallel and the symbol shows paralleling● The components of circle picture (center, radius, diameter and a circumference of the heel round circle picture)● Right angle square● A square and a rectangle● A square that has symmetry axle

Strand 3: Geometry

Standard M3.2: Ability for visualization, spatial reasoning and application of geometric models for problem-solving

Grade	Indicator	Learning Contents
4	P 4/1 Use geometric figures to create various designs.	<ul style="list-style-type: none">● Design invention by use geometry picture

Strand 4: Algebra

Standard M 4.1: Understanding and ability to analyse pattern, relation and function

Grade	Indicator	Learning Contents
4	<p>P 4/1 Tell the numbers and relations in patterns of number which increases or decreases in equal amount each time.</p> <p>P 4/2 Identify the forms and relations in patterns of a given form.</p>	<ul style="list-style-type: none">● A picture form of the amount that increase or be down each in equal● A picture of geometry and other picture such as

Strand 4: Algebra

Standard M4.2: Ability to apply algebraic expressions, equations, inequalities, graphs and other mathematical models to represent various situations, as well as interpretation and application for problem-solving

Grade	Indicator	Learning Contents
4	-	-

Strand 5: Data Analysis and Probability

Standard M5.1: Understanding and ability to apply statistical methodology for data analysis

Grade	Indicator	Learning Contents
4	P 4/1 Collect and categorize data. P 4/2 Read data from pictograms, bar charts and tables. P 4/3 Draw pictograms and bar charts.	<ul style="list-style-type: none">● The saving collects the data and data classification● Reading picture chart● Reading chart, reading table● Writing picture and chart

Strand 5: Data Analysis and Probability

Standard M 5.2: Application of statistical methodology and knowledge of probability for valid estimation

Grade	Indicator	Learning Contents
4	-	-

Strand 6: Mathematical Skills and Processes

Standard M6.1: Capacity for problem-solving, reasoning, and communication; communication and presentation of mathematical concepts; linking various bodies of mathematical knowledge and linking mathematics with other disciplines; and attaining ability for creative thinking

Grade	Indicator	Learning Contents
4	P 4/1 Apply diverse methods for problem-solving. P 4/2 Appropriately apply mathematical and technological knowledge, skills and processes for problem-solving in various situations.	

	<p>P 4/3 Suitably provides reasoning for decision-making and appropriately present the conclusions reached.</p> <p>P 4/4 Accurately use mathematical language and symbols for communication, communication of concepts and presentation.</p> <p>P 4/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines.</p> <p>P 4/6 Attain ability for creative thinking.</p>	
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Course Description

M.14101 Mathematics

Group of learning mathematics

Grade 4

160 hours

Write and read Hindu-Arabic and Thai numerals and written forms showing cardinal numbers, 0, fractions, and one-place decimals. Compare and arrange sequence of cardinal numbers, 0 and fractions, and one-place decimals. Add, subtract and mix addition, subtraction, multiplication and division of cardinal numbers and 0, as well as be aware of validity of the answers. Analyse and show method of finding answers to problems and mix-problems of cardinal numbers and 0, as well as be aware of validity of the answers, and be able to construct problems. Add and subtract fractions with same denominator. Tell the relationship between measuring units for length, weight, volume or capacity and time. Find area of rectangle. Tell the time on a clock dial; read and write the time by using numerals; and tell length of time. Estimate length, weight and volume or capacity. Solve problems involving measurement of length, weight, volume, money and time. Read and keep record of income and expenditure. Read and keep record of activities or events, specifying the time. Identify kind, name and components of angles and write symbols. Can identify which pair of straight lines or parts of straight lines form a parallel, as well as use symbols to indicate kind of parallel. Identify components of a circle. Can identify which figure or which part of an object has the form of a rectangle, and can identify whether it is a square or a rectangle. Can identify which two-dimensional geometric figures have axes of symmetry, and identify the number of axes. Use geometric figures to create various designs. Tell the numbers and relations in patterns of number which increases or decreases in equal amount each time. Identify the forms and relations in patterns of a given form. Collect and categorize data. Read data from pictograms, bar charts and tables. Draw pictograms and bar charts. Apply diverse methods for problem-solving. Appropriately apply mathematical and technological knowledge, skills and processes for problem-solving in various situations. Suitably provides reasoning for decision-making and appropriately present the conclusions reached. Accurately use mathematical language and symbols for communication, communication of concepts and presentation. Link various bodies of mathematical knowledge, and link mathematics with other disciplines. Attain ability for creative thinking.

Indicator Code

M 1.1 P.4/1, P.4/2

M 1.2 P.4/1, P.4/2, P4/3

M 2.1 P.4/1, P.4/2, P.4/3, P.4/4

M2.2 P.4/1 , P4/2, P4/3

M3.1 P.4/1, P4/2, P4/3, P4/4, P4/5

M3.2 P.4/1

M4.1 P.4/1, P4/2

M5.1 P.4/1, P4/2, P4/3

M6.1 P.4/1, P4/2, P4/3, P4/4, P4/5, P4/6

Total 29 indicators

Standard of Learning and Yearly Indicator for each stage

Strand 1: Numbers and Operations

Standard M 1.1: Understanding diverse methods of presenting numbers and their application in real life

Grade	Indicator	Learning Contents
5	<p>P 5/1 Write and read fractions, mixed numbers and decimals with not more than 2 places.</p> <p>P 5/2 Compare and arrange sequence of fractions and decimals with not more than 2 places.</p> <p>P 5/3 Write fractions in decimal form and percentages; write percentages in the forms of fractions and decimals, and write decimals in the forms of fractions and percentages.</p>	<ul style="list-style-type: none"> ● Meaning, reading and writing real fraction, over fraction, mixed number and two decimal points ● Fraction that equal with counting number ● Writing counting number in fraction notation ● Equivalent fractions Proper fraction ● Main, Value main and digit number in the main of each number in counting number and two decimal points ● Writing value number in disperse ● Compare and order two decimal points ● Compare and order fraction Compare and order fraction with one is multiple of the other denominator ● Meaning, reading and writing percentage ● Writing percentage in denominator of factor in 10

Grade	Indicator	Learning Contents
		<p>and 100 in the form of decimal and percentage</p> <ul style="list-style-type: none"> • Writing percentage in fraction form and decimal <p>Writing two decimal points in fraction and percentage</p>

Strand 1: Numbers and Operations

Standard M 1.2: Understanding results of operations of numbers, relationships of operations, and application of operations for problem-solving

Grade	Indicator	Learning Contents
5	<p>P 5/1 Add, subtract and mix addition and subtraction of fractions, as well as be aware of validity of the answers.</p> <p>P 5/2 Add, subtract and mix addition and subtraction of decimals with answers in decimals of not more than 2 places, as well as be aware of validity of the answers.</p>	<ul style="list-style-type: none"> • Addition, minus fraction at the other denominator is multiple of other denominator • Multiply fraction with counting number • Multiply fraction with fraction • Divide fraction with counting number • Divide fraction with counting number • Divide counting number with fraction • Divide fraction with fraction • Addition, minus, multiply of mixed denominator • Addition and minus decimal not over than two points • Multiply decimal not over than two points with counting number

Grade	Indicator	Learning Contents
	<p>P 5/3 Analyse and show method of finding answers to problems and mix-problems of cardinal numbers, fractions, decimals and percentages, as well as aware of validity of the answers, and can construct problems involving cardinal numbers.</p>	<ul style="list-style-type: none"> ● Multiply one point decimal with one point decimal <p>Addition, minus, mixed multiply with decimal</p> <ul style="list-style-type: none"> ● Question of addition, minus, multiply, divide and mixed addition, minus, multiply, divide of counting number ● Question with rule of three in mathematic ● Create of question in addition, minus, multiply and mixed divide of counting number ● Question of addition, minus, multiply, divide fraction ● Question of addition, minus, mixed multiply of fraction ● Question of addition, minus, multiply, decimal and create question ● Percentage question in situation include percentage question about finding profit, lose money, discount and finding sell price

Strand 1: Numbers and Operations

Standard M 1.3: Use of estimation in calculation and problem-solving

Grade	Indicator	Learning Contents
5	P 5/1 Make approximate estimates of integers of 10, 100 and 1,000 of cardinal numbers, which can be applied.	<ul style="list-style-type: none">● The estimate value is similar to the ten integer, hundred full, full involve

Strand 1: Numbers and Operations

Standard M1.4: Understanding of numerical system and application of numerical properties

Grade	Indicator	Learning Contents
5	-	-

Strand 2: Measurement

Standard M 2.1: Understanding the basics of measurement; ability to measure and estimate the size of objects to be measured

Grade	Indicator	Learning Contents
5	<p>P 5/1 Tell the relationship between measuring units for length, weight and volume or capacity.</p> <p>P 5/2 Find the perimeter of quadrilaterals and triangles.</p> <p>P 5/3 Find the area of rectangles and triangles.</p> <p>P 5/4 Measure the size of angle.</p> <p>P 5/5 Find volume or capacity of cuboids.</p>	<ul style="list-style-type: none">● The relation division of measurement capacity or the limit of capacity (cubic centimeter, the cubic meter)● Length round a picture of a quadrilateral● Length round a picture of a triangle● Seek area of right angle quadrilateral● Seek area of a triangle

		<ul style="list-style-type: none"> ● Size measurement of the corner by use the diagraph ● Seeking size of the reflex angle ● Seeking capacity is division cubic, cubic centimeter and the cubic meter ● Seeking capacity or the capacity of square right angle shape by use a formula
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* be especial name of a tool that uses in the oil addition, (an office weighs, measure, Ministry of Commerce in develop the business)

Strand 2: Measurement

Standard M2.2: Solving measurement problems

Grade	Indicator	Learning Contents
5	P 5/1 Solve problems involving area and perimeter of quadrilaterals and triangles.	<ul style="list-style-type: none"> ● Problem in mathematics about the area of a quadrilateral, right angle and a triangle ● Problem in mathematics about length of round a picture and the right angle quadrilateral and a triangle

Strand 3: Geometry

Standard M 3.1: Ability to explain and analyse two-dimensional and three-dimensional geometric figures

Grade	Indicator	Learning Contents
5	<p>P 5/1 Identify characteristics and differentiate between various kinds of three-dimensional geometric figures.</p> <p>P 5/2 Identify characteristics, relationship and differentiate between various kinds of quadrilaterals.</p> <p>P 5/3 Identify characteristics, components, relationships and differentiate between various kinds of triangles.</p>	<ul style="list-style-type: none">● Sphere, cylinder, cone, prism, pyramid● Square, rectangle, rhombus, parallelogram, trapezoid and square picture kite● A triangle divides to follow the character of a side● A triangle divides to follow the character of the corner● The components of a triangle, the corner within of a triangle

Strand 3: Geometry

Standard M3.2: Ability for visualization, spatial reasoning and application of geometric models for problem-solving

Grade	Indicator	Learning Contents
5	<p>P 5/1 Construct angles by using a protractor.</p> <p>P 5/2 Create rectangles, triangles, and circles.</p> <p>P 5/3 Create parallels by using a set square.</p>	<ul style="list-style-type: none">● A kind of the corner, building corner by use the protector ruler● Make the right angle square picture● Make the triangle picture● Make a circle picture● Making parallel to change the dot that fixes to give by use T-square ruler

Strand 4: Algebra

Standard M 4.1: Understanding and ability to analyse pattern, relation and function

Grade	Indicator	Learning Contents
5	P 5/1 Tell the numbers and relations in patterns of given numbers.	<ul style="list-style-type: none">● A picture form of the amount

Strand 4: Algebra

Standard M4.2: Ability to apply algebraic expressions, equations, inequalities, graphs and other mathematical models to represent various situations, as well as interpretation and application for problem-solving

Grade	Indicator	Learning Contents
5	-	-

Strand 5: Data Analysis and Probability

Standard M5.1: Understanding and ability to apply statistical methodology for data analysis

Grade	Indicator	Learning Contents
5	<p>P 5/1 Draw bar charts with shortening of lines to represent numbers.</p> <p>P 5/2 Read data from comparative bar charts.</p>	<ul style="list-style-type: none">● The saving collects the data and data classification, chart writing that have wrinkle distance of the heel with amount shows● Reading chart with compare

Strand 5: Data Analysis and Probability

Standard M 5.2: Application of statistical methodology and knowledge of probability for valid estimation

Grade	Indicator	Learning Contents
5	P 5/1 Can tell whether a described situation: - will definitely happen; - may or may not happen; - will definitely not happen.	<ul style="list-style-type: none">● The estimate about the occurrence goes up in the different situation

Strand 6: Mathematical Skills and Processes

Standard M6.1: Capacity for problem-solving, reasoning, and communication; communication and presentation of mathematical concepts; linking various bodies of mathematical knowledge and linking mathematics with other disciplines; and attaining ability for creative thinking

Grade	Indicator	Learning Contents
5	P 5/1 Apply diverse methods for problem-solving. P 5/2 Appropriately apply mathematical and technological knowledge, skills and processes for problem-solving in various situations. P 5/3 Suitably provides reasoning for decision-making and appropriately present the conclusions reached. P 5/4 Accurately use mathematical language and symbols for	

Grade	Indicator	Learning Contents
	<p>communication, communication of concepts and presentation.</p> <p>P 5/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines.</p> <p>P 5/6 Attain ability for creative thinking.</p>	

Course Description

M.15101 Mathematics

Group of learning mathematics

Grade 5

160 hours

Write and read fractions, mixed numbers and decimals with not more than 2 places. Compare and arrange sequence of fractions and decimals with not more than 2 places. Write fractions in decimal form and percentages; write percentages in the forms of fractions and decimals, and write decimals in the forms of fractions and percentages. Add, subtract and mix addition and subtraction of fractions, as well as be aware of validity of the answers. Add, subtract and mix addition and subtraction of decimals with answers in decimals of not more than 2 places, as well as be aware of validity of the answers. Analyse and show method of finding answers to problems and mix-problems of cardinal numbers, fractions, decimals and percentages, as well as aware of validity of the answers, and can construct problems involving cardinal numbers. Make approximate estimates of integers of 10, 100 and 1,000 of cardinal numbers, which can be applied. Tell the relationship between measuring units for length, eight and volume or capacity. Find the perimeter of quadrilaterals and triangles. Find the area of rectangles and triangles. Measure the size of angle. Find volume or capacity of cuboids. Identify characteristics and differentiate between various kinds of three-dimensional geometric figures.

Identify characteristics, relationship and differentiate between various kinds of quadrilaterals. Identify characteristics, components, relationships and differentiate between various kinds of triangles. Tell the numbers and relations in patterns of given numbers. Draw bar charts with shortening of lines to represent numbers. Read data from comparative bar charts. Can tell whether a described situation: will definitely happen; may or may not happen; will definitely not happen. Apply diverse methods for problem-solving. Appropriately apply mathematical and technological knowledge, skills and processes for problem-solving in various situations. Suitably provides reasoning for decision-making and appropriately present the conclusions reached. Accurately use mathematical language and symbols for communication, communication of concepts and presentation. Link various bodies of mathematical knowledge, and link mathematics with other disciplines. Attain ability for creative thinking.

Indicator Code

M 1.1 P.5/1, P.5/2, P5/3

M 1.2 P.5/1, P.5/2, P5/3

M 1.3 P.5/1

M 2.1 P.5/1, P.5/2, P.5/3, P.5/4, P5/5

M 2.2 P.5/1

M3.1 P.5/1, P5/2, P5/3,

M3.2 P.5/1,P5/2, P5/3

M4.1 P.5/1

M5.1 P.5/1, P5/2

M5.2 P.5/1

M6.1 P.5/1, P5/2, P5/3, P5/4, P5/5, P5/6

Total 29 indicators

Standard of Learning and Yearly Indicator for each stage

Strand 1: Numbers and Operations

Standard M 1.1: Understanding diverse methods of presenting numbers and their application in real life

Grade	Indicator	Learning Contents
6	<p>P 6/1 Write and read decimals with not more than 3 places.</p> <p>P 6/2 Compare and arrange sequence of fractions and decimals with not more than 3 places.</p> <p>P 6/3 Write decimals in the form of fractions and write fraction in form of decimal.</p>	<ul style="list-style-type: none"> ● Meaning, reading and writing three decimal points ● Main, Main value, value of digit number in each main of three decimal positions ● Writing decimal in disperse ● Compare and order decimal point not over than 3 points ● Compare and order fraction ● Writing decimal point not over than three points in fraction ● Writing fraction in numerator with factor of 10, 100, 1,000 in decimal form

Strand 1: Numbers and Operations

Standard M 1.2: Understanding results of operations of numbers, relationships of operations, and application of operations for problem-solving

Grade	Indicator	Learning Contents
6	<p>P 6/1 Add, subtract and mix addition, subtraction, multiplication and division of fractions, mixed numbers and decimals, as well as be aware of validity of the answers.</p>	<ul style="list-style-type: none"> ● Addition, minus, multiply, fraction divide ● Addition, minus, multiply, mixed number divide

	<p>P 6/2 Analyse and show method of finding answers to problems and mix-problems of cardinal numbers, fractions mixed numbers, decimals and percentages, as well as be aware of validity of the answers, the answers, and can construct problems involving cardinal numbers.</p>	<ul style="list-style-type: none"> ● Addition, minus, multiply, mixed divide and mixed number Addition, minus, multiply, decimal divide with result not over than three points decimals ● Problem in combination of mathematic, minus, multiplication, divide by and the combination (addition), minus, erase, multiply by, divide by mix of the counting number ● Building problem in mathematic combination problem, minus, multiplication, divide by, and the combination (addition), minus, multiply by, divide by mix of the counting number ● Problem in problem combination mathematic (addition), minus, multiplication, divide by, the combination, minus, multiply by, divide by mix of the fraction
		<ul style="list-style-type: none"> ● Problem in combination mathematic (addition), minus, multiplication, divide by and the combination, minus,

		<p>multiply by, divide by mix of the decimal</p> <ul style="list-style-type: none"> ● Problem in combination mathematic multiplication problem, divide by, and the multiplication, divide by mix of the decimal, problem in problem percentage mathematic in differ situation, include problem in percentage mathematic about seeking profit, loss, price reduction, finding sell price, finding cost price and interest
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Strand 1: Numbers and Operations

Standard M 1.3: Use of estimation in calculation and problem-solving

Grade	Indicator	Learning Contents
6	<p>P 6/1 Make approximate estimates of various integers of cardinal numbers, which can be applied.</p> <p>P 6/2 Make estimates of decimals of not more than 3 places.</p>	<ul style="list-style-type: none"> ● The estimate value that is similar to number, ten thousands full, hundred thousands full and million full ● The estimate value that is similar to one position decimal and two positions

Strand 1: Numbers and Operations

Standard M1.4: Understanding of numerical system and application of numerical properties

Grade	Indicator	Learning Contents
6	P 6/1 Use communicative, associative and distributive properties in calculation. P 6/2 Find highest common factor (H.C.F.) and lowest common multiples (L.C.M.) of cardinal numbers.	<ul style="list-style-type: none">● Combination (addition), multiplication, combination, minus, multiply by, divide by mix● Factor prime number and the prime factor● Seeking the greatest common factor● Seeking the least common multiple

Strand 2: Measurement

Standard M 2.1: Understanding the basics of measurement; ability to measure and estimate the size of objects to be measured

Grade	Indicator	Learning Contents
6	P 6/1 Explain a route or indicate positions of various objects by specifying direction and real distance from pictures, maps and diagrams. P 6/2 Find the area of quadrilateral. P 6/3 Find the circumference and area of circles.	<ul style="list-style-type: none">● Direction● Giving position information by use the direction● Scale, reading plan● Seeking area of a quadrilateral by use length of a side● Seeking area of a quadrilateral by use the property of a diagonal● Seek length round a picture and the area of a circle picture

Strand 2: Measurement

Standard M2.2: Solving measurement problems

Grade	Indicator	Learning Contents
6	<p>P 6/1 Solve problems involving area and perimeter of quadrilaterals and circles.</p> <p>P 6/2 Solve problems involving volume and capacity of cuboids.</p> <p>P 6/3 Draw diagrams showing positions of various objects and diagrams showing travel routes.</p>	<ul style="list-style-type: none">● Area estimate of a quadrilateral● Problem in problem mathematics about length of round a picture and the area of a quadrilateral● Problem in problem mathematics about length of round a picture and the area of circle picture● Problem in mathematics about the capacity or the capacity limit of the right angle square in shape● Writing a diagrams to shows the thing in different● Writing a diagrams to shows the travel route● Writing a diagrams in brief

Strand 3: Geometry

Standard M 3.1: Ability to explain and analyse two-dimensional and three-dimensional geometric figures

Grade	Indicator	Learning Contents
6	P 6/1 Identify kinds of two-dimensional geometric figures that are components of three-dimensional geometric figures.	<ul style="list-style-type: none">● The components of three geometry dimension picture (square right angle shape, sphere, cylinder, cone, prism, the pyramid)
6	P 6/2 Identify characteristics of diagonals in various kinds of quadrilaterals.	<ul style="list-style-type: none">● The components of three geometry dimension picture (square right angle

	P 6/3 Identify which pair of straight lines is parallel.	<p>shape, sphere, cylinder, cone, prism, the pyramid)</p> <ul style="list-style-type: none"> ● Parallel meditation by live the alternate angle ● Parallel meditation by live the sum of the size with the corner within the location on one-sided of the heel cuts to 180 degrees
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Strand 3: Geometry

Standard M3.2: Ability for visualization, spatial reasoning and application of geometric models for problem-solving

Grade	Indicator	Learning Contents
6	<p>P 6/1 Create cuboids, cylinders, cones, prisms and pyramids from nets of three-dimensional geometric figures or two-dimensional geometric figures given.</p> <p>P 6/2 Construct various kinds of quadrilaterals.</p>	<ul style="list-style-type: none"> ● A picture unfolds of three geometry dimension picture (square right angle shape, sphere, cylinder, cone, prism, the pyramid) ● The invention of three picture geometry dimension ● Making square when fix length of a side and the size of the corner or when fix the length of a diagonal

Strand 4: Algebra

Standard M 4.1: Understanding and ability to analyse pattern, relation and function

Grade	Indicator	Learning Contents
6	P 6/1 Solve problems involving pattern.	<ul style="list-style-type: none">● A problem about picture

Strand 4: Algebra

Standard M4.2: Ability to apply algebraic expressions, equations, inequalities, graphs and other mathematical models to represent various situations, as well as interpretation and application for problem-solving

Grade	Indicator	Learning Contents
6	P 6/1 Write an equation based on a situation or problem, solve the equation and check the answer.	<ul style="list-style-type: none">● Algebraic linear equation that unknown one value● Repairing algebraic equation by use the property of bin equal about the addition, minus, multiplication or dividing by● Repairing problem in arithmetic a problem with the algebraic equation

Strand 5: Data Analysis and Probability

Standard M5.1: Understanding and ability to apply statistical methodology for data analysis

Grade	Indicator	Learning Contents
6	P 6/1 Read data from line graphs and pie-charts. P 6/2 Draw comparative bar charts and line graphs.	<ul style="list-style-type: none">● Reading the heel graph and circle picture chart● Writing compares chart and heel graph

Strand 5: Data Analysis and Probability

Standard M 5.2: Application of statistical methodology and knowledge of probability for valid estimation

Grade	Indicator	Learning Contents
6	P 6/1 Explain events by using terms with similar meaning to: - will definitely happen; - may or may not happen; - will definitely not happen.	<ul style="list-style-type: none">● The estimate about the occurrence goes up in the different situation

Strand 6: Mathematical Skills and Processes

Standard M6.1: Capacity for problem-solving, reasoning, and communication; communication and presentation of mathematical concepts; linking various bodies of mathematical knowledge and linking mathematics with other disciplines; and attaining ability for creative thinking

Grade	Indicator	Learning Contents
6	P 6/1 Apply diverse methods for problem-solving. P 6/2 Appropriately apply mathematical and technological knowledge, skills and processes for problem-solving in various situations. P 6/3 Suitably provides reasoning for decision-making and appropriately present the conclusions reached.	

	<p>P 6/4 Accurately use mathematical language and symbols for communication, communication of concepts and presentation.</p> <p>P 6/5 Link various bodies of mathematical knowledge, and link mathematics with other disciplines.</p> <p>P 6/6 Attain ability for creative thinking.</p>	
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Course Description

M.16101 Mathematics

Group of learning mathematics

Grade 6

160 hours

Write and read decimals with not more than 3 places. Compare and arrange sequence of fractions and decimals with not more than 3 places. Write decimals in the form of fractions and write fraction in form of decimal. Add, subtract and mix addition, subtraction, multiplication and division of fractions, mixed numbers and decimals, as well as be aware of validity of the answers. Analyse and show method of finding answers to problems and mix-problems of cardinal numbers, fractions mixed numbers, decimals and percentages, as well as be aware of validity of the answers, the answers, and can construct problems involving cardinal numbers. Make approximate estimates of various integers of cardinal numbers, which can be applied. Make estimates of decimals of not more than 3 places. Use communicative, associative and distributive properties in calculation. Find highest common factor (H.C.F.) and lowest common multiples (L.C.M.) of cardinal numbers. Explain a route or indicate positions of various objects by specifying direction and real distance from pictures, maps and diagrams. Find the area of quadrilateral. Find the circumference and are of circles. Solve problems involving area and perimeter of quadrilaterals and circles. Solve problems involving volume and capacity of cuboids. Draw diagrams showing positions of various objects and diagrams showing travel routes. P 6/1 Identify kinds of two-dimensional geometric figures that are components of three-dimensional geometric figures. Identify characteristics of diagonals in various kinds of quadrilaterals. Identify which pair of straight lines is parallel. Create cuboids, cylinders, cones, prisms and pyramids from nets of three-dimensional geometric figures or two-dimensional geometric figures given. Construct various kinds of quadrilaterals. Solve problems involving pattern. Write an equation based on a situation or problem, solve the equation and check the answer. Read data from line graphs and pie-charts. Draw comparative bar charts and line graphs. Explain events by using terms with similar meaning to: will definitely happen; may or may not happen; will definitely not happen. Apply diverse methods for problem-solving. Appropriately apply mathematical and technological knowledge, skills and processes for problem-solving in various situations. Suitably provides reasoning for decision-making and appropriately present the conclusions reached. Accurately use mathematical language and symbols for communication, communication of concepts and presentation. Link various bodies of mathematical knowledge, and link mathematics with other disciplines. Attain ability for creative thinking.

Indicator Code

M 1.1 P.6/1, P.6/2, P6/3

M 1.2 P.6/1, P.6/2

M 1.3 P.6/1, P.6/2

M1.4 P.6/1, P.6/2

M 2.1 P.6/1, P.6/2, P.6/3

M 2.2 P.6/1, P.6/2, P.6/3

M3.1 P.6/1, P6/2, P6/3,

M3.2 P.6/1,P.6/2

M4.1 P.6/1

M5.1 P.6/1, P6/2

M5.2 P.6/1

M6.1 P.6/1, P6/2, P6/3, P6/4, P6/5, P6/6

Total 30 indicators

Learning Area of Health and Physical Education

Why it is necessary to learn health and physical education

Health or state of health means the human condition with full development in all respects—physical, mental, social and intellectual or spiritual. Health or state of health is therefore important, as it is linked to all dimensions of life. All should learn about health for acquisition of knowledge, accurate understanding with proper attitude, morality and appropriate values, as well as practical skills in health for acquiring hygienic habits, resulting in the achievement of a society of quality.

What is learned in health and physical education

Health and physical education is education about health with the aims of maintaining and strengthening health and sustainable development of quality of life of individuals, families and communities.

Health Education places emphasis on enabling learners to concurrently develop behaviours regarding knowledge, attitude, morality, values and health practices.

Physical Education places emphasis on enabling learners to participate in kinesthetic activities, physical exercises, playing games and sports. It serves as an instrument in holistic development in all respects—physical, mental, emotional, social and intellectual, as well as imparting capacities for health and sports.

The learning area for health and physical education includes the following bodies of knowledge:

- **Human Growth and Development:** the nature of human growth and development; factors affecting growth; relationships and linkages in the functioning of various body systems as well as self-conduct for attaining growth and development in accord with students' age
- **Life and Family:** students' values and those of their families; self-adjustment to changes in various respects—physical, mental, emotional, sexual; creating and maintaining relationships with others; sexual health practices and life skills
- **Movement, Doing Physical Exercises, Playing Games, Thai and International Sports:** various forms of movement; participation in a variety of physical activities and sports, both as individuals and in teams, and both Thai and international sports; observance of rules,

regulations, orders, agreements for participation in physical activities and sports, and having sporting spirit

- **Strengthening of Health, Capacity and Disease Prevention:** principles and methods of selecting food for consumption, health products and services; capacity-strengthening for health and prevention of communicable and non- communicable diseases

- **Safety in Life:** self-protection from various risk behaviours, i.e., health risks, accidents, violence, harm from use of medicines and addictive substances as well as guidelines for promoting safety in life

Learners' Quality

Grade 3 graduates

- Have knowledge and understanding of human growth and development, factors affecting growth and development, methods of creating relationships in family and in groups of friends

- Have good health habits in eating, rest and sleep, cleanliness of all parts of the body, playing games and doing physical exercises

- Protect themselves from behaviours conducive to using addictive substances, sexual harassment and know how to refuse improper affairs

- Are able to control their own movements in accord with development of each age range; are skilful in basic movements and participate in physical activities; engage in games and activities for physical capacity-strengthening for health with enjoyment and safety

- Are skilful in selecting food for consumption, toys, utensils beneficial to health; able to avoid and protect themselves from accidents

- Are able to conduct themselves properly when faced with emotional and health problems

- Observe rules, orders, agreements, advice and various steps, and willingly cooperate with others until successful completion of tasks

- Observe their own rights and respect those of others in team play

Grade 6 graduates

- Understand relationships and linkages in the functioning of various systems of the body and know how to take care of important parts of such systems
- Understand the nature of changes in various respects—physical, mental, emotional, social, and sexual urge of men and women; when entering the age of puberty and adolescence, able to appropriately adjust and manage themselves
- Understand and appreciate value of having a warm and happy life and family
- Are proud of and appreciate value of their own sex; able to correctly and appropriately observe sexual practices
- Protect and avoid risk factors and risk behaviours detrimental to health or conducive to contracting diseases, accidents, violence, addiction and sexual harassment.
- Skilful in basic movements and self-control in coordinated movement
- Know principles of movement and able to select participation in physical activities, games, folk games, Thai sports and international sports with safety and enjoyment; have sporting spirit by observing rules, regulations, their own rights and duties until successful completion of tasks
- Plan and regularly participate in physical activities and activities for physical capacity-strengthening for health as appropriate and required
- Are able to appropriately manage emotions, stress and health problems
- Are skilful in seeking knowledge, data and information for health-strengthening

Learning Area of Health and Physical Education

Strand 1: Human Growth and Development

Standard H1.1: Understanding of nature of human growth and development

Class	Indicators	Core Learning Area
G.1	1. Explain characteristics and functions of external organs.	- characteristic and functions of external organs, growth and development Eyes, ears, nose, mouth, leg, hands, fingers Weight, height - parts of the mouth (lips, tongue, gums, teeth)
	2. Explain methods of taking care of external organs.	- keeping external organs clean : ears, nose mouth, leg, hands, fingers, etc. - parts of the mouth : lips , tongue, gums teeth.

Strand 2: Life and Family

Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills

Class	Indicators	Core Learning Area
G.1	1. Specify family members and love and bonds among family members.	- members of the family - love and bond among family members
	2. Tell what they delight in and are proud of in themselves.	- the family prides and delights of themselves (strength and weaknesses)
	3. Tell characteristics of differences between males and females.	- male and female characteristic differences: body, emotion ,attitude

Strand 3: Movement, Physical Exercise, Games, Thai and International Sports

Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports

Class	Indicators	Care Learning Area
G.1	1. Move body while standing still, moving and using equipment.	- nature of Body movement on Daily life : 1. Non-locomotion Movement: sit down, stand-up, head bend down, head bend right, head bend left, twisting of wrist, ankle, hands and legs 2. Locomotion : walk, run, jump, roll 3. Use of tools for throwing, flicking, etc.
	2. Play miscellaneous games and participate in physical activities requiring natural movement.	- activities used in natural body movement : playing various games

Standard H3.2 : Favour for physical exercise, playing games and sports regularly; observance of rights, rules and regulations; having sporting spirit; having true competitive spirit and appreciation of the aesthetics of sports

Class	Indicators	Care Learning Area
G.1	1. Enjoy doing physical exercise and playing games as advised.	- exercise and playing various games
	2. Observe rules, regulations and agreements in playing games as advised.	- rules, Regulations and agreements in playing games

Strand 4: Health Strengthening, Capacities and Disease Prevention

Standard H4.1 : Appreciation and skills in health strengthening; maintaining one's health;
disease prevention and strengthening capacity for health

Class	Indicators	Core Learning Area
G.1	1. Observe the principles of the National Health Regulations as advised.	- can do the principles of national health
	2. Tell symptoms of their own illness.	- tell symptom of their own illness: headache, fever, runny nose, stomachache, itch, bruises, etc.
	3. Follow advice when they have symptoms of an illness.	- follow advice when they have symptoms of an illness

Strand 5: Safety in Life

Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to
health; accidents; use of medicines; addictive substances and violence

Class	Indicators	Core Learning Area
G.1	1. Specify harmful things at home and in school, and methods of protection.	- specify harmful things at home and in school - the methods of protection harmful thing at home and in the school.
	2. Tell causes and protection from harm resulting from play.	- the protection from harm resulting from play. - tell harmful causes that result from playing
	3. Express words or gestures for seeking help when there are dangerous incidents at home and in school.	- eexpress words or gesture for seeking help when there are dangerous incidents at home and in school.

Description of basic courses

Health and Physical Education Grade 1

Time 40 hours

Study, observe, analyse and collect the knowledge and the rules of characteristics and functions of external organs, methods of taking care of external organs, family members and love and bonds among family members. Tell what they delight in and are proud of in themselves, characteristics of differences between males and females. Move body while standing still, moving and using equipment. Play miscellaneous games and participate in physical activities requiring natural movement. Enjoy doing physical exercise and playing games as advised. Observe rules, regulations and agreements in playing games as advised. Observe the principles of the National Health Regulations as advised. Tell symptoms of their own illness. Follow advice when they have symptoms of an illness. . Specify harmful things at home and in school, and methods of protection. Tell causes and protection from harm resulting from play. Express words or gestures for seeking help when there are dangerous incidents at home and in school.

By using the skill of communication, linkages, problem-solving, practice, investigation for seeking knowledge, observation, discussion and group procession.

Learners will achieve knowledge, understanding. They can apply in their life for developing their health. They have skills for their dairy life. They are good regulations. They are responsible and conscious of taking care of their health.

Indicator code

HP 1.1 G1/1, G1/2

HP 2.1 G1/1, G1/2, G1/3

HP 3.1 G1/1, G1/2

HP 3.2 G1/1, G1/2

HP 4.1 G1/1, G1/2, G1/3

HP 5.1 G1/1, G1/2, G1/3

Total 15 indicators

Course Syllabus Analyzing of Learning Area of Health Education Grade 1

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Human Growth and Development Standard H1.1: Understanding of nature of human growth and development			
P.1/1 Explain characteristics and functions of external organs.	- characteristic and functions of external organs, growth and development - weight/height - Parts of the mouth	- describing - searching knowledge - communication - presentation	- desire to learn - knowledge of the characteristics and function of external organs
P.1/2 Explain methods of taking care of external organs.	- Keeping external organs clean: - Parts of the mouth: lips, tongue, gums, and teeth.	- presentation - describing - communication - checking	- know how to take care of their external organs - - circumspection/awareness

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 2: Life and Family Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills			
P.1/1 Specify family members and love and bonds among family members.	<ul style="list-style-type: none"> - members of the family - love and bond among family members 	<ul style="list-style-type: none"> - Creative thinking - decision - relationship - responsibility 	<ul style="list-style-type: none"> - relationship of oneself and family - accept criticism - use of relationship
P.1/2 Tell what they delight in and are proud of in themselves.	<ul style="list-style-type: none"> - the family prides and delights of themselves 	<ul style="list-style-type: none"> - describing - communication - decision - group work - giving opinions 	<ul style="list-style-type: none"> - circumspection/awareness - accept criticism - value of thinking - acceptance of self weaknesses
P.1/3 Tell characteristics of differences between males and females.	<ul style="list-style-type: none"> - characteristic of male and female and their differences 	<ul style="list-style-type: none"> - describing - presentation - giving opinions - communication - creative thinking - searching knowledge 	<ul style="list-style-type: none"> - accept criticism - creative thinking - awareness - reasonable

Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports			
P.1/1. Move body while standing still, moving and using equipment.	<ul style="list-style-type: none"> - locomotion and non-locomotion - use of tools for throwing, flicking, etc. 	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - searching knowledge 	<ul style="list-style-type: none"> - value of movements - accept their ability
P.1/2 Play miscellaneous games and participates in physical activities requiring natural movement.	<ul style="list-style-type: none"> - playing various games 	<ul style="list-style-type: none"> - practice exercise - creative thinking - self-assessment - relationship 	<ul style="list-style-type: none"> - the value of exercise - conflict of sports competition - accept their ability - discipline

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.2: Favour for physical exercise, playing games and sports regularly; observance of rights, rules and regulations; having sporting spirit; having true competitive spirit and appreciation of the aesthetics of sports			
P.1/1 Enjoy doing physical exercise and playing games as advised.	- exercise and playing various games	- practice exercise - creative thinking - self-assessment - relationship	- the value of exercise - conflict of sports competition - accept their ability
P.1/2 Observe rules, regulations and agreements in playing games as advised.	- rules, regulations and agreements in playing games	- practice exercise - creative thinking - self-assessment relationship	- the value of exercise - conflict of sports competition - accept their ability

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 4: Health Strengthening, Capacities and Disease Prevention Standard H4.1: Appreciation and skills in health strengthening; maintaining one's health; disease prevention and strengthening capacity for health			
P.1/1 Observe the principles of the National Health Regulations as advised	- can do the principles of national health	- observing - creative thinking - decision - thinking progress	- awareness of health - accept criticism
P.1/2 Tell symptoms of their own illness.	- tell symptom of their own illness	- communicative - collecting data - adjusting - responsibility - first aid treatment	- awareness of health - responsibility - awareness of the illness
P.1/3 Follow advice when they have symptoms of an illness	- follow advice when they have symptoms of an illness	- communicative - collecting data - adjusting - first aid treatment	- awareness of the illness - taking care of oneself - values of thinking

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 5: Safety in Life Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to health; accidents; use of medicines; addictive substances and violence			
P.1/1 specifies harmful things at home and in school, and methods of protection.	<ul style="list-style-type: none"> - specify harmful things at home and in school - the methods of protection harmful thing at home and in the school. 	<ul style="list-style-type: none"> - decision - communication - giving opinions - searching data 	<ul style="list-style-type: none"> - awareness of the harmful things at home and in school - awareness of safety measure - importance of taking good care of oneself
P.1/2 tells causes and protection from harm resulting from play.	<ul style="list-style-type: none"> - the protection from harm resulting from play. - tell harmful causes that result from playing 	<ul style="list-style-type: none"> - communication - describing - searching knowledge - creative thinking 	<ul style="list-style-type: none"> - awareness of harm that are made from play - taking care of one self - circumspection - to know the prevention of danger

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.1/3 express words or gestures for seeking help when there are dangerous incidents at home and in school.	<ul style="list-style-type: none"> - express words or gesture for seeking help when there are dangerous incidents at home and in school. * which person you will ask for help * the words and gesture for seeking help 	<ul style="list-style-type: none"> - communication - giving opinions - searching data - assessment - analyzing - creative thinking 	<ul style="list-style-type: none"> - awareness about the people to call up when in needs

Learning Area of Health and Physical Education

Strand 1: Human Growth and Development

Standard H1.1: Understanding of nature of human growth and development

Class	Indicators	Core Learning Area
G.2	1. Explain characteristics and functions of internal organs.	- characteristic and functions of internal organs, growth and development (brain, heart, lung, intestine, kidney, liver, etc.)
	2. Explain methods of taking care of internal organs.	-keep the internal organs clean 1.avoid hitting by hard object 2. exercise 3. eat proper food
	3. Explain the nature of human life.	- nature of human life from birth to death

Strand 2: Life and Family

Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills

Class	Indicators	Core Learning Area
G.2	Specify their roles and duties and those of their family members.	- roles and duties of family members: oneself, parents, siblings, relatives
	2. Tell the importance of friends.	- the importance of friends (talk, suggestion/comment, play, etc.)
	3. Specify behaviours appropriate to sex.	- the appropriate sexual behavior : gentleman, lady

	4. Explain pride in being female or male.	- the pride of male and female
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Strand 3: Movement, Physical Exercise, Games, Thai and International Sports

Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports

Class	Indicators	Care Learning Area
G.2	1. Control body movements while standing still, moving and using equipment.	- the characteristics and the way to body movement e.g. 1. non-locomotion: hopping, twisting, pull, push 2. locomotion : jumping, side step, run on a direction and using tools such as throwing, hitting, picking up things by the use chopsticks
	2. Play miscellaneous games and participate in physical activities with methods that depend on basic movements while standing still, moving and using equipment.	- playing of various game and joined physical activities by basic movement, with non-locomotion and locomotion movement and use of tools

Strand 3: Movement, Physical Exercise, Games, Thai and International Sports

Standard H3.2 : Favour for physical exercise, playing games and sports regularly;
observance of rights, rules and regulations; having sporting spirit; having
true competitive spirit and appreciation of the aesthetics of sports

Class	Indicators	Care Learning Area
G.2	1. Can do physical exercise and play games themselves with enjoyment.	- exercise and play various game - benefits of exercise and playing games
	2. Observe rules, regulations and agreements in games played in teams.	- rules, Regulations and agreements in played in teams

Strand 4: Health Strengthening, Capacities and Disease Prevention

Standard H4.1 : Appreciation and skills in health strengthening; maintaining one's health;
disease prevention and strengthening capacity for health

Class	Indicators	Core Learning Area
G.2	1. Tell characteristics of having good health.	- characteristics of having good health : strength, mind (cheerful, bright) happy, safe
	2. Choose to take nutritious food.	- choose to take nutritious food and innutritious food
	3. Specify utensils and toys detrimental to health.	- specify utensils and toys bad to health
	4. Explain symptoms and methods of protection from possible illnesses and injuries.	- explain methods of protection from possible illnesses and injuries : sore eyes, diarrhea, etc.

		- symptoms and methods of protection from injuries (Insect bites, slip, etc.)
	5. Follow advice when they have symptoms of illnesses and injuries.	- follow advice when they have symptoms of illnesses and injuries

Strand 5: Safety in Life

Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to health; accidents; use of medicines; addictive substances and violence

Class	Indicators	Core Learning Area
G.2	1. Conduct themselves for protection from possible accidents in water and on land.	- accidents in water and on land * the causes of accidents in water and on land. *The way to prevent the accidents in water and on land.
	2. Tell names of household medicines and use them as advised.	- the household medicines * the names of the household medicines * using the household medicine as advised
	3. Specify the dangers of addictive substances and dangerous substances around them, and methods of protection.	-drugs and addictive substances * drugs and addictive substances around them * the methods of protection
	4. Observe the symbols or warning signs for harmful objects or places.	- symbols and signs that gives warning about danger
	5. Explain causes and dangers of fires, and explain methods for fire protection as well as show fire escape routes.	- fire * causes and danger of fire * the dangers of fire * methods fire protection as well as show fire escape routes.

Description of basic courses

Health and Physical Education Grade 2

Time 40 hours

Study, observe, analyse and collect the knowledge of characteristics and functions of internal organs and methods of taking care of internal organs. Explain the nature of human life. Specify their roles and duties and those of their family members. Tell the importance of friends. Specify behaviours appropriate to sex. Explain pride in being female or male. Control body movements while standing still, moving and using equipment. Play miscellaneous games and participate in physical activities with methods that depend on basic movements while standing still, moving and using equipment. Can do physical exercise and play games themselves with enjoyment. Observe rules, regulations and agreements in games played in teams. Tell characteristics of having good health. Choose to take nutritious food. Specify utensils and toys detrimental to health. Explain symptoms and methods of protection from possible illnesses and injuries. Follow advice when they have symptoms of illnesses and injuries. Conduct themselves for protection from possible accidents in water and on land. Tell names of household medicines and use them as advised. Specify the dangers of addictive substances and dangerous substances around them, and methods of protection. Observe the symbols or warning signs for harmful objects or places. Explain causes and dangers of fires, and explain methods for fire protection as well as show fire escape routes.

By using the skill of communication, linkages, problem-solving, practice, investigation for seeking knowledge, observation, discussion and group procession.

Learners will achieve knowledge, understanding. They can apply in their life for developing their health. They have skills for their dairy life. They are good regulations. They are responsible and conscious of taking care of their health.

Indicator code

HP 1.1 G2/1, G2/2, G2/3

HP 2.1 G2/1, G2/2, G2/3, G2/4

HP 3.1 G2/1, G2/2

HP 3.2 G2/1, G2/2

HP 4.1 G2/1, G2/2, G2/3, G2/4, G2/5

HP 5.1 G2/1, G2/2, G2/3, G2/4, G2/5

Total 21 indicators

Course Syllabus Analyzing of Learning Area of Health Education Grade 2

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Human Growth and Development Standard H1.1: Understanding of nature of Human growth and development			
P.2/1 Explain characteristics and functions of internal organs.	- characteristic and functions of internal organs, growth and development	- describing - searching knowledge - communication - presentation	- desire to learn - knowledge of the characteristics and function of internal organs
P.2/2 Explain methods of taking care of internal organs.	-keep the internal organs clean	- presentation - describing - communication - checking	- know how to take care of their internal organs - circumspection / awareness
P.2/3 Explain the nature of human life.	- nature of human life from birth to death	- describing - communication - searching data -searching knowledge	- realize the value of life - accept the nature of human life

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 2: Life and Family Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills			
P.2/1 Specify their roles and duties and those of their family members.	- roles and duties of family members	- creative thinking - decision - relationship - responsibility	- relationship of oneself and family - accept criticism - usage of relationship
P.2/2 Tell the importance of friends.	- the importance of friends	- creative thinking - decision - relationship - responsibility	- relationship of friends - accept criticism - usage of relationship
P.2/3 Specify behaviours appropriate to sex.	- the appropriate sexual behavior	- conducting good relationship - decision - considering	- realize the problems in sexual intercourse - awareness about pregnancy
P.2/7 Explain pride in being female or male.	- the pride of male and female	- decision - creative thinking	- self value

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports			
P.2/1 Control body movements while standing still, moving and using equipment.	<ul style="list-style-type: none"> - non locomotion - locomotion 	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - searching knowledge 	<ul style="list-style-type: none"> - value of movements - accept their ability
P.2/2 Play miscellaneous games and participate in physical activities with methods that depend on basic movements while standing still, moving and using equipment.	<ul style="list-style-type: none"> - participate various games and physical activities 	<ul style="list-style-type: none"> - practice exercise - creative thinking - self-assessment - relationship 	<ul style="list-style-type: none"> - the value of exercise - conflict of sports competition - accept their ability - discipline

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.2 : Favour for physical exercise, playing games and sports regularly; observance of rights, rules and regulations; having sporting spirit; having true competitive spirit and appreciation of the aesthetics of sports			
P.2/1 Can do physical exercise and play games themselves with enjoyment.	<ul style="list-style-type: none"> - exercise and play various game - benefits of exercise and playing games 	<ul style="list-style-type: none"> - self assessment - creative thinking - relationship with others - self assessment 	<ul style="list-style-type: none"> - accept ability - accept criticism
P.2/2 Observe rules, regulations and agreements in games played in teams.	<ul style="list-style-type: none"> - rules, regulations and agreements in played in teams 	<ul style="list-style-type: none"> - search data - relationship with others 	<ul style="list-style-type: none"> - accept self-ability and other abilities - sportsmanship - follow social rules

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 4: Health Strengthening, Capacities and Disease Prevention Standard H4.1 : Appreciation and skills in health strengthening; maintaining one's health; disease prevention and strengthening capacity for health			
P.2/1 Tell characteristics of having good health.	- characteristics of having good health	<ul style="list-style-type: none"> - searching data - describing - decision of encourage good health 	<ul style="list-style-type: none"> - to know the need of taking care of oneself - responsibility to control oneself - awareness of the characteristic
P.2/2 Choose to take nutritious food.	- choose to take nutritious food and innutritious food	<ul style="list-style-type: none"> - perform the manner of taking care of health - thinking process - decision 	<ul style="list-style-type: none"> - to know the importance of good health - taking good care of health by oneself by knowing the nutritious food

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.2/3 Specify utensils and toys detrimental to health.	- specify utensils and toys bad to health	- decision - identifying - identifying	- good behaviors become health - to know the usage of chosen food
P.2/4 Explain symptoms and methods of protection from possible illnesses and injuries.	- Explain methods of protection from possible illnesses and injuries. - Symptoms and methods of protection from injuries	- explanation - describing - identifying	- awareness of the symptom of illness and injuries - awareness of protection in illnesses and injuries - value of life
P2/5 Follow advice when they have symptoms of illnesses and injuries.	- Follow advice when they have symptoms of illnesses and injuries	- explanation - decision making - communication - responsibility	- awareness of health - accept criticism - realize the need of help -

Course Syllabus Analyzing of Learning Area of Health Education Grade 2

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 5: Safety in Life Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to health; accidents; use of medicines; addictive substances and violence			
P.2/1 Conduct themselves for protection from possible accidents in water and on land.	<ul style="list-style-type: none"> - accidents in water and on land - protection to prevent accidents 	<ul style="list-style-type: none"> - search data - conducting - creative thinking - responsibility - management 	<ul style="list-style-type: none"> - awareness causes of accidents in water and on land - know the way to prevent the accidents in water and on land.
P.2/2 Tell names of household medicines and use them as advised.	- The household medicines	<ul style="list-style-type: none"> - responsibility - searching data - identifying - management - creative thinking - conducting 	<ul style="list-style-type: none"> - awareness of the names of the household medicines - know the use of each household medicines

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.2/3 Specify the dangers of addictive substances and dangerous substances around them, and methods of protection.	- drugs and addictive substances	- analyzing - describing - search knowledge - search data	- awareness of addictive substance - self preservation - value of health
P.2/4 Observe the symbols or warning signs for harmful objects or places.	- symbols and signs that gives warning about danger	- search data - search knowledge - conducting - observing	- cautious - aware of symbols or warning of harmful places and objects
P.2/5 Explain causes and dangers of fires, and explain methods for fire protection as well as show fire escape routes	- fire	- decision - search data - conducting -describing	- aware of the cause and danger of fire - know the danger of fire - aware of the methods of fire protection - know the fire routes - cautious

Learning Area of Health and Physical Education

Strand 1: Human Growth and Development

Standard H1.1: Understanding of nature of human growth and development

Class	Indicators	Care Learning Area
G.3	1. Explain characteristics and growth of the human body.	- characteristic of human growth and individual differences : shape, weight, height
	2. Compare their growth with standard criteria.	-sStandard growth of Thai children
	3. Specify factors affecting growth.	- factors affecting growth : food , exercise, relax

Strand 2: Life and Family

Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills

Class	Indicators	Core Learning Area
G.3	1. Explain the importance and differences of the family on themselves.	- the importance and differences of the family: economy, social,
	2. Explain methods of creating relationships in the family and groups of friends.	- building relationships in the family and groups of friends
	3. Tell methods of avoiding behaviours conducive to sexual harassment.	- behaviours conducive to sexual harassment

Strand 3: Movement, Physical Exercise, Games, Thai and International Sports

Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports

Class	Indicators	Core Learning Area
G.3	1. Control body movements in guided directions while standing still, moving and using equipment.	1. Non-locomotion: up and down, tip-toe, etc., 2. Locomotion: moving from 1 foot to another, walking backward and forward, jumping. 3. Using the tool to enforce direction such as; throwing, catching, flicking. The way to control physical movement in different ways
	2. Move body by using kinaesthetic skills in guiding directions for playing miscellaneous games.	- physical activity by the use movement skill on direction pattern in various games.

Strand 3: Movement, Physical Exercise, Games, Thai and International Sports

Standard H3.2 : Favour for physical exercise, playing games and sports regularly; observance of rights, rules and regulations; having sporting spirit; having true competitive spirit and appreciation of the aesthetics of sports

Class	Indicators	Care Learning Area
G.3	1. Select physical exercises and folk games and play games suitable to their own strengths, weaknesses and limitations.	- select physical exercises and folk games and play games suitable to their own strengths, weaknesses and individual limitations

Class	Indicators	Care Learning Area
	2. Can observe themselves the rules, regulations and agreements of physical exercises, games and folk games.	- exercise games and folk games : Rules, Regulations and agreements in exercise in game played and folk games

Strand 4: Health Strengthening, Capacities and Disease Prevention

Standard H4.1 : Appreciation and skills in health strengthening; maintaining one's health; disease prevention and strengthening capacity for health

Class	Indicators	Core Learning Area
G.3	1. Explain transmission and methods of protection from spreading of diseases.	- transmissions and Methods of protection from spreading of diseases
	2. Classify the 5 groups of essential nutrients.	- the five groups of essential nutrients
	3. Choose to take a varied diet with all the 5 groups of essential nutrients in appropriate proportion.	- eat healthy foods * Take a varied diet with all the 5 groups of essential nutrients in appropriate proportion
	4. Show correct method of brushing teeth for proper cleaning.	- show correct method of brushing teeth for proper cleaning
	5. Can strengthen physical capacities as advised.	- build up physical fitness for good health * the way to assess the physical fitness

Class	Indicators	Core Learning Area
		* the way to build up physical capacity by exercise, relaxation, and recreation

Strand 5: Safety in Life

Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to health; accidents; use of medicines; addictive substances and violence

Class	Indicators	Core Learning Area
G.3	1. Conduct themselves for safety from accidents at home, in school and while travelling.	- contact themselves for safety from accidents at home, in school and while traveling.
	2. Show methods of seeking help from persons and various sources when there are dangerous incidents or accidents.	- show methods of seeking help from persons and various sources when there are serious incidents or accidents.
	3. Show methods of first aid treatment when injured from play.	- injuries that happens from playing * types of injuries * the methods of first aid treatment (injuries and stop bleeding, etc.)

Description of basic courses

Health and Physical Education Grade 3

Time 40 hours

Study and explain characteristics and growth of the human body. Compare their growth with standard criteria. Specify factors affecting growth. Explain the importance and differences of the family on themselves. Explain methods of creating relationships in the family and groups of friends. Tell methods of avoiding behaviours conducive to sexual harassment. Control body movements in guided directions while standing still, moving and using equipment. Move body by using kinaesthetic skills in guiding directions for playing miscellaneous games. Select physical exercises and folk games and play games suitable to their own strengths, weaknesses and limitations. Can observe themselves the rules, regulations and agreements of physical exercises, games and folk games. Explain transmission and methods of protection from spreading of diseases. Classify the 5 groups of essential nutrients. Choose to take a varied diet with all the 5 groups of essential nutrients in appropriate proportion. Show correct method of brushing teeth for proper cleaning.

Can strengthen physical capacities as advised. Conduct themselves for safety from accidents at home, in school and while travelling. Show methods of seeking help from persons and various sources when there are dangerous incidents or accidents. Show methods of first aid treatment when injured from play. By using the skill of communication, linkages, problem-solving, practice, investigation for seeking knowledge, observation, discussion and group procession.

Learners will achieve knowledge, understanding. They can apply in their life for developing their health. They have skills for their daily life. They are good regulators. They are responsible and conscious of taking care of their health.

Indicator code

HP 1.1 G3/1, G3/2, G3/3

HP 2.1 G3/1, G3/2, G3/3

HP 3.1 G3/1, G3/2

HP 3.2 G3/1, G3/2

HP 4.1 G3/1, G3/2, G3/3, G3/4, G3/5

HP 5.1 G3/1, G3/2, G3/3

Total 18 indicators

Course Syllabus Analyzing of Learning Area of Health Education Grade 3

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Human Growth and Development Standard H1.1: Understanding of nature of human growth and development			
P.3/1 Explain characteristics and growth of the human body.	- characteristic of human growth and individual differences	- explaining - describing - presentation - communication	- aware of the growth of human body - self value - acceptance of development
P.3/2 Compare their growth with standard criteria.	- standard growth of Thai children	- comparing - group work - identifying - analyzing - communication	- conscious of Thai children's standard growth - desire to learn - intended work
P.3/23 Specify factors affecting growth.	- factors affecting growth	- searching knowledge - analyzing - identifying	- desire to learn - intended work

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 2: Life and Family Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills			
P.3/1 Explain the importance and differences of the family on themselves.	- The importance and differences of the family	- describing - presentation - identifying - analyzing	- awareness of the differences in the family - self weakness
P.3/2 Explain methods of creating relationships in the family and groups of friends.	- Building relationships in the family and groups of friends	- creating a good relationship - decision - describing	- aware of methods in creating good relationship - control oneself - accept the usage of communication
P.3/3 Tell methods of avoiding behaviours conducive to sexual harassment.	- Behaviours conducive to sexual harassment	- describing - searching knowledge - responsibility - communicative skills	- awareness about the behavior that's conducive to sexual harassment - to know the prevention of danger

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports			
P.3/1 Control body movements in guided directions while standing still, moving and using equipment.	<ul style="list-style-type: none"> - non-locomotion - locomotion - using the tool to enforce direction. - way to control physical movement in different ways 	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - searching knowledge 	<ul style="list-style-type: none"> - value of movements - accept their ability
P.3/2 Move body by using kinaesthetic skills in guiding directions for playing miscellaneous games.	<ul style="list-style-type: none"> - physical activity by the use movement skill on direction pattern in various games 	<ul style="list-style-type: none"> - practice exercise - creative thinking - self-assessment - relationship 	<ul style="list-style-type: none"> - the value of exercise - accept their ability - discipline

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.2 : Favour for physical exercise, playing games and sports regularly; observance of rights, rules and regulations; having sporting spirit; having true competitive spirit and appreciation of the aesthetics of sports			
P.3/1 Select physical exercises and folk games and play games suitable to their own strengths, weaknesses and limitations.	- select physical exercises and folk games and play games suitable to their own strengths, weaknesses and individual limitations	- conducting of movement - identifying - making decision - searching knowledge	- value of movements - accept their ability - desire to learn
P.3/2 Can observe themselves the rules, regulations and agreements of physical exercises, games and folk games.	- exercise games and folk games : rules, regulations and agreements in exercise in game played and folk games	- observing - creative thinking - self-assessment - relationship	- the value of exercise - aware of rules, regulations and agreement - accept their ability - discipline

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 4: Health Strengthening, Capacities and Disease Prevention Standard H4.1 : Appreciation and skills in health strengthening; maintaining one's health; disease prevention and strengthening capacity for health			
P.3/1 Explain transmission and methods of protection from spreading of diseases.	- transmissions and methods of protection from spreading of diseases	- explaining - describing - responsibility - decision - search knowledge	- value of health - self value - aware of protection
P.3/2 Classify the 5 groups of essential nutrients.	- the five groups of essential nutrients	- identifying - search knowledge - classifying	- aware of the essential nutrients - desire to live - importance of health

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.3/3 Choose to take a varied diet with all the 5 groups of essential nutrients in appropriate proportion	- Eat healthy foods	<ul style="list-style-type: none"> - identifying - search knowledge - choosing - management - decision 	<ul style="list-style-type: none"> - self value - importance of diet - desire to learn - importance of health
P.3/4 Show correct method of brushing teeth for proper cleaning.	- Show correct method of brushing teeth for proper cleaning	<ul style="list-style-type: none"> - decision - management - search knowledge - conducting 	<ul style="list-style-type: none"> - aware of the method of brushing teeth - self value - communication - desire to learn - intended work
P.3/5 Can strengthen physical capacities as advised.	- Build up physical fitness for good health	<ul style="list-style-type: none"> - decision - management - search knowledge - thinking 	<ul style="list-style-type: none"> - awareness of way to assess a physical fitness - awareness exercise, relaxation, and recreation - accept criticism

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 5: Safety in Life Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to health; accidents; use of medicines; addictive substances and violence			
P.3/1 Conduct themselves for safety from accidents at home, in school and while travelling.	- safety from accidents at home, school and travelling	- decision - communication - giving opinions - searching data	- awareness of the harmful things at home and in school - awareness of safety measure - importance of taking good care of oneself
P.3/2 Show methods of seeking help from persons and various sources when there are dangerous incidents or accidents.	- Show methods of seeking help from persons and various sources when there are serious incidents or accidents.	- communication - describing - searching knowledge - creative thinking	- awareness of harm that are made from play - taking care of one self - circumspection - to know the prevention of danger
Indicators	Learning Standard /local		
	Knowledge	Process	Attribute

P.3/3 Show methods of first aid treatment when injured from play.	<ul style="list-style-type: none"> - Injuries that happens from playing <ul style="list-style-type: none"> * types of injuries * the methods of first aid treatment (injuries and stop bleeding, etc.) 	<ul style="list-style-type: none"> - identifying - search knowledge - analyzing 	<ul style="list-style-type: none"> - aware of the types of injuries - know the methods of first aid treatment
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Learning Area of Health and Physical Education

Strand 1: Human Growth and Development

Standard H1.1: Understanding of nature of human growth and development

Class	Indicators	Core Learning Area
G.4	1. Explain physical and mental growth and development in accord with their age.	- physical and mental growth and development (Middle Childhood 9-12 years old)
	2. Explain importance of muscles, bones and joints affecting health, growth and development.	- importance of muscles, bones, joints for health, growth and development
	3. Explain methods of taking care of muscles, bones and joints for efficient functioning.	- proper care for muscles, bones and joints in order for efficient functioning

Strand 2: Life and Family

Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills

Class	Indicators	Core Learning Area
G.4	1. Explain characteristics of friends and of good family members.	- characteristics of friends and of good family members
	2. Exhibit behaviours appropriate to their sex in accord with Thai culture.	- appropriate sex behaviours in accord with Thai culture
	3. Cite examples of methods of refusing harmful and inappropriate actions in sexual matters.	- children's protection on dangers of sex

Strand 3: Movement, Physical Exercise, Games, Thai and International Sports

Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports

Class	Indicators	Care Learning Area
G.4	1. Can control themselves when using integrated kinesthetic skills while standing still, moving and using equipment.	- integration of locomotion and non-locomotion movements such as; jumping while turning, zigzag, running with changing directions and use of tool like balls and strings.
	2. Practise free-hand physical exercises in accord with the beats.	- exercising with free-hand in accord with the beats.
	3. Play imitating games and activities in relays.	- play game relays
	4. Can play at least one kind of basic sport.	- basic sports like Chair ball, Hand ball

Strand 3: Movement, Physical Exercise, Games, Thai and International Sports

Standard H3.2 : Favour for physical exercise, playing games and sports regularly; observance of rights, rules and regulations; having sporting spirit; having true competitive spirit and appreciation of the aesthetics of sports

Class	Indicators	Core Learning Area
G.4	1. Do physical exercises and play games and sports that they like; able to analyse their own developmental effects by following examples and practices of others.	- do physical exercises and play games and sports that they like; able to analyze their own developmental effects by following examples and practices of others -know the value of exercise and game playing and sports for good health.

Class	Indicators	Core Learning Area
	2. Observe rules and regulations of basic sports in accord with the respective kinds of sports played.	- observe rules and regulations of basic sports in accord with the respective kinds of sports played.

Strand 4: Health Strengthening, Capacities and Disease Prevention

Standard H4.1 : Appreciation and skills in health strengthening; maintaining one's health; disease prevention and strengthening capacity for health

Class	Indicators	Core Learning Area
G.4	1. Explain relationship between the environment and health.	- the relationship between environments and health - proper management of the environment for good health
	2. Explain states of emotions and feelings affecting health.	- states of emotions and feelings affecting health such as; anger, stress, hate, sad, nervous, fear, jealous, bored, aggressive, glad, love, joy, comfortable - good effects of being healthy * Cheerful, happy, etc - bad effects of being unhealthy - headache, stomachache, loss of appetite, weak

Strand 5: Safety in Life

Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to health; accidents; use of medicines; addictive substances and violence

Class	Indicators	Core Learning Area
G.4	1. Explain the importance of the use of medicines and proper methods for using medicines.	<ul style="list-style-type: none">- the importance of the used of medicines- the proper methods for using medicines
	2. Show methods of first aid treatment when harmed by misuse of medicines, chemicals, insect and animal bites, and injuries from playing sports.	<ul style="list-style-type: none">- the method of first aid treatments<ul style="list-style-type: none">* the harmful effects of misused medicines* chemicals* insects and animal bites* injuries from playing sports
	3. Analyse the damage of cigarette smoking and alcoholic drinks on health and analyse methods of protection.	<ul style="list-style-type: none">- analyze the damage of cigarettes smoking and alcoholic drinks on health and analyze methods of protections

Description of basic courses

Health and Physical Education Grade 4

Time 40 hours

Study and analyse physical and mental growth and development in accord with their age. Explain importance of muscles, bones and joints affecting health, growth and development. Explain methods of taking care of muscles, bones and joints for efficient functioning. Explain characteristics of friends and of good family members. Exhibit behaviours appropriate to their sex in accord with Thai culture. Cite examples of methods of refusing harmful and inappropriate actions in sexual matters. Can control themselves when using integrated kinesthetic skills while standing still, moving and using equipment. Practise free-hand physical exercises in accord with the beats. Play imitating games and activities in relays. Can play at least one kind of basic sport. Do physical exercises and play games and sports that they like; able to analyse their own developmental effects by following examples and practices of others. Observe rules and regulations of basic sports in accord with the respective kinds of sports played. Explain relationship between the environment and health. Explain states of emotions and feelings affecting health. Analyse data on labels of food and health products to make consumption choices. Test and improve physical capacities from the results of physical fitness testing. Explain the importance of the use of medicines and proper methods for using medicines. Show methods of first aid treatment when harmed by misuse of medicines, chemicals, insect and animal bites, and injuries from playing sports. Analyse the damage of cigarette smoking and alcoholic drinks on health and analyse methods of protection.

* A more profound knowledge of what students know. Analyze the issues and assumptions of the knowledge by using knowledge of the basic course material. The hypothesis is a conceptual solution to check the reliability of the source of knowledge. The basic knowledge of the subject matter of the question. To provide an explanation. Point of view And report the results of research using the 1200 - 1600 words

By using the skill of investigation for seeking knowledge ,data group, discussion, group procession and linkages

* The use of critical thinking and reasoning. Problem solving process. The flow of knowledge from learning. Research and knowledge. Comment our analytical assumptions. And find out what students know (Knowing).

Learners will achieve knowledge, understanding. They realize for developing their health and other people. They are good regulations and make their daily life happily. They are responsible and conscious of taking care of their health.

* The ability to question. To attempt to explain the comments. As a solution to solve the problem. Ability to transfer knowledge. Compared to knowledge about meeting the different groups and how to recognize (Way of Knowing).

Indicator code

HP 1.1 G4/1, G4/2, G4/3

HP 2.1 G4/1, G4/2, G4/3

HP 3.1 G4/1, G4/2

HP 3.2 G4/1, G4/2

HP 4.1 G4/1, G4/2, G4/3, G4/4, G4/5

HP 5.1 G4/1, G4/2, G4/3

Total 18 indicators

Course Syllabus Analyzing of Learning Area of Health Education Grade 4

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Human Growth and Development Standard H1.1: Understanding of nature of human growth and development			
P.4/1 Explain physical and mental growth and development in accord with their age.	- physical and mental growth and development	- explaining - describing - presentation - communication	- aware of the growth of human body - self value - acceptance of development
P.4/2 Explain importance of muscles, bones and joints affecting health, growth and development.	- importance of muscles, bones, joints for health, growth and development	- explaining - describing - presentation - communication	- awareness - self value - acceptance of development
P.4/3 Explain methods of taking care of muscles, bones and joints for efficient functioning.	- proper care for muscles, bones and joints in order for efficient functioning	- explaining - describing - presentation - communication	- awareness - self value - acceptance of development

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 2: Life and Family Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills			
P.4/1 Explain characteristics of friends and of good family members.	- characteristics of friends and of good family members	- creative thinking - decision - relationship - responsibility	- relationship of oneself and family - accept criticism - usage of relationship
P.4/2 Exhibit behaviours appropriate to their sex in accord with Thai culture.	- appropriate sex behaviours in accord with Thai culture	- creative thinking - decision - relationship - responsibility	- relationship of oneself and family - accept criticism - usage of relationship - Thai wisdom - Thai value
P.4/3 Cite examples of methods of refusing harmful and inappropriate actions in sexual matters.	- children's protection on dangers of sex	- creative thinking - decision - search knowledge - relationship - responsibility	- relationship of oneself and family - awareness - cautious - usage of relationship

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports			
P.4/1 Can control themselves when using integrated kinesthetic skills while standing still, moving and using equipment.	<ul style="list-style-type: none"> - locomotion - non locomotion 	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - searching knowledge 	<ul style="list-style-type: none"> - value of movements - accept their ability
P.4/2 Practise free-hand physical exercises in accord with the beats.	<ul style="list-style-type: none"> - exercising with free-hand in accord with the beats. 	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - searching knowledge 	<ul style="list-style-type: none"> - value of movements - accept their ability

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.4/3 Play imitating games and activities in relays.	- Play game relays	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - searching knowledge - imitating 	<ul style="list-style-type: none"> - value of movements - accept their ability - desire to learn - intended work
P.4/4 Can play at least one kind of basic sport.	- Basic sports like Chair ball, Hand ball	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - searching knowledge 	<ul style="list-style-type: none"> - value of movements - accept their ability - intended work - diligent - awareness

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.2 : Favour for physical exercise, playing games and sports regularly; observance of rights, rules and regulations; having sporting spirit; having true competitive spirit and appreciation of the aesthetics of sports			
P.4/1 Do physical exercises and play games and sports that they like; able to analyse their own developmental effects by following examples and practices of others.	- Do physical exercises and play games and sports that they like.	- identifying - search knowledge - decision - management	- able to analyze their own developmental effects -know the value of exercise and game playing and sports for good health.
P.4/2 Observe rules and regulations of basic sports in accord with the respective kinds of sports played.	- observe rules and regulations of basic sports in accord with the respective kinds of sports played.	- management - making decision - searching knowledge - responsibility	- value of movements - aware of the rules ad regulations - sportsmanship - good relationship - good follower

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 4: Health Strengthening, Capacities and Disease Prevention Standard H4.1 : Appreciation and skills in health strengthening; maintaining one’s health; disease prevention and strengthening capacity for health			
P.4/1 Explain relationship between the environment and health.	<ul style="list-style-type: none"> - the relationship between environments and health - proper management of the environment for good health 	<ul style="list-style-type: none"> - searching data -management environment for good health - decision of encourage good health -explaining -responsibility 	<ul style="list-style-type: none"> - to know the usage and the need of taking care of oneself and others - responsibility to control oneself - self vale - discipline
P.4/2 Explain states of emotions and feelings affecting health.	<ul style="list-style-type: none"> - states of emotions and feelings affecting health - good effects of being healthy - bad effects of being unhealthy 	<ul style="list-style-type: none"> - exclaiming - identifying - responsibility - decision - presentation 	<ul style="list-style-type: none"> - awareness -cautious - desire to learn - Intended work

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.4/3 Analyse data on labels of food and health products to make consumption choices.	<ul style="list-style-type: none"> - analyze data on labels of food and health products to make consumption choices 	<ul style="list-style-type: none"> - perform the manner of taking care of health - thinking process - management - responsibility - decision 	<ul style="list-style-type: none"> -to know the importance of good health - taking good care of health by oneself
P.4/4 Test and improve physical capacities from the results of physical fitness testing	<ul style="list-style-type: none"> - assess the physical fitness - improve physical capacities from the results of physical fitness testing 	<ul style="list-style-type: none"> - management - identifying - conducting - search knowledge 	<ul style="list-style-type: none"> - awareness - cautious - desire to learn
Strand 5: Safety in Life Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to health; accidents; use of medicines; addictive substances and violence			

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.4/1 Explain the importance of the use of medicines and proper methods for using medicines.	<ul style="list-style-type: none"> - the importance of the used of medicines - the proper methods for using medicines 	<ul style="list-style-type: none"> - explanation - describing - identifying 	<ul style="list-style-type: none"> - awareness of the symptom of illness and injuries - awareness of protection in illnesses and injuries - value of life
P.4/2 Show methods of first aid treatment when harmed by misuse of medicines, chemicals, insect and animal bites, and injuries from playing sports.	<ul style="list-style-type: none"> - the method of first aid treatments 	<ul style="list-style-type: none"> - explanation - decision making - communication - responsibility 	<ul style="list-style-type: none"> - awareness of health - accept criticism - realize the need of help - awareness of first aid treatment
P.4/3 Analyse the damage of cigarette smoking and alcoholic drinks on health and analyse methods of protection.	<ul style="list-style-type: none"> - analyze the damage of cigarettes smoking and alcoholic drinks on health and analyze methods of protections 	<ul style="list-style-type: none"> - explanation - describing - identifying 	<ul style="list-style-type: none"> - awareness - cautious - desire to learn - intended work - value of life

Learning Area of Health and Physical Education

Strand 1: Human Growth and Development

Standard H1.1: Understanding of nature of human growth and development

Class	Indicators	Core Learning Area
G.5	1. Explain importance of digestive and excretory systems on health, growth and development.	-The Importance of digestive and excretory system for health, growth and development
	2. Explain methods of taking care of digestive and excretory systems for functioning.	-Methods of taking care of digestive and excretory system for effective functioning

Strand 2: Life and Family

Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills

Class	Indicators	Core Learning Area
G.5	1. Explain sexual changes and conduct themselves appropriately.	- stages of sexual development and conduct themselves appropriately
	2. Explain the importance of having a warm family in accord with Thai culture.	- values of Sexual Ethics according to Thai culture.
	3. Specify desirable and undesirable behaviours in resolving conflicts in family and groups of friends.	- children's protection against drugs

Strand 3: Movement, Physical Exercise, Games, Thai and International Sports

Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports

Class	Indicators	Core Learning Area
G.5	1 . Arrange patterns of integrated movements and control themselves when using kinesthetic skills in accord with the patterns prescribed.	- the pattern of body movements - conducting of body activity - locomotors movement and non locomotors movement - use the tool such as exercise,
	2. Play games leading to chosen sports and kinesthetic activities in relays.	- games through the sports and relay activity such as hitting, throwing, running, catching.
	3. Control movements regarding accepting and using forces and balance.	- regards accept and use of force and balance
	4. Show mechanical skills in participating in physical activities and playing sports.	- show mechanical skills in participating in physical activities and playing sports
	5. Can play Thai and international sports as individuals and in teams, one of each kind.	-can play Thai and international sports such as Tak-roh, running, tug of war, badminton, football table tennis
	6. Explain principles and participate in at least one recreational activity.	- principles and recreation activity

Strand 3: Movement, Physical Exercise, Games, Thai and International Sports

Standard H3.2 : Favour for physical exercise, playing games and sports regularly;
observance of rights, rules and regulations; having sporting spirit;
having true competitive spirit and appreciation of the aesthetics of sports

Class	Indicators	Care Learning Area
G.5	1. Do physical exercises by following patterns, play games requiring thinking skills and decision-making.	- principles and Patterns of exercise Exercise and game played. e.g. various games, mimic, modeling and folk game
	2. Regularly play their favourite sports by creating a variety of alternatives for their own practice, and have sporting spirit.	-playing Thai sports and international sports by individual and team suitable for the level. - play their favorite sports by creating a variety of alternatives of their own practice and have sporting spirits.
	3. Observe rules and regulations of playing games and Thai and international sports in accord with the respective kinds of sports played.	- observe rules and regulations of playing games and Thai and international sports in accord with the respective kinds of sports played. -how to charge and protect in playing Thai and international sports.
	4. Observe their own rights, do not infringe on those of others and accept individual differences in playing games and Thai and international sports.	- observe their own rights, do not infringe on those of others. - except individual difference in playing games in Thai and international sports.

Strand 4: Health Strengthening, Capacities and Disease Prevention

Standard H4.1 : Appreciation and skills in health strengthening; maintaining one's health; disease prevention and strengthening capacity for health

Class	Indicators	Core Learning Area
G.5	1. Show behaviours that recognise the importance of observing the National Health Regulations.	-the importance of observing the national health regulations
	2. Search for data and information for health-strengthening.	- search for data and information for health-strengthening
	3. Analyse advertising media to inform decision-making when choosing to buy food and health products with proper reasons.	- making decisions on buying foods and health products (foods, cosmetics, hygiene) with proper reasons
	4. Observe requirements for self-protection from diseases frequently found in daily life.	- observe requirements for self protection from diseases frequently found in daily life. : fever, hemorrhagic, skin rashes, tooth decay, etc.
	5. Test and improve physical capacity from results of physical fitness testing.	- assess physical fitness - improve physical capacity from results of physical fitness testing

Strand 5: Safety in Life

Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to health; accidents; use of medicines; addictive substances and violence

Class	Indicators	Core Learning Area
G.5	1. Analyse the factors influencing the use of addictive substances.	- the factors influencing the used of addictive substances (liquor, cigarettes, drugs, etc.) * family, friends and society * values and beliefs * health problems * materials, etc.
	2. Analyse effects of the use of medicines and addictive substances on the body, mind, emotions, society and the intellect.	- the effects of the used of medicines and addictive substances on the body, mind and emotions, society and the intellect.
	3. Conduct themselves for safety from misuse of medicines and to avoid addictive substances.	- conduct themselves from safety from misuse of medicines ad avoid addictive substances. - avoiding addictive substances
	4. Analyse the influence of media on health behaviours.	- the influence of media on health behavior (internet, games, etc.)
	5. Conduct themselves for protection from harm from playing sports.	- conduct themselves from protection from harm, from playing sports

Description of basic courses

Health and Physical Education Grade 5

Time 40 hours

Study, analyse and observe the importance of digestive and excretory systems on health, growth and development. Explain methods of taking care of digestive and excretory systems for functioning. Explain sexual changes and conduct themselves appropriately. Explain the importance of having a warm family in accord with Thai culture. Specify desirable and undesirable behaviours in resolving conflicts in family and groups of friends. Arrange patterns of integrated movements and control themselves when using kinesthetic skills in accord with the patterns prescribed. Play games leading to chosen sports and kinesthetic activities in relays.

Control movements regarding accepting and using forces and balance. Show mechanical skills in participating in physical activities and playing sports. Can play Thai and international sports as individuals and in teams, one of each kind. Explain principles and participate in at least one recreational activity. Do physical exercises by following patterns, play games requiring thinking skills and decision-making. Regularly play their favourite sports by creating a variety of alternatives for their own practice, and have sporting spirit. Observe rules and regulations of playing games and Thai and international sports in accord with the respective kinds of sports played. Observe their own rights, do not infringe on those of others and accept individual differences in playing games and Thai and international sports. Show behaviours that recognise the importance of observing the National Health Regulations. Search for data and information for health-strengthening. Analyse advertising media to inform decision-making when choosing to buy food and health products with proper reasons. Observe requirements for self-protection from diseases frequently found in daily life. Test and improve physical capacity from results of physical fitness testing. Analyse the factors influencing the use of addictive substances.

Analyse effects of the use of medicines and addictive substances on the body, mind, emotions, society and the intellect. Conduct themselves for safety from misuse of medicines

and to avoid addictive substances. Analyse the influence of media on health behaviours.
Conduct themselves for protection from harm from playing sports.

* A more profound knowledge of what students know. Analyze the issues and assumptions of the knowledge by using knowledge of the basic course material. The hypothesis is a conceptual solution to check the reliability of the source of knowledge. The basic knowledge of the subject matter of the question. To provide an explanation. Point of view And report the results of research using the 1200 - 1600 words

By using the skill of seeking knowledge ,survey, checking, searching for data, data group and group procession

* The use of critical thinking and reasoning. Problem solving process. The flow of knowledge from learning. Research and knowledge. Comment our analytical assumptions. And find out what students know (Knowing).

Learners will achieve knowledge, understanding about meaning and importance of developing health. They realize for developing their health and other people. They are good regulations and make their daily life happily. They are responsible and conscious of health and safety both themselves and other people.

* The ability to question. To attempt to explain the comments. As a solution to solve the problem. Ability to transfer knowledge. Compared to knowledge about meeting the different groups and how to recognize (Way of Knowing).

Indicator code

HP 1.1 G5/1, G5/2

HP 2.1 G5/1, G5/2, G5/3

HP 3.1 G5/1, G5/2, G5/3, G5/4, G5/5, G5/6

HP 3.2 G5/1, G5/2, G5/3, G5/4

HP 4.1 G5/1, G5/2, G5/3, G5/4, G5/5

HP 5.1 G5/1, G5/2, G5/3, G5/4, G5/5

Total 25 indicators

Course Syllabus Analyzing of Learning Area of Health Education Grade 5

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Human Growth and Development Standard H1.1: Understanding of nature of human growth and development			
P.5/1 Explain importance of digestive and excretory systems on health, growth and development.	- the importance of digestive and excretory system for health, growth and development	- describing - searching knowledge - communication - presentation	- desire to learn - knowledge of the characteristics and function of digestive and excretory system
P.5/2 Explain methods of taking care of digestive and excretory systems for functioning.	- methods of taking care of digestive and excretory system for effective functioning	- presentation - describing - communication - checking	-know how to take care of their -digestive and excretory system -circumspection/awareness -cautiousness -self value

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 2: Life and Family Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills			
P.5/1 Explain sexual changes and conduct themselves appropriately.	- stages of sexual development and conduct themselves appropriately	-adjusting - explaining -responsibility -collecting data -good life skills are - preventing social problems	-to know the usage and need to take care of one's health -the value of thinking - conscious of Thai - pride of Thai wisdom
P.5/2 Explain the importance of having a warm family in accord with Thai culture.	- values of sexual ethics according to Thai culture.	-explaining - adjusting -responsibility -collecting data -good life skills are - preventing social problems	-to know the usage and need to take care of one's health -the value of thinking - conscious of Thai - pride of Thai wisdom

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.5/3 Specify desirable and undesirable behaviours in resolving conflicts in family and groups of friends.	- desirable and undesirable behavior	-adjusting -responsibility -collecting data -good life skills are -preventing social problems	-to know the usage and need to take care of one's health -the value of thinking - conscious of Thai - pride of Thai wisdom
Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports			
P.5/1 Arrange patterns of integrated movements and control themselves when using kinaesthetic skills in accord with the patterns prescribed.	- the pattern of body movements - conducting of body activity - locomotors movement and non locomotors movement - use the tool such as exercise,	- conducting of movement - importance of exercise - making decision	- usage of exercise - awareness - cautious - desire to earn - taking care of good health

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.5/2 Play games leading to chosen sports and kinesthetic activities in relays.	- Games through the sports and relay activity such as hitting, throwing, running, catching.	- conducting of movement - importance of exercise - making decision	- usage of exercise - awareness - cautious - desire to earn - taking care of good health
P.5/3 Control movements regarding accepting and using forces and balance.	- regards accept and use of force and balance	- conducting of movement - importance of exercise - making decision	- usage of exercise - awareness - cautious - desire to learn - taking care of good health
P.5/4 Show mechanical skills in participating in physical activities and playing sports.	- show mechanical skills in participating in physical activities and playing sports	- conducting of movement - importance of exercise - making decision	- usage of exercise - awareness - cautious - desire to earn - taking care of good health

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.5/5 Can play Thai and international sports as individuals and in teams, one of each kind.	- can play Thai and international sports	- conducting of movement - importance of exercise - making decision	- usage of exercise - awareness - cautious - desire to learn - love of Thai sports
P.5/6 Explain principles and participate in at least one recreational activity.	- principles and recreation activity	- conducting of movement - importance of exercise - making decision	- awareness - cautious - desire to learn

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.2 : Favour for physical exercise, playing games and sports regularly; observance of rights, rules and regulations; having sporting spirit; having true competitive spirit and appreciation of the aesthetics of sports			
P.5/1 Do physical exercises by following patterns, play games requiring thinking skills and decision-making.	- Principles and Patterns of exercise	- conducting of movement - importance of exercise - making decision - thinking	- usage of exercise - awareness - cautious - desire to earn - taking care of good health

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P5/2 Regularly play their favourite sports by creating a variety of alternatives for their own practice, and have sporting spirit.	<ul style="list-style-type: none"> -Playing Thai sports and international sports by individual and team suitable for the level. - Play their favorite sports 	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - responsibility 	<ul style="list-style-type: none"> - usage of exercise - awareness - cautious - desire to earn - taking care of good health - love of Thai sports
P.5/3 Observe rules and regulations of playing games and Thai and international sports in accord with the respective kinds of sports played.	<ul style="list-style-type: none"> - Observe rules and regulations of playing games and Thai and international sports in accord with the respective kinds of sports played. - How to charge and protect in playing Thai and international sports. 	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - responsibility 	<ul style="list-style-type: none"> - usage of exercise - awareness - cautious - desire to earn - taking care of good health

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P5/4 Observe their own rights, do not infringe on those of others and accept individual differences in playing games and Thai and international sports.	<ul style="list-style-type: none"> - observe their own rights, do not infringe on those of others. - except individual difference in playing games in Thai and international sports. 	<ul style="list-style-type: none"> - responsibility - conducting of movement - importance of exercise - responsibility - making decision 	<ul style="list-style-type: none"> - awareness - cautious - desire to learn
Strand 4: Health Strengthening, Capacities and Disease Prevention Standard H4.1 : Appreciation and skills in health strengthening; maintaining one's health; disease prevention and strengthening capacity for health			
P.5/1 Show behaviours that recognise the importance of observing the National Health Regulations.	-The importance of observing the national health regulations	<ul style="list-style-type: none"> - observing - creative thinking - decision - thinking progress - responsibility 	<ul style="list-style-type: none"> - awareness of health - accept criticism - Self value

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.5/2 Search for data and information for health-strengthening.	- Search for data and information for health-strengthening	- communicative - collecting data - adjusting - responsibility - first aid treatment	- awareness of health - responsibility - awareness of the illness
P.5/3 Analyse advertising media to inform decision-making when choosing to buy food and health products with proper reasons.	- Making decisions on buying foods and health products (foods, cosmetics, hygiene) with proper reasons	- analyzing - management - creative thinking - decision - thinking progress	- awareness of health - accept criticism - self value - intended work
P.5/4 Observe requirements for self-protection from diseases frequently found in daily life.	- Observe requirements for self protection from diseases frequently found in daily life. : fever, hemorrhagic, skin rashes, tooth decay, etc.	- observing - communicative - collecting data	- awareness of health - self value - cautiousness -

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.5/5 Test and improve physical capacity from results of physical fitness testing.	<ul style="list-style-type: none"> - Assess physical fitness - Improve physical capacity from results of physical fitness testing 	<ul style="list-style-type: none"> - communicative - collecting data - adjusting 	<ul style="list-style-type: none"> - awareness - taking care of oneself - values of thinking
Strand 5: Safety in Life Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to health; accidents; use of medicines; addictive substances and violence			-
P.5/1 Analyse the factors influencing the use of addictive substances.	<ul style="list-style-type: none"> - The factors influencing the used of addictive substances 	<ul style="list-style-type: none"> - observing - creative thinking - decision - thinking progress 	<ul style="list-style-type: none"> - awareness of health - accept criticism - self value - intended work - desire to learn

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.5/2 Analyse effects of the use of medicines and addictive substances on the body, mind, emotions, society and the intellect.	<ul style="list-style-type: none"> - The effects of the used of medicines and addictive substances on the body, mind and emotions, society and the intellect. 	<ul style="list-style-type: none"> - communicative - collecting data - adjusting - responsibility - first aid treatment 	<ul style="list-style-type: none"> - awareness of health - responsibility - awareness of the illness - taking care of themselves
P.5/3 Conduct themselves for safety from misuse of medicines and to avoid addictive substances.	<ul style="list-style-type: none"> - Conduct themselves from safety from misuse of medicines ad avoid addictive substances. - Avoiding addictive substances 	<ul style="list-style-type: none"> - conducting - management -observing - creative thinking - decision - thinking progress 	<ul style="list-style-type: none"> - awareness of health - accept criticism - self value - intended work - desire to learn
P.5/4 Analyse the influence of media on health behaviours	<ul style="list-style-type: none"> - The influence of media on health behavior (internet, games, etc.) 	<ul style="list-style-type: none"> - analyzing - management - creative thinking - decision - thinking progress 	<ul style="list-style-type: none"> - awareness of health - accept criticism - self value - intended work - desire to learn

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.5/5 Conduct themselves for protection from harm from playing sports.	- Conduct themselves from protection from harm, from playing sports	<ul style="list-style-type: none"> - observing - conducting - creative thinking - decision - thinking progress 	<ul style="list-style-type: none"> - awareness of health - accept criticism - self value - intended work - desire to learn

Learning Area of Health and Physical Education

Strand 1: Human Growth and Development

Standard H1.1: Understanding of nature of human growth and development

Class	Indicators	Core Learning Area
G.6	1. Explain the importance of reproductive and circulatory systems affecting health, growth and development.	- Importance of reproductive and circulatory system affecting health, growth and development
	2. Explain methods of taking care of reproductive, circulatory and respiratory systems for normal functioning.	-methods of taking care of reproductive, circulatory and respiratory systems for normal functioning

Strand 2: Life and Family

Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills

Class	Indicators	Core Learning Area
G.6	1. Explain the importance of creating and maintaining relationships with others.	- importance of creating and maintaining relationships with others - factors of success for teamwork : individual ability, duties of the members, acceptance of others' idea and individual differences, responsibility
	2. Analyse risk behaviours conducive to sexual intercourse, contracting AIDS and premature pregnancy.	- risk behaviours conducive to sexual intercourse, contracting AIDS and premature pregnancy

Strand 3: Movement, Physical Exercise, Games, Thai and International Sports

Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports

Class	Indicators	Care Learning Area
G.6	1. Can show kinesthetic skills with others in relays and in integration while standing still, moving and using equipment and movements attuned to songs.	- can show kinesthetic skills with others in relays and in integration while standing still, moving and using equipment and movements attuned to songs
	2. Classify kinaesthetic principles regarding accepting and using forces and balance of body movements in playing games and sports, and apply results for improving and increasing their practices and those of others.	- controlling movements regarding accepting and using forces and balance in game and sports
	3. Can play Thai and international sports as individuals and in teams, one of each kind.	-can play Thai and international sports as individuals and in team, one of each kind. e.g. running, swimming, table tennis, volleyball, football, etc.
	4. Use mechanical skills for improving and increasing their own capacities and those of others in playing sports.	- use mechanical skills for improving and increasing their own capacities and those of other in playing sports.
	5. Participate in at least one recreational activity, and apply the knowledge or principles obtained as a basis for studying and seeking knowledge about other matters.	-participate in at least one recreational activity, and apply the knowledge or principles obtained as a basis for studying and seeking knowledge about other matters.

Strand 3: Movement, Physical Exercise, Games, Thai and International Sports

Standard H3.2 : Favour for physical exercise, playing games and sports regularly;
observance of rights, rules and regulations; having sporting spirit;
having true competitive spirit and appreciation of the aesthetics of sports

Class	Indicators	Core Learning Area
G.6	1. Explain the benefits and principles of doing physical exercise for health, physical capacity and personality-strengthening.	- Explain the benefits and principles of doing physical exercise for health, physical capacity and personality-strengthening
	2. Play games requiring planning skills, and able to increase skills for physical exercises and movements on a systematic basis.	- play games requiring planning skills Able to increase skills for physical exercises and movements on a systematic basis
	3. Play their favourite sports and able to regularly assess their own playing skills.	- play their own favorite sports Able to regularly assess their own playing skills
	4. Observe rules and regulations of the respective kinds of sports played, bearing in mind their own safety and that of others.	- observe Rules and regulations in Thai sports and international sports
	5. Distinguish offensive and defensive strategies and apply teams in playing sports.	-distinguish offensive and defensive strategies and apply teams in playing sports
	6. Play games and sports in unity and have sporting spirit.	- play games and sports in unity and have sporting spirit

Strand 4: Health Strengthening, Capacities and Disease Prevention

Standard H4.1 : Appreciation and skills in health strengthening; maintaining one's health; disease prevention and strengthening capacity for health

Class	Indicators	Core Learning Area
G.6	1. Show behaviours for preventing and solving environmental problems affecting health.	<ul style="list-style-type: none">- the importance of environment affecting health- solving environmental problems affecting health- preventing and solving environmental problems affecting health
	2. Analyse effects from spreading of diseases and propose guidelines for preventing important communicable diseases prevalent in Thailand.	<ul style="list-style-type: none">- the recent epidemic- the effect of epidemic- guidelines for preventing important communicable diseases prevalent in Thailand
	3. Show behaviours indicating responsibility for health for all.	<ul style="list-style-type: none">- show behavior indicating responsibility for health and for all
	4. Continuously strengthen and improve physical capacity for health.	<ul style="list-style-type: none">- the way to assess the physical fitness- continuously strengthen and improve physical capacity for health

Strand 5: Safety in Life

Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to health; accidents; use of medicines; addictive substances and violence

Class	Indicators	Core Learning Area
G.6	1. Analyse effects of violence from natural disasters on the body, mind and society.	- natural disasters * types of natural disaster * the effects of violence from natural disaster on the body, mind and society
	2. Specify self-conduct for safety from natural disasters.	-specify self conduct for safety for natural disasters
	3. Analyse causes of addiction to drugs and persuade others to avoid the use of drugs.	- the cause of addiction to drugs - persuade others to avoid the use of dugs

Description of basic courses

Health and Physical Education Grade 6

Time 40 hours

Study, analyse and observe the importance of reproductive and circulatory systems affecting health, growth and development. Explain methods of taking care of reproductive, circulatory and respiratory systems for normal functioning. Explain the importance of creating and maintaining relationships with others. Analyse risk behaviours conducive to sexual intercourse, contracting AIDS and premature pregnancy. Can show kinesthetic skills with others in relays and in integration while standing still, moving and using equipment and movements attuned to songs. Classify kinaesthetic principles regarding accepting and using forces and balance of body movements in playing games and sports, and apply results for improving and increasing their practices and those of others. Can play Thai and international sports as individuals and in teams, one of each kind. Use mechanical skills for improving and increasing their own capacities and those of others in playing sports. Participate in at least one recreational activity, and apply the knowledge or principles obtained as a basis for studying and seeking knowledge about other matters. Explain the benefits and principles of doing physical exercise for health, physical capacity and personality-strengthening. Play games requiring planning skills, and able to increase skills for physical exercises and movements on a systematic basis. Play their favourite sports and able to regularly assess their own playing skills. Observe rules and regulations of the respective kinds of sports played, bearing in mind their own safety and that of others. Distinguish offensive and defensive strategies and apply teams in playing sports. Play games and sports in unity and have sporting spirit. Show behaviours for preventing and solving environmental problems affecting health. Analyse effects from spreading of diseases and propose guidelines for preventing important communicable diseases prevalent in Thailand. Show behaviours indicating responsibility for health for all. Continuously strengthen and improve physical capacity for health. Analyse effects of violence from natural disasters on the body, mind and society. Specify self-conduct for safety from natural disasters. Analyse causes of addiction to drugs and persuade others to avoid the use of drugs.

* A more profound knowledge of what students know. Analyze the issues and assumptions of the knowledge by using knowledge of the basic course material. The hypothesis is a conceptual solution to check the reliability of the source of knowledge. The

basic knowledge of the subject matter of the question. To provide an explanation. Point of view And report the results of research using the 1200 - 1600 words

By using the skill of seeking knowledge ,survey, checking, searching for data, data group and group procession

* The use of critical thinking and reasoning. Problem solving process. The flow of knowledge from learning. Research and knowledge. Comment our analytical assumptions. And find out what students know (Knowing).

Learners will achieve knowledge, understanding about meaning and importance of developing health. They realize for developing their health and other people. They are good regulations and make their daily life happily. They are responsible and conscious of health and safety both themselves and other people.

* the ability to question. To attempt to explain the comments. As a solution to solve the problem. Ability to transfer knowledge. Compared to knowledge about meeting the different groups and how to recognize (Way of Knowing).

Indicator code

HP 1.1 G6/1, G6/2

HP 2.1 G6/1, G6/2

HP 3.1 G6/1, G6/2, G6/3, G6/4, G6/5

HP 3.2 G6/1, G6/2, G6/3, G6/4, G6/5, G6/6

HP 4.1 G6/1, G6/2, G6/3, G6/4

HP 5.1 G6/1, G6/2, G6/3

Total 25 indicators

Course Syllabus Analyzing of Learning Area of Health Education Grade 6

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 1: Human Growth and Development Standard H1.1: Understanding of nature of human growth and development			
P.6/1 Explain the importance of reproductive and circulatory systems affecting health, growth and development.	- importance of reproductive and circulatory system affecting health, growth and development	- describing - searching knowledge - communication - presentation	- desire to learn - knowledge of the characteristics and function of reproductive and circulatory system
P.6/2 Explain methods of taking care of reproductive, circulatory and respiratory systems for normal functioning.	- methods of taking care of reproductive, circulatory and respiratory systems for normal functioning	- presentation - describing - communication - checking	- know how to take care of their reproductive and circulatory - circumspection/awareness - cautiousness - self value

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 2: Life and Family Standard H2.1: Understanding and self-appreciation; family; sex education; and life skills			
P.6/1 Explain the importance of creating and maintaining relationships with others.	<ul style="list-style-type: none"> - Importance of creating and maintaining relationships with others - Factors of success for teamwork : individual ability, duties of the members, acceptance of others' idea and individual differences, responsibility 	<ul style="list-style-type: none"> - creative thinking - decision - relationship - responsibility 	relationship of oneself and family accept criticism usage of relationship
P.6/2 Analyse risk behaviours conducive to sexual intercourse, contracting AIDS and premature pregnancy.	<ul style="list-style-type: none"> - Risk behaviours conducive to sexual intercourse, contracting AIDS and premature pregnancy 	<ul style="list-style-type: none"> - thinking - self-confidence - decision 	behavior of sexual intercourse - cautiousness realize the need of help

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.1: Understanding and skills in movement; physical activities; playing games and sports			
P.6/1 Can show kinaesthetic skills with others in relays and in integration while standing still, moving and using equipment and movements attuned to songs.	- Can show kinesthetic skills with others in relays	- conducting of movement - importance of exercise - making decision - searching knowledge	- value of movements - accept their ability
P.6/2 Classify kinaesthetic principles regarding accepting and using forces and balance of body movements in playing games and sports, and apply results for improving and increasing their practices and those of others.	- Controlling movements	- conducting of movement - importance of exercise - making decision - searching knowledge	- value of movements - accept their ability

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.6/3 Can play Thai and international sports as individuals and in teams, one of each kind.	-Can play Thai and international sports as individuals and in team, one of each kind. e.g. running, swimming, table tennis, volleyball, football, etc.	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - searching knowledge 	<ul style="list-style-type: none"> - value of movements - accept their ability
P.6/4 Use mechanical skills for improving and increasing their own capacities and those of others in playing sports.	- Use mechanical skills for improving and increasing their own capacities and those of other in playing sports.	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - searching knowledge 	<ul style="list-style-type: none"> - value of movements - accept their ability
P.6/5 Participate in at least one recreational activity, and apply the knowledge or principles obtained as a basis for studying and seeking knowledge about other matters.	- Participate in at least one recreational activity, and apply the knowledge or principles obtained as a basis for studying and seeking knowledge about other matters.	<ul style="list-style-type: none"> - conducting of movement - importance of exercise - making decision - searching knowledge 	<ul style="list-style-type: none"> - value of movements - accept their ability

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 3: Movement, Physical Exercise, Games, Thai and International Sports Standard H3.2 : Favour for physical exercise, playing games and sports regularly; observance of rights, rules and regulations; having sporting spirit; having true competitive spirit and appreciation of the aesthetics of sports			
P.6/1 Explain the benefits and principles of doing physical exercise for health, physical capacity and personality-strengthening.	- Explain the benefits and principles of doing physical exercise for health, physical capacity and personality-strengthening	- relationship with others - responsibility - communication - adapting - making decision	- accept ability - sportsmanship - cooperate with others
P6/2 Play games requiring planning skills, and able to increase skills for physical exercises and movements on a systematic basis.	- Play games requiring planning skills Able to increase skills for physical exercises and movements on a systematic basis	- relationship with others - responsibility - communication - adapting - making decision	- accept ability - sportsmanship - cooperate with others

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.6/3 Play their favourite sports and able to regularly assess their own playing skills.	<ul style="list-style-type: none"> - Play their own favorite sports Able to regularly assess their own playing skills 	<ul style="list-style-type: none"> - relationship with others - responsibility - communication - adapting - making decision 	<ul style="list-style-type: none"> - accept ability - sportsmanship - cooperate with others
P6/4 Observe rules and regulations of the respective kinds of sports played, bearing in mind their own safety and that of others.	<ul style="list-style-type: none"> - Observe Rules and regulations in Thai sports and international sports 	<ul style="list-style-type: none"> - relationship with others - responsibility - communication - adapting - making decision - observing 	<ul style="list-style-type: none"> - accept ability - sportsmanship - cooperate with others -
P6/5 Distinguish offensive and defensive strategies and apply teams in playing sports.	<ul style="list-style-type: none"> - Distinguish offensive and defensive strategies and apply teams in playing sports 	<ul style="list-style-type: none"> - relationship with others - communication - adapting - identifying - analyzing 	<ul style="list-style-type: none"> - know how to cooperate with others - aware of the offensive and defensive strategies

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P6/6 Play games and sports in unity and have sporting spirit.	- Play games and sports in unity and have sporting spirit	- relationship with others - responsibility - communication - adapting - making decision	- accept ability - sportsmanship - cooperate with others
Strand 4: Health Strengthening, Capacities and Disease Prevention Standard H4.1 : Appreciation and skills in health strengthening; maintaining one's health; disease prevention and strengthening capacity for health			-
P.6/1 Show behaviours for preventing and solving environmental problems affecting health.	- The importance of environment to health - Solving and preventing environmental problems that will affect health	- creative thinking - relationship with others - responsible	- can take care of one self - aware on the preventing and solving environmental problems - self preservation -

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
P.6/2 Analyse effects from spreading of diseases and propose guidelines for preventing important communicable diseases prevalent in Thailand.	<ul style="list-style-type: none"> - The recent epidemic - The effect of epidemic - Guidelines for preventing important communicable diseases prevalent in Thailand 	<ul style="list-style-type: none"> - management - responsibility - relationship with others - analyzing 	<ul style="list-style-type: none"> - aware of the epidemic - aware of the prevention of the disease - self preservation - concern to others - aware of the value for taking good care of oneself
P.6/3 Show behaviours indicating responsibility for health for all.	<ul style="list-style-type: none"> - show behavior indicating responsibility for health and for all 	<ul style="list-style-type: none"> - communicative skills - collecting data - adjusting - responsibility 	<ul style="list-style-type: none"> - awareness of having good health - cautious
P.6/4 Continuously strengthens and improves physical capacity for health.	<ul style="list-style-type: none"> - the way to assess the physical fitness - continuously strengthen and improve physical capacity for health 	<ul style="list-style-type: none"> - communicative skills - collecting data - adjusting - responsibility 	<ul style="list-style-type: none"> - cautious - aware how to strengthens and improves good health - self value

Indicators	Learning Standard /local		
	Knowledge	Process	Attribute
Strand 5: Safety in Life Standard H5.1: Prevention and avoidance of risk factors; behaviours detrimental to health; accidents; use of medicines; addictive substances and violence			
P.6/1 Analyse effects of violence from natural disasters on the body, mind and society.	- Natural disasters * types of natural disaster * the effects of violence from natural disaster on the body, mind and society	- analyzing - communication - identifying - thinking process - search knowledge - decision	- aware of the effect of natural disaster - desire to learn - cautious - planning to live
P.6/2 Specify self-conduct for safety from natural disasters.	- Specify self conduct for safety for natural disasters	- decision - identifying - thinking process - searching knowledge	- value of oneself - cautious
P.6/3 Analyse causes of addiction to drugs and persuade others to avoid the use of drugs.	- The cause of addiction to drugs - Persuade others to avoid the use of dugs	- communicative skills - life skills - collecting data - adjusting - responsibility - collecting data	- to know the prevention of danger -thinking process - accept the usage of communication - planning to live

Learning Area of Occupation

Why it is necessary to learn Occupations and Technology

The learning area of occupations and technology contributes to development of learners in acquiring knowledge and understanding basic skills essential to their lives. Learners will thus be alert to changes and able to apply knowledge about living, occupations and technology to their work with creativity and competitiveness in Thai society and the world community. Learners will be able to see prospects for their future careers, love working and have a favourable attitude towards work, as well as lead a happy life in society, based on the principles of sufficiency.

What is learned in occupations and Technology?

The learning area of occupations and technology is aimed at learners' holistic development with a view to enabling them to acquire knowledge, capacity and essential skills required for work. Learners will thus efficiently see the prospects of their future careers and further education. The main contents include:

- **Life and Family:** work in daily life; ability to help themselves, their families and society under guidance of the principles of sufficiency economy; intent not to destroy the environment; emphasis on actual practice until attainment of confidence and pride in their accomplishments in order to discover their own capacities, aptitudes and interests
- **Design and Technology:** creative development of human capacities by applying knowledge with technological processes to create objects, utensils and methodologies, or to increase efficiency in life.
- **Information and Communication Technologies (ICTs):** process of information technologies; communication; the search for data; application of data and information; solution of problems or creation of work; value and effects of ICTs
- **Occupations:** skills essential to learners' occupations; recognition of the importance of morality, ethics and favourable attitude towards occupations; ability to use technologies appropriately; appreciation of value of honest occupations; and ability to see prospects for future careers

Learners' Quality

Grade 3 graduates

- Understand working methods to help themselves, their families and the public; use materials, instruments and equipment correctly as required for the type of work; have skills in processes of work; have skills in characteristics and habits of work that show enthusiasm, punctuality, economy, care for safety, cleanliness and carefulness, and have awareness of the need to protect the environment

- Understand the benefits of objects and utensils in daily life; have ideas for solving problems and responding to needs through creative thinking; are skilful in making simple toys and utensils by applying technological processes, i.e., identify problems or needs, collect data, design by conveying ideas through a two-dimensional sketch, construct and evaluate; choose materials and instruments appropriate for application; choose to use objects and utensils creatively in daily life, and manage objects and utensils through recycling

- Understand and are skilful in searching for data at all stages, presenting data in various forms and applying methods of care and maintenance of ICTs

Grade 6 graduates

- Understand working and improve each step of working; have skills in management, teamworking and systematic working, and have creative thinking; have characteristics and habits of work that show diligence, patience, responsibility and honesty; have manners and an awareness of the need to use water and electricity economically and cost-effectively

- Understand meaning and evolution of technology and elements of the technological system; have ideas for solving problems or responding to diverse needs; apply knowledge and skills in constructing work pieces to make objects and utensils safely according to their interests by using technological processes, i.e., identify problems or needs, collect data, design by conveying ideas through a three-dimensional sketch or mind map, construct and evaluate; choose to apply technologies creatively in daily life for life and society, and manage technologies through transformation and recycling

- Understand basic principles of problems-solving; are skilful in utilising computers to search for data, store data, prepare graphics, document and present data, and construct work pieces with awareness and responsibility
- Know and understand about occupations as well as have knowledge, capacity and morality related to occupations

Structuring Class Time
Learning Area of Occupations

Grade	Time		Total
	Core courses	Selective courses	
Grade1	40	-	40
Grade2	40	-	40
Grade3	40	-	40
Grade4	80	-	80
Grade5	80	-	80
Grade6	80	-	80
Total	360	-	360

Structuring Class Time
Learning Area of Occupations

Grade	Year			
	Subject	Credit	hour./Week	Hour/ year
	Basic Strands			
Grade1	Occupations	1	1	40
Grade2	Occupations	1	1	40
Grade3	Occupations	1	1	40
Grade4	Occupations	2	2	40
Grade5	Occupations	2	2	40
Grade6	Occupations	2	2	40

Strand 1: Living and Family

Standard O1.1: Understanding of concept of work; endowment with creativity and skills for various aspects and work processes, management, teamwork, investigation for seeking knowledge, morality, diligence, and awareness of the need to economise on the use of energy and the environment for one's life and for family

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Tell methods of working for self-help. 2. Use simple materials, instruments and equipment in working safely. 3. Work for self- help with enthusiasm and punctuality.	1. Tell methods and benefits of working to help themselves and their families. 2. Economically use materials, instruments and equipment suitable to the type of work. 3. Work safely to help themselves and their families.	1. Tell methods and benefits of working to help themselves, their families and the public. 2. Use materials, instruments and equipment as required for various types of work. 3. Work in stages as required by the work process, paying attention to cleanliness, carefulness and conservation of the environment.	1. Explain the reasons for working to reach goals. 2. Work in stages to reach goals with diligence, patience, responsibility and honesty. 3. Conduct themselves with good manners when working. 4. Economically and cost-effectively use and energy and resources in working.	1. Explain the reasons for working correctly at each stage required by the work process. 2. Apply management skills in systemic, refined and creative work. 3. Conduct themselves with good manners when working with family members. 4. Have an awareness of the economical and cost-effective use of energy and resources.	1. Discuss the guidelines for working and improving each stage of work. 2. Apply management and teamwork skills. 3. Conduct themselves with good manners when working with family members and others.

Strand 2: Occupation

Standard O2.1: Understanding and acquisition of necessary skills and experiences; proper perception of future career; technological application for occupational development; endowment with morality and favourable attitude towards occupations

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	-	-	1. Explain the meaning and importance of occupations.	1. Collect data about various occupations in the community. 2. Specify differences between occupations.	1. Explore themselves to plan to choose occupations. 2. Specify knowledge, capacities and morality relevant to occupations of interest.

Strand Content standards and Grade-level Indicators

Grade1

Strand 1: Living and Family

Standard O1.1: Understanding of concept of work; endowment with creativity and skills for various aspects and work processes, management, teamwork, investigation for seeking knowledge, morality, diligence, and awareness of the need to economise on the use of energy and the environment for one's life and for family

Grade	Strand	Content
Grade1	1. Tell methods of working for self-help.	<ul style="list-style-type: none">- Meaning of housework- Meaning of clothes and uniforms- Doing housework to benefit yourself- Benefits of doing housework and clothes and uniforms- Clothes and uniforms in everyday life- Getting dressed by yourself
	2. Use simple materials, instruments and equipment in working safely.	<ul style="list-style-type: none">- Use simple materials, instruments and equipment in working safely- Meaning and benefits of food and nutrition- Cooking utensils and kitchen appliances- Types of agriculture- Caring for plants- Tools for your skilled work- Types of skilled work
	3. Work for self- help with enthusiasm and punctuality.	<ul style="list-style-type: none">- Handcrafts, origami toys

		<ul style="list-style-type: none"> - Work for self- help with enthusiasm and punctuality on time for their work
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Course description

Occupation

Learning Area of Occupations

Grade1

Time 40 hours

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Tell methods of working for self-help. Ex. Housework, clothes and uniforms, getting dressed by yourself. Use simple materials, instruments and equipment in working safely Ex. Cooking utensils and kitchen appliances, types of agriculture, Caring for plants, types of skilled work. Work for self- help with enthusiasm and punctuality.

For their have knowledge Understanding of work, problem solving process, collaboration skills and seeking knowledge skill. Have moral, good behavior for working, on Time, enthusiasm and punctuality.

Total 3 Strands

1. Tell methods of working for self-help.
2. Use simple materials, instruments and equipment in working safely.
3. Work for self- help with enthusiasm and punctuality.

Structuring Class Time

Learning Area of Occupations

Occupations

Learning Area of Occupations

Grade 1

Time 40 Hours

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
1.	Housework	Standard 1.1: Gr.1/1 Gr.1/2 Gr.1/3	- Meaning of housework - Doing housework to benefit yourself - Benefits of doing housework	6	10
2	Clothes and Uniforms	Standard 1.1: Gr.1/1 Gr.1/2 Gr.1/3	- Meaning of clothes and uniforms - Clothes and uniforms in everyday life - Getting dressed by yourself - Benefits of clothes and uniforms	6	10
3	Food and Nutrition	Standard 1.1: Gr.1/1 Gr.1/2 Gr.1/3	- Meaning and benefits of food and nutrition - cooking	7	20
4	Agriculture	Standard 1.1: Gr.1/1 Gr.1/2 Gr.1/3	- Meaning and importance of agriculture - Types of agriculture - using agricultural products - caring for plants	7	10
5	Skilled work	Standard 1.1: Gr.1/1 Gr.1/2 Gr.1/3	- Meaning and importance of skilled work - Types of skilled work -Tools for your skilled- work	7	20
6.	Handcrafts	Standard 1.1:	- Types of handcrafts	7	30

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
		Gr.1/1 Gr.1/2 Gr.1/3	- Benefits of handcrafts - Meaning of handcrafts - Origami toys		
	Total all year / Scoring			40	100

Strand Content standards and Grade-level Indicators

Grade2

Strand 1: Living and Family

Standard O1.1: Understanding of concept of work; endowment with creativity and skills for various aspects and work processes, management, teamwork, investigation for seeking knowledge, morality, diligence, and awareness of the need to economise on the use of energy and the environment for one's life and for family

Grade	Strand	Content
Grade2	1. Tell methods and benefits of working to help themselves and their families.	<ul style="list-style-type: none">- Meaning and benefit of housework- Roles and responsibilities of family members- Washing up utensils- sweeping the floor- dressing for school- storing clothes and shoes- preparing fruit and vegetables for use- helping your family in the kitchen
	2. Economically use materials, instruments and equipment suitable to the type of work.	<ul style="list-style-type: none">- seeding-caring for seeding-using tools for skilled work- Making toys- creativity- making toys using a design process- safe use of tools for skilled work- designing appliances in everyday life- Making personal appliances
	3. Work safely to help themselves and their families.	<ul style="list-style-type: none">- Safely and good behavior to work.

Course description

Occupation

Learning Area of Occupations

Grade2

Time 40 hours

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Tell methods and benefits of working to help themselves and their families. For example, roles and responsibilities of family members, washing up utensils, preparing fruit and vegetables for use, helping your family in the kitchen. Economically use materials, instruments and equipment suitable to the type of work. For example, using tools for skilled work, making toys, safe use of tools for skilled work, designing appliances in everyday life and they can have work safely to help themselves and their families.

For their have knowledge Understanding of work, problem solving process, Collaboration skills and seeking knowledge skill. Have moral, good behavior for working, on time, enthusiasm and punctuality.

Total 3 Strands

1. Tell methods and benefits of working to help themselves and their families.
2. Economically use materials, instruments and equipment suitable to the type of work.
3. Work safely to help themselves and their families.

Structuring Class Time
Learning Area of Occupations

Occupations

Learning Area of Occupations

Grade 2

Time 40 Hours

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
1.	Housework	Standard 1.1: Gr.2/1 Gr.2/2 Gr.2/3	- meaning and benefit of houses work - roles and responsibilities of family members - washing up utensils after meals - sweeping the floor	6	10
2	Clothes and Uniforms	Standard 1.1: Gr.2/1 Gr.2/2 Gr.2/3	- dressing for school - storing clothes and shoes	6	10
3	Food and Nutrition	Standard 1.1: Gr.2/1 Gr.2/2 Gr.2/3	- preparing fruit and vegetables for use - helping your family in the kitchen	7	20
4	Agriculture	Standard 1.1: Gr.2/1 Gr.2/2 Gr.2/3	- seeding - caring for seeding	7	10
5	Skilled work	Standard 1.1: Gr.2/1 Gr.2/2 Gr.2/3	- using tools for skilled work - making toys, creativity - making toys using a design process - safe use of tools for skilled work	7	20
6.	Handcrafts	Standard 1.1: Gr.2/1	- designing appliances in everyday life	7	30

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
		Gr.2/2 Gr.2/3	- making personal appliances		
	Total all year/Scoring			40	100

Strand Content standards and Grade-level Indicators

Grade3

Strand 1: Living and Family

Standard O1.1: Understanding of concept of work; endowment with creativity and skills for various aspects and work processes, management, teamwork, investigation for seeking knowledge, morality, diligence, and awareness of the need to economise on the use of energy and the environment for one's life and for family

Grade	Strand	Content
Grade3	1. Tell methods and benefits of working to help themselves, their families and the public.	<ul style="list-style-type: none">- working for one self- working for the public-working for your family- selective use of clothes- simple clothing repair- knowledge of cooking- keeping food
	2. Use materials, instruments and equipment as required for various types of work.	<ul style="list-style-type: none">- growing homegrown vegetables- maintaining toys and repairing belongings-meaning and types of handcrafts benefits of making hand crafts and utensils by using local materials.- tools and equipment for making handcrafts- process of making handcrafts- local materials- making handcrafts by using simple materials
	3. Work in stages as required by the work process, paying attention to cleanliness, carefulness and conservation of the environment	- Work in stages as required by the work process, paying attention to cleanliness, carefulness and conservation of the environment good behavior to work.

Course description

Occupation

Learning Area of Occupations

Grade3

Time 40 hours

.....

Tell methods and benefits of working to help themselves, their families and the public. Example: working for one self, public, family, selective use of clothes, and simple clothing repair. Use materials, instruments and equipment as required for various types of work. Example: growing homegrown vegetables, maintaining toys and repairing belongings

-meaning and types of handcrafts benefits of making hand crafts and utensils by using local materials, tools and equipment for making handcrafts, making handcrafts by using simple materials. Work in stages as required by the work process, paying attention to cleanliness, carefulness and conservation of the environment good behavior to work.

For their have knowledge Understanding of work, problem solving process, collaboration skills and seeking knowledge skill. Have moral, good behavior for working, on time, enthusiasm and punctuality.

Total 3 Strands

1. Tell methods and benefits of working to help themselves, their families and the public.
2. Use materials, instruments and equipment as required for various types of work.
3. Work in stages as required by the work process, paying attention to cleanliness, carefulness and conservation of the environment

Structuring Class Time
Learning Area of Occupations

Occupations

Learning Area of Occupations

Grade 3

Time 40 Hours

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
1.	Housework	Standard 1.1: Gr.3/1 Gr.3/2 Gr.3/3	- working for oneself - working for the public - working for your family	6	10
2	Clothes and Apparel	Standard 1.1: Gr.3/1 Gr.3/2 Gr.3/3	- selective use of clothes - simple clothing repair	6	10
3	Food and Nutrition	Standard 1.1: Gr.3/1 Gr.3/2 Gr.3/3	- knowledge of cooking - keeping food	7	20
4	Agriculture	Standard 1.1: Gr.3/1 Gr.3/2 Gr.3/3	- growing homegrown vegetables	7	10
5	Skilled work	Standard 1.1: Gr.3/1 Gr.3/2 Gr.3/3	- maintaining toys and repairing belongings	7	20
6.	Handcrafts	Standard 1.1: Gr.3/1 Gr.3/2 Gr.3/3	- meaning and types of handcrafts - local materials - making handcrafts by using simple materials - process of making handcrafts	7	30

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
			<ul style="list-style-type: none"> - benefits of making hand crafts and utensils by using local materials - tools and equipment for making handcrafts 		
	Total all year/Scoring			40	100

Strand Content standards and Grade-level Indicators

Grade4

Strand 1: Living and Family

Standard O1.1: Understanding of concept of work; endowment with creativity and skills for various aspects and work processes, management, teamwork, investigation for seeking knowledge, morality, diligence, and awareness of the need to economise on the use of energy and the environment for one's life and for family

Grade	Strand	Content
Grade4	1. Explain the reasons for working to reach goals.	<ul style="list-style-type: none">- caring for yourself and your body- good manners and effective use of energy and resources- keeping your things tidy- good manners- removing stains on clothes- mending clothes
	2. Work in stages to reach goals with diligence, patience, responsibility and honesty.	<ul style="list-style-type: none">- diligent, patient, responsible, honest, moral at work
	3. Conduct themselves with good manners when working.	<ul style="list-style-type: none">- cooking food- Table manners
	4. Economically and cost-effectively use and energy and resources in working.	<ul style="list-style-type: none">- procedures for repairing equipment, tools, and appliances- safety when repairing equipment, tools, and appliances- examples of repairing equipment, tools, and appliances- benefits of repairing equipment, tools, and appliances-The importance of handcrafts- handcrafting process

Strand 2: Occupation

Standard O2.1: Understanding and acquisition of necessary skills and experiences; proper perception of future career; technological application for occupational development; endowment with morality and favourable attitude towards occupations

Grade	Strand	Content
Grade4	1. Explain the meaning and importance of occupations.	<ul style="list-style-type: none">- keeping personal documents- meaning and importance of jobs

Course description

Occupation

Learning Area of Occupations

Grade4

Time 40 Hours

.....

Explain the reasons for working to reach goals. Example caring for yourself and your body, good manners and effective use of energy and resources, keeping your things tidy, removing stains on clothes, mending clothes. Work in stages to reach goals with diligence, patience, responsibility and honesty. Conduct themselves with good manners when working. Economically and cost-effectively use and energy and resources in working.

For their have knowledge Understanding of work, problem solving process, collaboration skills and seeking knowledge skill. Have moral, good behavior for working, on time, enthusiasm and punctuality. There have diligent, patient, responsible, honest, and moral at work. Spending the energy and resource good attitude for work.

Total 5 Strands

1. Explain the reasons for working to reach goals.
2. Work in stages to reach goals with diligence, patience, responsibility and honesty.
3. Conduct themselves with good manners when working.
4. Economically and cost-effectively use and energy and resources in working.
5. Explain the meaning and importance of occupations.

Structuring Class Time

Learning Area of Occupations

Occupations

Learning Area of Occupations

Grade 4

Time 40 Hours

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
1.	Housework	Standard 1.1: Gr.4/1 Gr.4/2 Gr.4/3	- caring for yourself and your body - good manners and effective use of energy and resources - keeping your things tidy - good manners	5	10
2	Clothes and Apparel	Standard 1.1: Gr.4/1 Gr.4/2 Gr.4/3	- removing stains on clothes - mending clothes	5	10
3	Food and Nutrition	Standard 1.1: Gr.4/1 Gr.4/2 Gr.4/3	- cooking food - table manners	5	10
4	Agriculture	Standard 1.1: Gr.4/1 Gr.4/2 Gr.4/3	- meaning of growing garden plants - types of garden plants - example of growing garden plants -tools and equipment for growing garden plants - benefits of growing garden plants	5	10
5	Skilled work	Standard 1.1: Gr.4/1 Gr.4/2 Gr.4/3	- procedures for repairing equipment ,tools, and appliances - examples of repairing equipment, tools, and appliances	5	20

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
			<ul style="list-style-type: none"> - safety when repairing equipment, tools, and appliances - benefits of repairing equipment ,tools, and appliances 		
6.	Handcrafts	Standard 2.1: Gr.4/1	<ul style="list-style-type: none"> - the importance of handcrafts - handcrafting process - basic principles of handcrafts - handcrafting appliances and accessories by using banana leaves - making appliances and accessories from paper 	7	20
7.	Business and jobs	Standard 2.1: Gr.4/1	<ul style="list-style-type: none"> - keeping personal documents - meaning and importance of jobs 	8	20
	Total all year / Scoring			40	100

Strand Content standards and Grade-level Indicators

Grade5

Strand 1: Living and Family

Standard O1.1: Understanding of concept of work; endowment with creativity and skills for various aspects and work processes, management, teamwork, investigation for seeking knowledge, morality, diligence, and awareness of the need to economise on the use of energy and the environment for one's life and for family

Grade	Strand	Content
Grade5	1. Explain the reasons for working correctly at each stage required by the work process	<ul style="list-style-type: none">- working with family members- ironing clothes- collecting and folding clothes- washing and drying clothes- the meaning and importance of maintaining clothes- repairing clothes
	2. Apply management skills in systemic, refined and creative work	<ul style="list-style-type: none">- buying good quality foods and drinks- planting
	3. Conduct themselves with good manners when working with family members	<ul style="list-style-type: none">- repairing appliances in the household- knowledge about how appliances work
	4. Have an awareness of the economical and cost-effective use of energy and resources	

Strand 2: Occupation

Standard O2.1: Understanding and acquisition of necessary skills and experiences; proper perception of future career; technological application for occupational development; endowment with morality and favourable attitude towards occupations

Grade	Strand	Content
Grade5	1. Collect data about various occupations in the community.	- handcrafting appliances and decorations from leftover local materials
	2. Specify differences between occupations.	<ul style="list-style-type: none">- household accounting- storing important documents- maintaining personal family, and public property

Course description

Occupation

Learning Area of Occupations

Grade5

Time 40 hours

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Explain the reasons for working correctly at each stage required by the work process. For example: washing and drying clothes, repairing clothes. Apply management skills in systemic, refined and creative work. For example: buying good quality foods and drinks. Conduct themselves with good manners when working with family members. Have an awareness of the economical and cost-effective use of energy and resources. Collect data about various occupations in the community. Specify differences between occupations. For example: household accounting, storing important documents, maintaining personal family, and public property.

For their have knowledge Understanding of work, problem solving process, collaboration skills and seeking knowledge skill. Have moral, good behavior for working, on time, enthusiasm and punctuality. There have diligent, patient, responsible, honest, and moral at work. Spending the energy and resource good attitude for work.

Total 6 Strands

1. Explain the reasons for working correctly at each stage required by the work process
2. Apply management skills in systemic, refined and creative work
3. Conduct themselves with good manners when working with family members
4. Have an awareness of the economical and cost-effective use of energy and resources
5. Collect data about various occupations in the community.
6. Specify differences between occupations.

Structuring Class Time
Learning Area of Occupations

Occupations

Learning Area of Occupations

Grade 5

Time 40 hours

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
1.	Housework	Standard1.1: Gr5/1 Gr.5/2 Gr.5/3	- working with family members - doing housework correctly	5	5
2	Clothes	Standard1.1: Gr5/1 Gr.5/2 Gr.5/3	- ironing clothes - collecting and folding clothes - the meaning and importance of maintaining clothes - repairing clothes - washing and drying clothes	5	5
3	Food and Nutrition	Standard1.1: Gr5/1	- buying good quality foods and drinks	5	10
4	Agriculture	Standard1.1: Gr.5/2	- planting	5	20
5	Skilled work	Standard1.1: Gr5/1 Gr.5/2 Gr.5/3	- repairing appliances in the household - knowledge about how appliances work	5	10
6.	Technology	Standard1.1: Gr5/1 Gr.5/2	- knowledge about clean technology	4	10

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
		Gr.5/3	- basic knowledge about technology		
7.	handcrafts	Standard2.1: Gr5/1 Gr.5/2	- handcrafting appliances and decorations from leftover local materials	4	10
8	Business	Standard 2.1: Gr5/1 Gr.5/2	- household accounting - storing important documents - maintaining personal, family ,and public property	4	20
9	Careers in the community	Standard 2.1: Gr5/1 Gr.5/2	- careers in a community - things to think about when choosing a career - the meaning of careers - the importance of careers in the community	3	10
	Total all year / Scoring			40	100

Strand Content standards and Grade-level Indicators

Grade 6

Strand 1: Living and Family

Standard O1.1: Understanding of concept of work; endowment with creativity and skills for various aspects and work processes, management, teamwork, investigation for seeking knowledge, morality, diligence, and awareness of the need to economise on the use of energy and the environment for one's life and for family

Grade	Strand	Content
Grade6	1. Discuss the guidelines for working and improving each stage of work.	<ul style="list-style-type: none">- maintenance of household property- working with family members- repairing clothes by mending and darning
	2. Apply management and teamwork skills.	<ul style="list-style-type: none">- making meals for family members- preparing and cooking food
	3. Conduct themselves with good manners when working with family members and others.	<ul style="list-style-type: none">- raising ornamental fishes- installing and assembling household appliances

Strand 2: Occupation

Standard O2.1: Understanding and acquisition of necessary skills and experiences; proper perception of future career; technological application for occupational development; endowment with morality and favourable attitude towards occupations

Grade	Strand	Content
Grade6	1. Explore themselves to plan to choose occupations.	<ul style="list-style-type: none">- meaning of careers- types of careers
	2. Specify knowledge, capacities and morality relevant to occupations of interest.	<ul style="list-style-type: none">- morality in working- self –analysis

Course description

Occupation

Learning Area of Occupations

Grade 6

Time 40 hours

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Discuss the guidelines for working and improving each stage of work. For example, maintenance of household property, working with family members, repairing clothes by mending and darning. Apply management and teamwork skills. For example, making meals for family members, preparing and cooking food. Conduct themselves with good manners when working with family members and others. Explore themselves to plan to choose occupations. Specify knowledge, capacities and morality relevant to occupations of interest.

For their have knowledge Understanding of work, problem solving process, collaboration skills and seeking knowledge skill. Have moral, good behavior for working, on time, enthusiasm and punctuality. There have diligent, patient, responsible, honest, and moral at work. Spending the energy and resource good attitude for work.

Total 5 Strands

1. Discuss the guidelines for working and improving each stage of work.
2. Apply management and teamwork skills.
3. Conduct themselves with good manners when working with family members and others.
4. Explore themselves to plan to choose occupations
5. Specify knowledge, capacities and morality relevant to occupations of interest.

Structuring Class Time
Learning Area of Occupations

Occupations

Learning Area of Occupations

Grade 6

Time 40 hours

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
1.	Housework	Standard 1.1: Gr6/1 Gr.6/2 Gr.6/3	- maintenance of household Property - working with family members	5	10
2	Clothes	Standard1.1: Gr6/1 Gr.6/2 Gr.6/3	- repairing clothes by mending and draining	5	10
3	Food and Nutrition	Standard 1.1: Gr6/1 Gr.6/2 Gr.6/3	- making meals for family members - preparing and cooing food	5	10
4	Agriculture	Standard1.1: Gr6/1 Gr.6/2 Gr.6/3	- raising ornamental	5	10
5	Skilled work	Standard1.1: Gr6/1 Gr.6/2 Gr.6/3	- Installing and assembling household appliances	5	20
6.	Business	Standard 2.1: Gr6/1 Gr.6/2	- recording revenues and expenses - storing financial documents	5	20
7.	carrers	Standard 2.1: Gr6/1	- meaning of careers - types of careers	10	20

No.	Unit	Learning standards/ Indicators	Strands	Time (Hour)	Scoring
		Gr.6/2	- morality in working - self- analysis		
	Total all year / Scoring			40	100

Learning Area of Arts

Why it is necessary to learn arts

The learning area of arts helps to develop creativity in learners, who will have artistic imagination, appreciate beauty, have aesthetics and worthiness, which affect the quality of human lives. Artistic activities help to develop learners in various respects— physical, mental, intellectual, emotional and social, as well as lead to environmental development. Artistic activities strengthen self-confidence in learners, thus providing a foundation for future education or livelihood.

What is learned in arts

The learning area of arts is aimed at developing knowledge and understanding in learners, enabling them to acquire artistic skills and techniques, and to appreciate artistic value. This provides them with opportunities to freely express themselves in various branches of arts. The main contents include:

- **Visual Arts:** knowledge and understanding of composition of art, visual elements; ability to create and present works of visual arts from imagination by being able to use appropriate instruments as well as artistic techniques and methods for efficiently creating works of art; ability to analyse and criticise value of works of visual art; understanding of the relationship between visual arts, history and culture; appreciation of value of works of art representing cultural heritage, local wisdom, Thai and universal wisdom; delight in art and apply in daily life

- **Music:** knowledge and understanding of composition of music; ability to express themselves freely through music, analyse and criticise value of music and convey feelings freely through music; delight in music and apply in daily life; appreciation of the relationship between music, history and culture; appreciation of music representing cultural heritage, local wisdom, Thai and universal wisdom; ability to sing and play various forms of music, express opinions about musical sounds, express aesthetic feelings about music and understand the relationship between music, tradition, culture and historical events

- **Dramatic Arts:** knowledge and understanding of composition of dramatic arts; ability to creatively express themselves through dramatic arts, use basic vocabulary of dramatic arts, analyse and criticise values of dramatic arts, convey feelings and thoughts freely, create various forms of movement and apply dramatic arts in daily life; understanding of the relationship between dramatic arts, history and culture; appreciation of values of dramatic arts representing cultural heritage, local wisdom, Thai and universal wisdom

Learners' Quality

Grade 3 graduates

- Know and understand about shapes, forms and distinguish visual elements of various things in nature, the environment and works visual art; have basic skills in using materials and instruments in creating paintings in colour by using lines, shapes, forms, colours and surfaces; are able to create collages, sculptures and simple mobiles; convey thoughts and feelings from stories, incidents and real life; create works of arts in accord with their predilection; are able to show reasons and methods for improving their own work
- Know and understand the importance of works of visual art in daily life, sources of works of visual art in the local area as well as know how to use materials, instruments and methods of creating works of visual art in the local area
- Know and understand origins of sound and properties of sound; know and understand roles, functions, meanings and importance of the songs heard around them; are able to recite verses, sing songs, beat time and attune body movements to songs; read, write and use symbols instead of sounds and beat time; express opinions about music and their own singing; participate in musical activities in daily life
- Know and understand unique characteristics of local music; delight in and recognise importance and benefits of music in the lifestyles of the local people

- Create various forms of movement; are able to perform musical callisthenics based on styles of dramatic art; have good manners in viewing performances; know the roles of the performers and the audience; know benefits of performance of dramatic arts in daily life; participate in performances suitable to their age

- Know and understand Thai children's games and local dramatic arts; find delight and pride in folk games; are able to link what they see in folk games with the Thai way of life; are able to tell outstanding features and unique characteristics of Thai dramatic arts as well as importance of the performance of Thai dramatic arts

Grade 6 graduates

- Know and understand utilisation of visual elements, shapes, forms, light and shadow; have basic skills in utilising materials and instruments, conveying thoughts, emotions and feelings; are able to apply principles for arranging size, proportion, balance, weight, light and shadow as well as utilise complementary colours suitable for creating two-dimensional and three-dimensional works of visual art, e.g., works of mixed media, paintings, sculptures and lithographs, as well as able to draw diagrams, plans and illustrations for portraying thoughts and imagination about various incidents, and able to compare differences of materials, instruments and methods between works; understand problems of arranging artistic elements, principles of subtraction and addition in sculptures, conveying meaning of their own works of visual art; know methods of improving their work as well as know and appreciate the value of works of visual art in people's lives in society

- Know and understand the roles of works of visual art reflecting life and society, and the influences of religious belief, faith and culture affecting creation of works of visual art in the area

- Know and understand about musical sounds, singing voices and musical instruments, and their roles and functions; know the up and down movements of melodies, composition of music, musical terms in songs, lines and emotions of the

songs heard; sing and play a musical instrument; do simple improvisations; use and maintain musical instruments properly; read and write Thai and international music scores in various forms; know characteristics of would-be good musicians; express opinions about musical elements; convey feelings of the songs heard; able to use music to accompany activities relating to dramatic arts and story-telling

- Know and understand the relationship between music and way of life, tradition, Thai and other cultures, stories about music in history and the influence of culture on music; appreciate the value of music from different cultures; recognise the importance of conservation

- Know and understand composition of dramatic arts; are able to present laban notations and basic dance vocabulary; create simple movements and performances of dramatic art and theatrical work; convey styles or emotions and are able to design simple costumes or props; understand the relationship between dramatic arts and theatrical work and what they encounter in daily life; express opinions upon viewing performances and describe their own feelings about works of dramatic art

- Know and understand relationship and benefits of dramatic arts and theatrical work; are able to compare various kinds of Thai performances in each local area and things that reflect culture and tradition; appreciate value of conservation and transmission of performances of Thai dramatic art

Strand 1: Visual Arts

Standard A1.1: Creation of works of visual art through imagination and creativity; analysis and criticism of value of works of visual art through free expression of feelings and thoughts; appreciation and application in daily life

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<ol style="list-style-type: none"> 1. Discuss forms, characteristics and sizes of man-made products and things around them in nature. 2. Tell feelings about nature and their surroundings. 3. Have basic skills in using materials and instruments to create works of visual art. 4. Create works of visual art by experimenting with the use of colours 	<ol style="list-style-type: none"> 1. Describe forms and shapes found in nature and the environment. 2. Specify visual elements in the environment and works of visual art with emphases on lines, colours, forms and shapes. 3. Create various works of visual art by using visual elements with emphases on lines and forms. 4. Have basic skills in using materials and 	<ol style="list-style-type: none"> 1. Describe forms and shapes in nature, the environment and works of visual art. 2. Specify materials and instruments utilised in creating the works when viewing works of visual art. 3. Distinguish visual elements of various things in nature, the environment and works of visual art with emphases on lines, colours, forms, shapes and surfaces. 	<ol style="list-style-type: none"> 1. Compare characteristics of forms and shapes in nature, the environment and works of visual art. 2. Discuss influences of warm hues and cool hues on human emotions. 3. Distinguish visual elements of various things in nature, the environment and works of visual art with emphases on lines, colours, forms, 	<ol style="list-style-type: none"> 1. Describe the rhythms and positions of various things seen in the environment and works of visual art. 2. Compare differences between works of visual art created with different materials, instruments and methods. 3. Paint pictures by applying techniques of light and shadow, weight and hues. 4. Create sculptures from plasticine or 	<ol style="list-style-type: none"> 1. Specify complementary colours and discuss the use of complementary colours to convey thoughts and feelings. 2. Explain principles of arranging size, proportion and balance in creating works of visual art. 3. Create works of visual art with two dimensions to three dimensions by

Grade level indicators

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<p>through simple techniques.</p> <p>5. Paint landscapes from their own feelings.</p>	<p>instruments to create three-dimensional works of visual art.</p>	<p>4. Paint pictures of objects around them.</p> <p>5. Have basic skills in utilising materials and instruments to create sculptures.</p> <p>6. Draw pictures to convey thoughts and feelings from incidents in real life by using forms, shapes, colours and surfaces.</p> <p>7. Describe reasons and methods for creating works of visual art with emphases on techniques, materials and instruments.</p>	<p>shapes, surfaces and blank space.</p> <p>4. Have basic skills in utilising materials and instruments to create sculptures.</p> <p>5. Have basic skills in utilising materials and instruments to create paintings.</p> <p>6. Describe characteristics of the paintings with emphases on arranging distance, depth, weight and light and shadow in the paintings.</p>	<p>clay with emphasis on conveying imagination.</p> <p>5. Create lithographs with emphasis on arranging positions of various objects in the pictures.</p>	<p>applying principles of light and shadow and weight.</p> <p>4. Create sculptures by applying principles of addition and subtraction.</p> <p>5. Create works of visual art by applying principles of forms and blank space.</p> <p>6. Create works of visual art by using complementary colours, and principles of arranging size, proportion and balance</p>

Grade level indicators

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	<p>5. Create collages by cutting or tearing paper.</p> <p>6. Draw pictures to convey stories about their own families and those of their neighbours.</p> <p>7. Collect works of visual art and describe what they see, including contents and relevant stories.</p> <p>8. Create works of visual art in the form of mobiles.</p>	<p>8. Specify what is admired and what should be improved in their own works of visual art.</p> <p>9. Specify and classify pictures based on the visual elements highlighted in particular works of visual art.</p> <p>10. Describe characteristics, forms and shapes in the work of designing various objects at home and in school.</p>	<p>7. Paint pictures using warm hues and cool hues to convey feelings and imagination.</p> <p>8. Compare thoughts and feelings conveyed through their own and others' works of visual art.</p> <p>9. Choose to use hues to convey emotions and feelings in creating works of visual art.</p>	<p>6. Specify problems in arranging artistic elements and conveying meaning in their own works of visual arts, and tell methods of improvement.</p> <p>7. Describe benefits and value of works of visual art to human life in society.</p>	<p>7. Create works of visual art in the form of diagrams, plans and illustrations to convey thoughts or stories about various incidents.</p>

Strand 1: Visual Arts

Standard A1.2: Understanding of relationship between visual arts, history and culture; appreciation for works of visual art that represent cultural heritage, local wisdom, and Thai and universal wisdom

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Specify works of visual art in daily life.	1. Tell the importance of works of visual art seen in daily life. 2. Discuss various types of works of visual art in the local area with emphases on methods of creating the works and the materials and instruments utilised.	1. Tell about sources of works of visual art in the local area. 2. Explain about the materials, instruments and methods of creating works of visual art in the local area.	1. Specify and discuss works of visual art in events and celebrations of local culture. 2. Describe works of visual art from various cultures.	1. Specify and describe characteristics and forms of works of visual art in learning resources or art exhibitions. 2. Discuss works of visual art reflecting culture and wisdom in the local area.	1. Describe the roles of works of visual art reflecting life and society. 2. Discuss the influences of religious beliefs and faiths on works of visual art in the local area. 3. Specify and describe local cultural influences on creation of personal works of visual art.

Strand 2: Music

Standard A2.1: Understanding of and capacity for creative self-expression through music; analysis and criticism of value of music; free conveyance of feelings and thoughts about music; appreciation and application in daily life

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Know that various things can produce different sounds. 2. Tell characteristics of loud and soft sounds and pace of rhythm. 3. Recite verses and sing simple songs. 4. Participate in musical activities with enjoyment. 5. Tell relevance of songs used in daily life.	1. Distinguish sources of sounds heard. 2. Distinguish properties of high-pitched and low-pitched, loud and soft and long and short sounds of music. 3. Beat time or move their bodies in atonements to contents of the songs. 4. Sing simple songs suitable to their age. 5. Tell the meaning and importance of songs heard.	1. Tell the forms and characteristics of the musical instruments seen and heard in daily life. 2. Utilize pictures or symbols to represent sounds and beat. 3. Tell the roles and functions of the songs heard. 4. Sing and play simple music. 5. Move their bodies in atonement to	1. Tell simple lines of music. 2. Distinguish types of musical instruments played in the songs heard. 3. Specify directions of simple up-and-down movements of the tune, form, beat and tempo of the songs heard. 4. Read and write Thai and international music scores.	1. Specify musical elements of songs utilised to convey emotions. 2. Distinguish characteristics of sounds of singing and musical instruments in various types of orchestras. 3. Read and write 5 scales of Thai and international music scores.	1. Describe the songs heard by availing of musical elements and musical vocabulary. 2. Distinguish types, roles and functions of Thai musical instruments and instruments from other cultures. 3. Read and write Thai and international music scores of simple tunes. 4. Utilise musical instruments to

Grade level indicators

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
		<p>emotions of the songs heard.</p> <p>6. Express opinions about their own and others' music and singing.</p> <p>7. Apply music in daily life or other occasions appropriately</p>	<p>5. Sing songs by using pitches suitable to their age.</p> <p>6. Utilise and keep musical instruments correctly and safely.</p> <p>7. Specify that music can be availed of for communicating stories.</p>	<p>4. Use musical instruments to make rhythm and melody.</p> <p>5. Sing Thai or international songs or modern Thai songs suitable to their age.</p> <p>6. Make simple improvisations by using lines of question-and-answer type.</p> <p>7. Use music together with activities in expressing themselves from imagination.</p>	<p>accompany improvised singing with simple beats and tunes.</p> <p>5. Describe their feelings towards music.</p> <p>6. Express opinions about tune, beat, voice harmony and sound quality of the songs heard.</p>

Strand 2: Music

Standard A2.2: Understanding of relationship between music, history and culture; appreciation of musical works that represent cultural heritage, local wisdom, and Thai and universal wisdom

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Tell about local music. 2. Specify what they admire in local music.	1. Tell the relationship of sounds of singing and those of musical instruments in local songs by using simple words. 2. Perform and participate in local musical activities.	1. Specify outstanding characteristics and unique features of local music. 2. Specify the importance and benefits of music to the lives of the local people.	1. Tell the sources and relationships of Thai way of life reflected in local music and songs. 2. Specify the importance of conserving and promoting musical culture.	1. Explain the relationship between music and tradition in various cultures. 2. Explain the value of music from different cultures.	1. Explain the stories of Thai music in history. 2. Distinguish music from different periods. 3. Discuss the influence of culture on local music.

Strand 3: Dramatic Arts

Standard A3.1: Understanding and creative self-expression through dramatic arts; analysis and criticism about value of dramatic arts; free expression of feelings and thoughts; appreciation and application in daily life

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Imitate movements. 2. Show simple gestures to communicate meanings instead of words. 3. Tell what they like from viewing or participating in performances.	1. Move while remaining in the same place and while moving about. 2. Show movements that freely reflect their own emotions. 3. Show gestures to communicate meanings instead of words. 4. Creatively perform calisthenics. 5. Specify manners in viewing performances.	1. Create various forms of movement in short situations. 2. Show musical calisthenics based on forms of dramatic arts. 3. Compare the roles and duties of performers and audiences. 4. Participate in activities of performances suitable to their age. 5. Tell the benefits of dramatic arts in daily life.	1. Specify basic skills in dramatic arts and theatrical work that are applied to communicate meanings and emotions. 2. Use laba notation and dance vocabulary or simple theatre vocabulary in conveying stories. 3. Show movements in various beats	1. Describe elements of dramatic arts. 2. Show gestures in attunement to songs or stories based on their own thoughts. 3. Perform dramatic arts with emphasis on application of laba notation and dance vocabulary in communicating meaning and in self-expression.	1. Create movements and performances with emphasis on conveying styles or emotions. 2. Design simple costumes or props. 3. Show simple dramatic arts and theatrical work. 4. Describe their own creative feelings for dramatic arts and theatrical work.

Grade level indicators

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
			<p>based on their own thoughts.</p> <p>4. Show performances of dramatic arts in duos or in groups.</p> <p>5. Tell what they admire in a performance with emphasis on the main points of the story and outstanding features of the characters.</p>	<p>4. Participate in groups writing story lines or short plays.</p> <p>5. Compare different shows of dramatic art performances.</p> <p>6. Tell the benefits obtained from viewing performances.</p>	<p>5. Express opinions in viewing performances.</p> <p>6. Explain the relationship between dramatic arts and theatrical work in what they encounter in daily life.</p>

Strand 3: Dramatic Arts

Standard A3.2: Understanding of relationship between dramatic arts, history and culture; appreciation of the value of dramatic arts that represent cultural heritage, local wisdom and Thai and universal wisdom

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Specify and play Thai children's games. 2. Tell what they like in performances of Thai dramatic arts.	1. Specify and play folk games. 2. Link what they see in folk games with what they see in the lifestyle of Thai people. 3. Specify what they admire and are proud of in folk games.	1. Tell about the performances of dramatic arts that they have viewed in the local area. 2. Specify outstanding characteristics and unique features of performances of dramatic arts. 3. Explain the importance of performances of dramatic arts.	1. Explain the history of dramatic arts or simple shows or performances. 2. Compare performances of dramatic arts with those from other cultures. 3. Explain the importance of paying respect in learning and performing dramatic arts.	1. Compare various types of Thai performances in the local area. 2. Specify or perform dramatic arts and folk dramatic arts reflecting culture and tradition.	1. Explain about things that are important to performances of dramatic arts and theatrical work. 2. Specify the benefits obtained from performances or viewing performances of dramatic arts and plays.

Grade level indicators

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
			4. Specify the reasons for conserving and transmitting performances of dramatic arts.		

Learning Assessment

Learning assessment must be based on two fundamental principles, i.e., evaluation for the purpose of developing the learners' capacity and for appraising their achievements. With a view to succeeding in developing the learners' learning quality, learners must be strengthened and assessed by availing of the relevant indicators, so as to achieve the learning standards prescribed. Such evaluation also reflects the learners' major capacities and their desirable characteristics, which are the main goals of measuring and evaluating the learning outcomes at all levels, i.e., classroom level, educational institution level, educational service area level, and national level. Learning assessment is a process of enhancing the learners' quality by using assessment results as data and information to show learners' developmental progress and accomplishment. The data will also be useful for strengthening the learners, thus enabling them to learn to their highest potentiality.

As already mentioned, learning assessment can be divided into four levels, i.e., classroom level, educational institution level, educational service area level and national level, details of which are as follow.

1. Classroom assessment

Measurement and evaluation are part of the learning process. Teachers regularly and continuously measure and evaluate students' performance in teaching-learning activities by using diverse assessment techniques, e.g., asking questions, observing, examining homework, assessing projects, tasks/assignments and portfolios, and using written tests, etc. Teachers will conduct evaluations themselves or provide learners with opportunities for self-evaluation, peer-to-peer evaluation, and evaluation by parents. Learners who do not succeed in meeting the standards prescribed in the indicators will need remedial measures for teaching and learning.

Classroom assessment is aimed at verifying whether and to what extent learners have achieved development and progress in learning through the provided teaching-learning activities, and determining what must be improved and which areas must be strengthened. Furthermore, evaluation also provides teachers with necessary data for improving their own performance, which must be in accord with the established learning standards and indicators.

2. School assessment

This evaluation is conducted by the educational institution in order to appraise the learners' achievements on an annual/semester basis, based on assessment of reading, analytical thinking and writing, desirable characteristics, and learner development activities. The aim is also to obtain relevant information about whether education provided by the educational institution has enabled learners to reach their goals of learning, and what are the learners' strengths. The learning outcomes can also be compared with national assessment criteria. School assessment will provide data and information for improving policy, curriculum, projects and teaching-learning methodology. Evaluation outcomes are also useful for preparation of each educational institution's educational quality development plan in accord with the educational quality assurance guidelines, as well as reports on each educational institution's achievement to its school board, the office of the educational service area, OBEC, parents and the community.

3. Local assessment

Evaluation is conducted in order to assess learners' quality at educational service area level, based on the learning standards prescribed in the Basic Education Core Curriculum. It is aimed at obtaining basic information required for developing quality of education provided by the educational service area as mandated. Evaluation of the learners' achievements can be conducted by availing of standard examination papers prepared and administrated by the educational service area or in cooperation with the parent agency. Besides, assessment results are also obtained from verification and review of the data obtained from evaluation at educational institution level in the educational service area.

4. National test

Evaluation is conducted in order to assess learners' quality at national level, based on the learning standards prescribed in the Basic Education Core Curriculum. Educational institutions are required to arrange for assessment of all students in Grades 3, 6, 9 and 12. The evaluation results will provide relevant data for comparing educational quality at different levels, which will be useful for planning in order to raise the quality of education provided. The data obtained will also support decision-making at national policy level.

The data from evaluation at the various levels mentioned above will be useful to educational institutions for checking, reviewing and developing learners' quality. It is incumbent upon the educational institutions to establish a system for providing necessary care and assistance, remedial measures, and encouragement and support in order to allow learners to develop themselves to their highest potentiality. Such development will be based on individual differences, depending on their particular problems and needs. The various groups include average achievers, the gifted and talented, under-achievers, those with disciplinary and behavioural problems, those who refuse schooling, those with economic and social problems, and those with physical and intellectual disabilities, etc. The data

obtained from the evaluation therefore will provide essential information to the educational institutions for providing timely assistance to learners, who are thus allowed to enjoy full development and learning achievement.

Being responsible for educational provision, educational institutions are required to prepare relevant rules and regulations for measurement and evaluation of the learning outcomes, harmonious and in accord with the criteria and guidelines prescribed in the Basic Education Core Curriculum, thus providing a common and standard practice for all concerned.

Criteria for Learning Assessment

1. Judging, grading and reporting on learning outcomes

1.1 Judging learning outcomes

In judging the learning outcomes of various subject areas, reading, analytical thinking and writing, desirable characteristics and learner development activities, the teachers must base their judgement on development of individual learners. Teachers are required to regularly and continuously collect the learners' data in all respects for each semester, as well as provide remedial measures, enabling learners to develop to their highest potentiality.

Primary education level

(1) Learners must have an attendance record of not less than 80% of the total learning time requirement;

(2) Learners must be assessed on all indicators and must pass the criteria prescribed by the educational institutions;

(3) Learners must be judged on the learning outcomes of each course

(4) Learners must be evaluated and must pass all the criteria prescribed by the educational institutions regarding reading, analytical thinking and writing, desirable characteristics and learner development activities.

Regarding consideration of transition to next grade for both primary and secondary education levels, if learners have minor deficiencies which, in the view of the educational institutions, can be corrected and further developed with remedial measures, the educational institutions have the discretion to allow them to move to a higher grade. If, however, the learners have failed in many courses, and are likely to face problems in proceeding to a higher grade, the educational institutions can establish a committee to consider the possibility of repeating the year, with particular attention paid to the learners' maturity, knowledge and capacity.

1.2 Grading learning outcomes

Primary education level

In judging for the purpose of grading learning outcomes of each course, educational institutions can grade the level of learners' learning outcomes or the quality level of their performance by using numerical, alphabetical, and percentage systems or a system that uses key words to indicate the standard attained.

For assessment of reading, analytical thinking and writing, and desirable characteristics, the grading levels are: Excellent, Good Pass and Fail.

For assessment of learner development activities, consideration must be given to the amount of time devoted, and the participation and achievement of learners in accord with the criteria prescribed by the educational institutions. The outcomes of the participation are graded as: Pass and Fail.

1.3 Reporting on learning outcomes

Reporting on learning outcomes is a means of communicating to parents and learners the latter's progress of achievement. Educational institutions are required to summarise the assessment outcomes and prepare written reports for

submission for the parents' information on a periodical basis or at least once every semester.

Reporting on learning outcomes can indicate quality level of learners' performance, which reflects the standard of achievement for the various learning areas.

2. Criteria of graduation

The Basic Education Core Curriculum prescribes general criteria for graduation at three educational levels, i.e., primary, lower secondary, and upper secondary education levels.

Graduation criteria for primary education level

(1) Learners have completed basic courses and supplementary courses/activities in accord with the learning time structure as prescribed in the Basic Education Core Curriculum;

(2) Learners' assessment outcomes for each basic course must meet the criteria prescribed by the respective educational institutions;

(3) Learners' assessment outcomes regarding reading, analytical thinking, and writing must meet the criteria prescribed by the respective educational institutions;

(4) Learners' assessment outcomes regarding desirable characteristics must meet the criteria prescribed by the respective educational institutions; and

(5) Learners have participated in learner development activities and the assessment outcomes of their participation meet the criteria set by the respective educational institutions. **Documents**

Showing Evidence of Education

Documents showing evidence of education are highly important, as they record the learning outcomes, data and information on various aspects of learners' development. These documents are divided into two categories as follow.

1. Documents showing evidence of education prescribed by the Ministry of Education

1.1 **Record of learning outcomes** shows and certifies learners' achievement, based on assessment outcomes of the various courses, reading, analytical thinking and writing and desirable characteristics required by the educational institutions as well as learner development activities. Educational institutions are required to record relevant data and issue such documents to individual learners upon their graduation at primary education level (Grade 6) or any other cases of school-leaving.

1.2 **Certificate** shows the learners' qualifications, certifying their achievements and rights. Educational institutions are responsible for issuing certificates to graduates of compulsory education and basic education as prescribed in the Basic Education Core Curriculum.

1.3 **Report on graduates** shows authorisation of graduation by recording the names and relevant data of graduates at primary education level (Grade 6)

2. Documents showing evidence of education prescribed by educational institutions

Educational institutions are required to prepare documents in order to keep record of learners' development, learning outcomes and essential data. These documents include a student's personal record, grade record for each course, cumulative record, learning outcome certificate and other documents required for specific purposes.

Transfer of Learning Outcomes

Educational institutions can transfer learners' learning outcomes in various cases, e.g., moving to another educational institution, change of type of education, course transfer, drop-out and request for continuing in-country education received abroad. Besides, knowledge, skills and experiences attained from other learning sources can also be transferred e.g. enterprise, religious institution, occupational training institution, home school etc.

Transfer of learning outcomes should be made before the beginning of the first semester or during the first semester at educational institutions that admit the transferred learners. The latter are required to study at the educational institutions for at least one semester. These educational institutions should decide on the courses/number of credits to be transferred as appropriate.

For the purpose of transfer, the following should be taken into consideration:

1. Certificates and other documents providing information on the learners' knowledge and capacity;
2. Learners' knowledge and capacity tested through various methods for assessment of both knowledge and capacity for practical work; and
3. Competence and performance in real situations.

Transfer of learning outcomes must follow the Ministry of Education's proclamations or guidelines. The transfer of learning outcomes at basic education level must follow the guidelines on transfer of learning outcomes at basic education level.

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หลักสูตรสถานศึกษา

โรงเรียนบ้านอนุบาลแม่สาย(สายศิลปศาสตร์)

พุทธศักราช ๒๕๖๗

ตามหลักสูตรแกนกลางการศึกษาขั้นพื้นฐาน พ.ศ.๒๕๕๑