



# หลักสูตรสถานศึกษา

ห้องเรียนภาษาอังกฤษเข้ม (IEC)

Intensive English Course

ตามหลักสูตรแกนกลางการศึกษาขั้นพื้นฐาน 2551

โรงเรียนอนุบาลแม่สาย(สายศิลปศาสตร์)  
สำนักงานเขตพื้นที่การศึกษาประถมศึกษาเชียงราย เขต 3  
กระทรวงศึกษาธิการ



## Introduction

Courses for educational institutions, foreign language learning subjects, additional learning subjects, listening Reading and speaking English (Listening Reading and Speak English) of AnubanMae Sai (Saisinlapasat) School 2023 edition is an educational curriculum of the school created by using the core curriculum of basic education B.E. 2008 of the Ministry of Education as the center of preparation with the aim of developing competence Learners' English. Management of language teaching Intensive English Course, it focuses on developing learners' potential in using the four English skills, namely listening, speaking, reading and writing skills, so that learners have confidence in using English. For communication can use English in the pursuit of knowledge correctly as well as having the ability to use international languages for the ASEAN Community and develop the quality of learners to be good people, smart people, have a good quality of life, live happily in society on the basis of Thai culture and universality students can choose to study according to their interests, abilities, and aptitudes for further study and future careers. Curriculum of educational institutions for additional learning, listening, reading and speaking English (Listening Reading and Speak English) Intensive English Course.

AnubanMaesai(Saisinlapasat) School has set the expected learning outcomes and time structure. This is a guideline for the preparation of handbooks and supporting documents for teaching and learning to help teachers and teachers can manage teaching and learning effectively and those involved have knowledge and understanding of school education management as shown in the National Education Act, B.E.2008

Mr. Preecha      Kawichai

Director of AnubanMaesai (Saisinlapasat) School

## Vision

The curriculum of AnubanMaesai (Saisinlapasat) School revised 2025 aims to develop all learners which is the power of the nation to be a human being with balance in terms of body, knowledge, morality, and consciousness of being a Thai citizen and being a citizen of the world Adhering to the democratic regime of government with the King , basic knowledge and skills, including attitudes necessary for further education Career and lifelong education by organizing the learning process into thinking Raise awareness of local and environmental conservation. ICT readiness, being a good person under the principles of sufficiency economy alongside the community on the basis of educational development.

## 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 neighboring 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 favorable 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, 253 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; categorizes words according to the types of persons, animals and objects about which they have heard or read 254

- 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 skillful 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 255
- 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 skillful 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

**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 level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<p>1. Act in compliance with simple orders heard.</p> <p>2. Specify the alphabet and sounds; accurately pronounce and spell simple words by observing principles of reading.</p> <p>3. Choose the pictures corresponding to the meanings of words and groups of words heard.</p> <p>4. Answer questions from listening to matters around them.</p>	<p>1. Act in compliance with orders and simple requests heard.</p> <p>2. Specify the alphabet and sounds; pronounce and spell words; accurately read simple sentences by observing the principles of reading.</p> <p>3. Choose the pictures corresponding to the meanings of words, groups of words and sentences heard.</p>	<p>1. Act in compliance with orders and requests heard or read.</p> <p>2. Pronounce and spell words; accurately read aloud groups of words, sentences and simple chants by observing the principles of reading.</p> <p>3. Choose/ specify the images or symbols corresponding to the meanings of groups of words and sentences heard.</p>	<p>1. Act in compliance with orders, requests and simple instructions heard or read.</p> <p>2. Pronounce and spell words; accurately read aloud groups of words, sentences, simple texts and chants by observing the principles of reading.</p> <p>3. Choose/ specify the pictures or symbols or signs corresponding to the meanings of sentences and short texts heard or read</p>	<p>1. Act in compliance with orders, requests and simple instructions heard and read.</p> <p>2. Accurately read aloud sentences, texts and short poems by observing the principles of reading.</p> <p>3. Specify/draw the symbols or signs corresponding to the meanings of sentences and short texts heard or read.</p>	<p>1. Act in compliance with orders, requests and instructions heard and read.</p> <p>2. Accurately read aloud texts, tales and short poems by observing the principles of reading.</p> <p>3. Choose/specify the sentences or short texts corresponding to the meanings of symbols or signs read.</p>

**Strand 1: Language for Communication**

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

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<p>1. Act in compliance with simple orders heard.</p> <p>2. Specify the alphabet and sounds; accurately pronounce and spell simple words by observing principles of reading.</p> <p>3. Choose the pictures corresponding to the meanings of words and groups of words heard.</p> <p>4. Answer questions from listening to matters around them.</p>	<p>1. Act in compliance with orders and simple requests heard.</p> <p>2. Specify the alphabet and sounds; pronounce and spell words; accurately read simple sentences by observing the principles of reading.</p> <p>3. Choose the pictures corresponding to the meanings of words, groups of words and sentences heard.</p>	<p>1. Act in compliance with orders and requests heard or read. 2. Pronounce and spell words; accurately read aloud groups of words, sentences and simple chants by observing the principles of reading. 3. Choose/ specify the images or symbols corresponding to the meanings of groups of words and sentences heard.</p>	<p>1. Act in compliance with orders, requests and simple instructions heard or read. 2. Pronounce and spell words; accurately read aloud groups of words, sentences, simple texts and chants by observing the principles of reading. 3. Choose/ specify the pictures or symbols or signs corresponding to the meanings of sentences and short texts heard or read</p>	<p>1. Act in compliance with orders, requests and simple instructions heard and read. 2. Accurately read aloud texts, tales and short poems by observing the principles of reading. 3. Specify/draw the symbols or signs corresponding to the meanings of sentences and short texts heard or read.</p>	<p>1. Act in compliance with orders, requests and instructions heard and read. 2. Accurately read aloud texts, tales and short poems by observing the principles of reading. 3. Choose/specify the sentences or short texts corresponding to the meanings of symbols or signs read.</p>



Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
	4. Answer questions from listening to sentences, dialogues or simple tales with illustrations.	4. Answer questions from listening to or reading sentences, dialogues or simple tales.	4. Answer questions from listening to and reading sentences, dialogues and simple tales.	4. Tell the main points and answer questions from listening to and reading dialogues and simple tales or short texts	4. Tell the main idea and answer questions from listening to and reading dialogues, simple tales and stories.

## 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

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Speak in an exchange with short and simple words in interpersonal communication by following the models heard. 2. Use simple orders by following the models heard. 3. Express their own simple needs by following the models heard. 4. Speak to ask for and give simple data about themselves by following the models heard	1. Speak in an exchange with short and simple words in interpersonal communication by following the models heard. 2. Use orders and simple requests by following the models heard. 3. Express their own simple needs by following the models heard. 4. Speak to ask for and give simple data about themselves by following the models heard.	1. Speak in an exchange with short and simple words in interpersonal communication by following the models heard. 2. Use orders and simple requests by following the models heard. 3. Express their own simple needs by following the models heard. 4. Speak to ask for and give simple data about themselves and their friends by following the models heard.	1. Speak/write in an exchange in interpersonal communication. 2. Use orders, requests and simple requests for permission. 3. Speak/write to express their own needs and to ask for help in simple situations. 4. Speak/write to ask for and give data about themselves, their friends and families.	1. Speak/write in an exchange in interpersonal communication. 2. Use orders and requests for permission and give simple instructions. 3. Speak/write to express needs, ask for help and agree and refuse to give help in simple situations. 4. Speak/write to give help in simple situations. 4. Speak/write to ask for and give data about themselves, their friends, families and matters around them.	1. Speak/write in an exchange in interpersonal communication. 2. Use orders requests and give instructions. 3. Speak/write to express needs, ask for help and agree and refuse to give help in simple situations. 4. Speak and write to ask for and give data about themselves, their friends, families and matters around them.



**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

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	-	5. Tell their own feelings about various objects around them or various activities by following the models heard.	5. Speak to express their own feelings about various matters around them and various activities by following the models heard.	5. Speak/write to express their own feelings about various matters around them and various activities, as well as provide brief justifications.	5. Speak/write to express their own feelings about various matters around them and various activities, as well as provide brief justifications.



**Strand 1: Language for Communication**

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

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Speak to give data about themselves and matters around them	1. Speak to give data about themselves and matters around them.	1. Speak to give data about themselves and matters around them. 2. Categories words into groups according to the types of persons, animals and objects based on what they have heard or read.	1. Speak/write to give data about themselves and matters around them. 2. Speak/draw pictures to show relationships of various objects around them according to what they have heard or read. 3. Speak to express simple opinions about matters around them.	1. Speak/write to give data about themselves and matters around them. 2. Draw pictures, plans and charts to show various data heard or read. 3. Speak/write to express opinions about various matters around them	1. Speak/write to give data about themselves, their friends and the environment around them. 2. Draw pictures, plans, charts and tables to show various data heard or read. 3. Speak/write to express opinions about various matters 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 level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Speak and make accompanying gestures in accordance with the culture of native speakers. 2. Tell the names and vocabulary of native speakers' important festivals. 3. Participate in language and cultural activities appropriate to their age levels.	1. Speak and make accompanying gestures in accordance with the culture of native speakers. 2. Tell the names and vocabulary of native speakers' important festivals. 3. Participate in language and cultural activities appropriate to their age levels.	1. Speak and make accompanying gestures in accordance with social manners/ culture of native speakers. 2. Tell the names and simple vocabulary about the festivals/ important days/ celebrations and lifestyles of native speakers. 3. Participate in language and cultural activities appropriate to their age levels.	1. Speak and politely make accompanying gestures in accordance with social manners and culture of native speakers. 2. Answer questions about festivals/ important days/ celebrations and simple lifestyles of native speakers. 3. Participate in language and cultural activities appropriate to their age levels.	1. Use words, tone of voice and polite gestures in accordance with social manners and culture of native speakers. 2. Answer questions/ tell the importance of festivals/ important days/ celebrations and simple lifestyles of native speakers. 3. Participate in language and cultural activities in accordance with their interests.	1. Use words, tone of voice, gestures and manners politely and appropriately by observing the social manners and culture of native speakers. 2. Give data about the festivals/ important days/ celebrations/ lifestyles of native speakers. 3. Participate in language and cultural activities in accordance with their interests.

**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

Grade level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Specify the alphabet and sounds of the alphabet of foreign languages and Thai language.	1. Specify the alphabet and sounds of the alphabet of foreign languages and Thai language.	1. Tell differences of the sounds of the alphabet, words, groups of words and simple sentences in foreign languages and Thai language.	1. Tell differences of the sounds of the alphabet, words, groups of words, sentences and texts in foreign languages and Thai language. 2. Tell the similarities/differences between the festivals and celebrations in the culture of native speakers and those in Thailand.	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. 2. Tell the similarities/differences between the festivals and celebrations of native speakers and those of Thais.	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. 2. Compare the differences/similarities between the festivals, celebrations and traditions of native speakers and those of Thais.

### 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 level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Tell the terms related to other learning areas.	1. Tell the terms related to other learning areas.	1. Tell the terms related to other learning areas.	1. Search for and collect the terms related to other learning areas, and present them through speaking/ writing	1. Search for and collect the terms related to other learning areas, and present them through speaking/ writing	1. Search for and collect the terms related to other learning areas from learning sources, and present them through speaking/ writing.

**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 level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Listen/speak in simple situations in the classroom.	1. Listen/speak in simple situations in the classroom	1. Listen/speak in simple situations in the classroom.	1. Listen and speak in situations in the classroom and in school.	1. Listen, speak and read/write in various situations in the classroom and in school.	1. Use language for communication in various situations in the classroom and in school.

**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 level indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1. Use foreign languages to collect relevant terms around them.	1. Use foreign languages to collect relevant terms around them.	1. Use foreign languages to collect relevant terms around them.	1. Use foreign languages to search for and collect various data.	1. Use foreign languages to search for collect various data.	1. Use foreign languages to search for and collect various data.

# หลักสูตรสถานศึกษา

ห้องเรียนภาษาอังกฤษเข้ม (IEC)

โรงเรียนอนุบาลแม่สาย (สายศิลปศาสตร์)

Time structure of basic education courses at Anuban Maesai (Saisinlapasat) School



โครงสร้างเวลาเรียนหลักสูตรสถานศึกษาขั้นพื้นฐาน โรงเรียนอนุบาลแม่สาย (สายศิลปศาสตร์)

ตามหลักสูตรแกนกลางการศึกษาขั้นพื้นฐาน พุทธศักราช 2551 (ปรับปรุง พ.ศ. 2560)

ปีการศึกษา 2568 ห้องเรียน Intensive English Course (IEC)

กลุ่มสาระการเรียนรู้/ กิจกรรม	เวลาเรียน/ จำนวนชั่วโมง/ ปี					
	ระดับประถมศึกษา					
	ป. 1	ป. 2	ป. 3	ป. 4	ป. 5	ป. 5
<b>สาระพื้นฐาน</b>						
ภาษาไทย	ท11101	ท12101	ท13101	ท14101	ท15101	ท16101
	200	200	200	160	160	160
คณิตศาสตร์	ค11101	ค12101	ค13101	ค14101	ค15101	ค16101
	200	200	200	160	160	160
วิทยาศาสตร์และเทคโนโลยี	ว11101	ว12101	ว13101	ว14101	ว15101	ว16101
	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
สุขศึกษาและพลศึกษา	พ11101	พ12101	พ13101	พ14101	พ15101	พ16101
	40	40	40	40	40	40
ศิลปะ	ศ11101	ศ12101	ศ13101	ศ14101	ศ15101	ศ16101
	40	40	40	40	40	40
การงานอาชีพ	ง11101	ง12101	ง13101	ง14101	ง15101	ง16101
	40	40	40	40	40	40
ภาษาอังกฤษ	อ11101	อ12101	อ13101	อ14101	อ15101	อ16101
	160	160	160	200	200	200
<b>รวมเวลาเรียน (พื้นฐาน)</b>	<b>840</b>	<b>840</b>	<b>840</b>	<b>840</b>	<b>840</b>	<b>840</b>
<b>สาระเพิ่มเติม</b>						
Communicative English	อ11201	อ12201	อ13201	อ14201	อ15201	อ16201
	80	80	80	80	80	80
Mathematics	ค11202	ค12202	ค13202	ค14202	ค15202	ค16202
	40	40	40	40	40	40
Science	ว11202	ว12202	ว13202	ว14202	ว15202	ว16202
	40	40	40	40	40	40
ภาษาจีน	จ11201	จ12201	จ13201	จ14201	จ15201	จ16201
	40	40	40	40	40	40
โครงงานเทคโนโลยี (IS)	IS11201	IS12201	IS13201	IS14201	IS15201	IS16201
	40	40	40	40	40	40
<b>รวมเวลาเรียน (เพิ่มเติม)</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>

กลุ่มสาระการเรียนรู้/ กิจกรรม	เวลาเรียน/ จำนวนชั่วโมง/ ปี					
	ระดับประถมศึกษา					
	ป. 1	ป. 2	ป. 3	ป. 4	ป. 5	ป. 5
กิจกรรมพัฒนาผู้เรียน						
กิจกรรมแนะแนว	40	40	40	40	40	40
กิจกรรมนักเรียน ลูกเสือ/ ยุวกาชาด	30	30	30	30	30	30
กิจกรรมนักเรียน ชมรม/ ชุมนุม	40	40	40	40	40	40
กิจกรรมเพื่อสังคมและสาธารณประโยชน์	10	10	10	10	10	10
<b>รวมเวลาเรียนกิจกรรมพัฒนาผู้เรียน</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>120</b>
<b>รวมเวลาเรียนทั้งหมด</b>	<b>1,200</b>	<b>1,200</b>	<b>1,200</b>	<b>1,200</b>	<b>1,200</b>	<b>1,200</b>

หมายเหตุ การเรียนการสอนหน้าที่พลเมืองบูรณาการกับการเรียนรู้ในกลุ่มสาระการเรียนรู้สังคมศึกษา

## Course Description

### E11201 English

### Area of Foreign Language

#### Grade 1

#### 80 hours

Students know and understand about English language. They should be able to interact with other using short and easy conversations, in which they will learn the phrases used in greeting, leave taking, thanking, apologizing, as well as introducing themselves. They should be able to specify the alphabets and sounds accurately; pronounce and spell simple words fluently. Students should be able to identify the objects, meaning of words; Color, choose pictures and give the meaning of objects in a house, classroom and school. Use vocabularies, sentences, simple grammar structure to ask and answer the question from listening, express their wishes and give information about themselves. Students should be able to identify sequence and speak about the activities in their daily lives, use language to communicate accurately following native speakers' culture and way of life; and tell the words about the native speakers' festival, important days and activities which are suitable to their age. They should be able to explain and use English language in related to other learning areas. The most important thing is that the students have good attitude to use English language as basic tools for further education, livelihood and exchange of learning with the world community.

The above objectives should be reached through group activities to strengthen their understanding and communication skills.

Expected Outcome	Yearly Contents
1. Students should be able to interact with other using short and simple expression. (FL 1.1 G.1/1)	Dialogues used in greeting, leave-taking expressing thank, introducing oneself and apologizing e.g. Hi / Hello!/ Good morning/ Good afternoon/ Good evening/ Goodbye/ Thank you/ I'm sorry, etc.
2. Students should be able to identify the objects, meaning of words. (FL 1.1 G.1/2)	Color, choose picture and give the meaning of objects in a house, classroom and school, etc.
3. Students should be able to answer the question from listening and give the question in the same items. (FL 1.1 G.1/3)	Ask and answer the simple question e.g. Who/ What/ Where/ When/ Why/ How/ What's this? This is...../ What color .... / How many....? There is/ are one. Two, three,.....

Expected Outcome	Yearly Contents
4.Students should be able to use simple grammar correctly. (FL 1.2 G.1/1)	Asking, answering, speaking simple sentence e.g. I am.../ You are.../ She /He is.../Yes, I am./ No, I am not.
5.Students should be able to give instruction and follow simple direction. (FL 1.2 G.1/2)	Speaking vocabularies, phrase, sentence to express one's wisher such as 'What do you want?/ What do you like?/ like or dislike/ Please, etc.
6.Students should be able to ask for and give information about themselves (FL 1.3 G.1/1)	Vocabularies, phrase, sentence for giving information about oneself and matter around them e.g. My name is .../ I have.../ The dog has a long tail./ big, small, etc.
7. Students should be able to use language to communicate accurately following native speakers' culture and way of life and tell the words about the native speakers' festival, important days and activities which are suitable to their age. (FL 2.1 G.1/1)	Vocabularies, speak and act on the right way in English language/ cultural and important things such as Christmas' Day/ Birthday's Party/ hamburger, pizza, etc.
8. Students should be able to specify the alphabets and sounds accurately pronounce and spell simple words fluently. (FL 2.2 G.1/1)	Speaking, reading and spelling words about things around them e.g. number, color, part of body, family member, animal, food and classroom objects, etc.
9. Students should be able to explain and use English language in related to other learning areas. (FL 3.1 G.1/1)	Reading, writing and speaking vocabularies in related to other subjects e.g. Math...plus/minus/ Art...color/ paint/ Music...singing; and computer.
10. Students should be able to identify sequence and speak about the activities in their daily lives. (FL 4.1 G.1/1)	Talking about activities, situations, events at home/ at school, etc.
11. Students have good attitude to use English language as basic tools for further education, livelihood and exchange of learning with the world community. (FL 4.2 G.1/1)	Love to use English language by listening, reading and speaking in their lives.



**Expected outcomes**

FL 1.1 G.1/1, G.1/2, G.1/3

FL 1.2 G.1/1, G.1/2

FL 1.3 G.1/1

FL 2.1 G.1/1

FL 2.2 G.1/1

FL 3.1 G.1/1

FL 4.1 G.1/1

FL 4.2 G.1/1

Total : 11 Expected outcomes



## Learning Time Structure

### Grade 1 : 80 hours

No.	Unit	Learning Outcomes	Objectives	Time (period)	Score (point)
1	Unit 1 Hello!	FL 1.1 G.1/1,G.1/2,G.1/3 FL 1.2 G.1/1 FL 1.3 G.1/1 FL 2.2 G.1/1	-To greet someone -To introduce oneself and inquire about one's name - To count (1-10)	8	7
2	Unit 2 School	FL 1.1 G.1/1,G.1/2,G.1/3 FL 1.2 G.1/1 FL 1.3 G.1/1 FL 2.2 G.1/1 FL 4.1 G.1/1	-To identify colors -To identify and talk about classroom objects	8	7
3	Unit 3 Family and Friends	FL 1.1 G.1/1,G.1/2,G.1/3 FL 1.2 G.1/1 FL 1.3 G.1/1 FL 2.2 G.1/1 FL 4.1 G.1/1	-To identify and talk about family members and friends -To identify and talk about pets	8	7
4	Unit 4 You and Me	FL 1.1 G.1/1,G.1/2,G.1/3 FL 1.2 G.1/1 FL 1.3 G.1/1 FL 2.2 G.1/1	-To count (11-15) -To ask and answer about somebody's age -To talk about feelings -To talk about physical appearance	8	7

No.	Unit	Learning Outcomes	Objectives	Time (period)	Score (point)
5	Unit 5 Party Time	FL 1.1 G.1/1,G.1/2,G.1/3 FL 1.2 G.1/1 FL 1.3 G.1/1 FL 2.2 G.1/1 FL 4.2 G.1/1	-To talk about quantity -To identify and talk about party items -To identify and talk about colors	8	7
6	Unit 6 Toys and Games	FL 1.1 G.1/1,G.1/2,G.1/3 FL 1.2 G.1/1 FL 1.3 G.1/1 FL 2.2 G.1/1 FL 4.2 G.1/1	-To give and follow simple instructions -To identify and talk about toys -To talk about possession	8	7
7	Unit 7 My Body	FL 1.1 G.1/1,G.1/2,G.1/3 FL 1.2 G.1/1 FL 1.3 G.1/1 FL 2.2 G.1/1 FL 4.2 G.1/1	-To give and follow simple instructions -To identify and talk about parts of the body -To describe physical appearance	8	7
8	Unit 8 Food	FL 1.1 G.1/1,G.1/2,G.1/3 FL 1.2 G.1/2 FL 2.1 G.1/1 FL 2.2 G.1/1 FL 4.2 G.1/1	-To identify and talk about food -To talk about likes and dislike -To ask for something politely -To thank	8	7



No.	Unit	Learning Outcomes	Objectives	Time (period)	Score (point)
9	Unit 9 My House	FL 1.1 G.1/1,G.1/2,G.1/3 FL 2.2 G.1/1 FL 1.3 G.1/1 FL 4.1 G.1/1 FL 4.2 G.1/1	-To identify and talk about rooms in a house -To describe location -To identify furniture -To describe one’s house/ bedroom -To identify and talk about clothes	8	7
10	Unit 10 Places	FL 1.1 G.1/1,G.1/2,G.1/3 FL 1.2 G.1/2 FL 1.3 G.1/1 FL 2.2 G.1/1 FL 4.1 G.1/1 FL 4.2 G.1/1	- To identify and talk about places in a town - To identify and talk about zoo animals - To count (16-20)	8	7
		Mid Term & Final Exam		2	30
	Total			80	100

## Course Description

**E12201 English**

**Area of Foreign Language**

**Grade 2**

**80 hours**

Students know and understand about English language. They should be able to act in compliance with orders and simple requests heard. Specify the alphabet and sounds; pronounce and spell words; accurately read simple sentences by observing the principles of reading. Choose the pictures corresponding to the meanings of words, groups of words and sentences heard. Answer questions from listening to sentences, dialogues or simple tales with illustrations. Speak in an exchange with short and simple words in interpersonal communication by following the models heard. Use simple orders by following the models heard. Express their own simple needs by following the models heard. Speak to ask for and give simple data about themselves by following the models heard. Speak to give data about themselves and matters around them. Speak and make accompanying gestures in accordance with the culture of native speakers. Tell the names and vocabulary of native speakers' important festivals. Participate in language and cultural activities appropriate to their age levels. Specify the alphabet and sounds of the alphabet of foreign languages and 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.

The above objectives should be reached through group activities to strengthen their understanding and communication skills.

Expected Outcome	Yearly Contents
1. Students should be able to act in compliance with orders and simple requests heard. (FL 1.1 G.2/1)	Commands and requests: - 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.

Expected Outcome	Yearly Contents
2. Students should be able to specify the alphabet and sounds; pronounce and spell words; accurately read simple sentences by observing the principles of reading. (FL 1.1 G.2/2)	Letters consonants and vowels sound/spelling/ sentences and reading - pronouncing first & final sounds - words and group of words stress - Sentence intonation
3. Students should be able to answer questions from listening to sentences, dialogues or simple tales with illustrations. (FL 1.1 G.2/4)	Sentences/dialogues/ stories with illustrations. The interrogatives and answers -Yes/No Questions -Wh-Questions: What/ Where/How many
4. Students should be able to speak in an exchange with short and simple words in interpersonal communication by following the models heard. (FL 1.2 G.2/1)	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
5. Students should be able to speak to ask for and give simple data about themselves by following the models heard. (FL 1.2 G.2/4)	Words, idioms and sentences about personal information : What is your name? My name is..... I am .... How are you? I am fine. How old are you? I am eight. etc.
6. Students should be able to speak to give data about themselves and matters around them. (FL 1.3 G.2/1)	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
7. Students should be able to speak and make accompanying gestures in accordance with the culture of native speakers. (FL 2.1 G.2/1)	The culture of native speakers like: using body language while speaking to introduce oneself hand shaking/ waving accepting or denying
8. Students should be able to tell the names and vocabulary of native speakers' important festivals. (FL 2.1 G.2/2)	Vocabularies about important festivals of the native speakers like Christmas, New Year, Valentine's
9. Students should be able to tell the terms related to other learning areas. (FL 3.1 G.2/1)	Vocabularies related with other learning groups



Expected Outcome	Yearly Contents
10. Students should be able to listen/speak in simple situations in the classroom. (FL 4.1 G.2/1)	Using language to listen and speak in simply situations happening in the classroom
11. Students should be able to use foreign languages to collect relevant terms around them. (FL 4.2 G.2/1)	Using foreign languages to collect relevant terms around them from the media

**Expected outcomes** FL 1.1 G.2/1, G.2/2, G.2/4      FL 1.2 G.2/1, G.2/4      FL 1.3 G.2/1  
 FL 2.1 G.2/1, G.2/2  
 FL 3.1 G.2/1  
 FL 4.1 G.2/1      FL 4.2 G.2/1  
 Total : 11 Expected outcomes



## Learning Time Structure

**Grade 2 : 80 hours**

No.	Unit	Time (period)	Score (point)
1	Unit 1 We're back!	8	7
2	Unit 2 Home and family	8	7
3	Unit 3 Friends	8	7
4	Unit 4 Animals	8	7
5	Unit 5 My town	8	7
6	Unit 6 My favorite food	8	7
7	Unit 7 On time	8	7
8	Unit 8 At work	8	7
9	Unit 9 Clothes	8	7
10	Unit 10 Having fun	8	7
	Mid Term & Final Exam	2	30
Total		80	100

## Course Description

**E13201 English**

**Area of Foreign Language**

**Grade 3**

**80 hours**

Students know and understand about English language. They should be able to act in compliance with orders and requests heard or read. Pronounce and spell words; accurately read aloud groups of words, sentences and simple chants by observing the principles of reading. Choose/ specify the images or symbols corresponding to the meanings of groups of words and sentences heard. Answer questions from listening to or reading sentences, dialogues or simple tales. Speak in an exchange with short and simple words in interpersonal communication by following the models heard. by following the models heard. Tell their own feelings about various objects around them or various activities by following the models heard. Speak to give data about themselves and matters around them. Speak and make accompanying gestures in accordance with social manners/ culture of native speakers. Tell differences of the sounds of the alphabet, words, groups of words and simple sentences in foreign languages and Thai language. Tell the names and simple vocabulary about the festivals/ important days/ celebrations and lifestyles of native speakers. Participate in language and cultural activities appropriate to their age levels. Categorise words into groups according to the types of persons, animals and objects based on what they have heard or read. Use orders and simple requests by following the models heard. Express their own simple needs by following the models heard. Speak to ask for and give simple data about themselves and their friends 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.

The above objectives should be reached through group activities to strengthen their understanding and communication skills.

Expected Outcome	Yearly Contents
1. Act in compliance with orders and requests heard or read. (FL 1.1 G.3/1)	Classroom commands and requests: <ul style="list-style-type: none"><li>- Give me a/an..../ draw and color the pictures./ put a/an ...in/on/under a/an.../Don't eat in class etc.</li><li>- Please take a queue./Can you help me ,please? etc.</li></ul>

Expected Outcome	Yearly Contents
2. Pronounce and spell words; accurately read aloud groups of words, sentences and simple chants by observing the principles of reading. (FL 1.1 G.3/2)	Words/ group of words/ chants and spelling Dictionary using Reading based on principles of pronunciation: <ul style="list-style-type: none"> <li>- Pronouncing first and final sounds</li> <li>- Words/group of words stress</li> <li>- Sentence intonation</li> </ul>
3. Answer questions from listening to or reading sentences, dialogues or simple tales. (FL 1.1 G.3/4)	Sentences/dialogues/ stories with illustrations. The interrogatives and answers: <ul style="list-style-type: none"> <li>-Yes/No Questions Is/Are/Can.....? Yes,...is/are/can. No,...isn't/aren't/can't. etc.</li> <li>- Wh-Questions What is this/that/it? This/That/It is a/an... How many....? There is/are ..... Where is/are....? It is in/on/under..... They are in/on/under... etc.</li> </ul>
4. Speak in an exchange with short and simple words in inter-personal communication by following the models heard. (FL 1.2 G.3/1)	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.
5. Express their own simple needs by following the models heard. (FL 1.2 G.3/3)	Words, idioms and sentences to express needs: Please...../ May I go out?/May I come in?. etc.

Expected Outcome	Yearly Contents
6. Speak to ask for and give simple data about themselves and their friends by following the models heard. (FL 1.2 G.3/4)	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.
7. Tell their own feelings about various objects around them or various activities by following the models heard. (FL 1.2 G.3/5)	What time is it? It is ....o'clock. How many....are there? There is/ are... who is...? He/She is...etc.
8. Speak to give data about themselves and matters around them. (FL 1.3 G.3/1)	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
9. Speak and make accompanying gestures in accordance with social manners/ culture of native speakers. (FL 2.1 G.3/1)	Public manners/ the culture of native speakers: Thanking, apologizing, body language while speaking to introduce oneself, hand shaking/ waving accepting or denying
10. Tell the names and simple vocabulary about the festivals/ important days/ celebrations and lifestyles of native speakers. (FL 2.1 G.3/2)	Vocabularies about festivals, important days, celebration and way of life of the native speakers like Christmas day, New Year day, costumes, food & drink
11. Participate in language and cultural activities appropriate to their age levels. (FL 2.1 G.3/3)	Language and culture activities Playing game, singing songs, story telling( with body language), celebrate Christmas/ New Year/Valentine's

**Expected outcomes** FL 1.1 G.3/1, G.3/2, G.3/4

FL 1.2 G.3/1, G.3/3, G.3/4, G.3/5

FL 1.3 G.3/1

FL 2.1 G.3/1, G.3/2, G.3/3

Total : 11 Expected outcomes



## Learning Time Structure

### Grade 3 : 80 hours

No.	Unit	Time (period)	Score (point)
1	Unit 1 Friends and Family	8	7
2	Unit 2 Everyday Activities	8	7
3	Unit 3 Leisure Activities and Sports	8	7
4	Unit 4 Weather and Seasons	8	7
5	Unit 5 Locations in the House	8	7
6	Unit 6 Food and Drinks	8	7
7	Unit 7 Directions	8	7
8	Unit 8 Places	8	7
9	Unit 9 Vacation - Related	8	7
10	Unit 10 Animals	8	7
	Mid Term & Final Exam	2	30
Total		80	100

## Course Description

**E14201 English**

**Area of Foreign Language**

**Grade 4**

**80 hours**

Students ask for help, accept and refuse to give help in simple situations. They act in compliance with the orders, the requests and the instructions that they have heard and read. They can accurately read aloud sentences, texts, tales and short verses by observing the principles of reading. They are able to tell the main idea and answer the questions after listening to and reading dialogues, simple tales and stories. They are able to speak and write to ask for and give data about themselves, friends, families and matters around them. The students speak/write to give data about themselves, friends and the surrounding environment. They can also draw pictures, plans, charts and tables to show the various data that they have heard and read from the articles. They can use words, tone of voice, gestures and manners politely and appropriately by observing social manners and culture of Western countries. They also can 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. They are able to use simple and compound sentences to communicate meanings in various contexts. The students use languages to communicate various situations in the classroom and in school; use foreign languages in searching for and collecting various data; and they are skillful 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.

The above objectives should be reached through group activities to strengthen their understanding and communication skills.

Expected Outcome	Yearly Contents
1. Pronounce and spell words; accurately read aloud groups of words, sentences, simple texts and chants by observing the principles of reading. (FL 1.1 G.4/2)	Words/ group of words/ chants and spelling Dictionary using Reading based on principles of pronunciation: <ul style="list-style-type: none"><li>- Pronouncing first and final sounds</li><li>- Words/group of words stress</li><li>- Sentence intonation</li></ul>

Expected Outcome	Yearly Contents
2. Answer questions from listening to and reading sentences, dialogues and simple tales. (FL 1.1 G.4/4)	Sentences/dialogues/ stories with illustrations. Questions about the main idea of story like : Who, What, Where -Yes/No Questions Is/Are/Can.....? Yes,....is/are/can. No,...isn't/aren't/can't. etc. Do/Does/Can/Is/Are...? Yes/No ... etc.
3. Use orders, requests and simple requests for permission. (FL 1.2 G.4/2)	The commands, requests and permissions in classroom
4. Speak/write to ask for and give data about themselves, their friends and families. (FL 1.2 G.4/4)	Words, idioms and sentences for asking and giving information about themselves, friends and family: What is your name? My name is..... What time is it? It is ....o'clock. How many....are there? There is a/an... / There are... Where is the.....? It is in/on/under.....etc.
5. Speak/write to give data about themselves and matters around them. (FL 1.3 G.4/1)	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
6. Speak to express simple opinions about matters around them. (FL 1.3 G.4/3)	Sentences to express opinions about things around them
7. Speak and politely make accompanying gestures in accordance with social manners and culture of native speakers. (FL 2.1 G.4/1)	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

Expected Outcome	Yearly Contents
8. Answer questions about festivals/ important days/ celebrations and simple lifestyles of native speakers. (FL 2.1 G.4/2)	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
9. Participate in language and cultural activities appropriate to their age levels. (FL 2.1 G.4/3)	Language and culture activities Playing game, singing songs, story telling, role play , celebrate Christmas/ New Year/Valentine's
10. Tell differences of the sounds of the alphabet, words, groups of words, sentences and texts in foreign languages and Thai language. (FL 2.2 G.4/1)	The differences of sound of letters words, group of words and sentences between foreign language and Thai
11. Listen and speak in situations in the classroom and in school. (FL 4.1 G.4/1)	Using language to listen speak /read in situations happening in classroom and school

**Expected outcomes** FL 1.1 G.4/2, G.4/4 FL 1.2 G.4/2, G.4/4  
FL 1.3 G.4/1, G.4/3  
FL 2.1 G.4/1, G.4/2, G.4/3 FL 2.2 G.4/1  
FL 4.1 G.4/1

Total : 11 Expected outcomes



## Learning Time Structure

**Grade 4 : 80 hours**

No.	Unit	Time (period)	Score (point)
1	Unit 1 Weather	6	5
2	Unit 2 Superhero	6	5
3	Unit 3 Computer Games	6	6
4	Unit 4 Experiences	7	6
5	Unit 5 Amazing Young People	7	6
6	Unit 6 Exploring Thailand	7	6
7	Unit 7 Opposite	6	6
8	Unit 8 Permission	6	6
9	Unit 9 Life in Old Siam	6	6
10	Unit 10 Space	7	6
11	Unit 11 Thai Folk Tale	7	6



No.	Unit	Time (period)	Score (point)
12	Unit 12 Travelling	7	6
	Mid Term & Final Exam	2	30
Total		80	100

## Course Description

**15201 English**

**Area of Foreign Languages**

**Grade 5**

**80 hours**

Listening, speaking, writing and reading are known as the four macro-skills in English. The students are expected to deal and practice these skills to achieve effective communication. The students are expected to understand the topics and themes given by the resource book, and most importantly the competencies and objectives emphasized by the Basic Education Core Curriculum. From the given topics, the students are expected to communicate properly and correctly. They will be able to read and understand texts, selections, tales and even short verses. They should comprehend the materials that they are reading to improve and enhance their reading comprehension. The students are also expected to speak and utter words with correct pronunciation and enunciation. Through this, the students will be able to give information about their personal life, their friends and their families. Eventually, they can consistently explain and give opinions or views about the things happening around, and can freely express their selves in a polite and appropriate manner.

Additionally, the students are expected to use the English language correctly and properly. They should be able to understand the usages of basic grammar in communicating for effective conversation like orders, requests and simple instructions. Aside, they also have to improve their vocabularies by understand the meaning of different words and to also appreciate their heritage on what are the similarities and differences of their culture and customs to other nations. With this, they will be able to connect their selves to foreign languages and native speakers. Constructing correct sentences and paragraphs, writing the correct spelling, uttering the correct pronunciation and constant communicating using the English language are also few of the most relevant competencies and skills that students have to achieve. Through these competencies, the students will be able to achieve and convey meaning in various contexts using the skills that they will have to attain. Furthermore, learning the English language requires the students to be attentive, responsible, enthusiastic, and should have a good attitude and willingness towards learning.

The competencies and objectives stated in this course description will be made possible by the effective collaboration of the students, parents, teachers and the school itself.

Expected Outcome	Yearly Contents
1. Speak / write in an exchange in interpersonal communication (FL 1.2 G.5/1)	Use possessive pronouns correctly and properly in daily conversation.  e.g. His, hers, yours, mine, theirs, ours

Expected Outcome	Yearly Contents
2. Speak / write to ask for and give information about themselves, their friends, families and matters around them. (FL 1.2 G.5.4)	Differentiate the usages among modals (may, might and could) in making predictions and possible outcomes.
3. Act in compliance with orders, requests and simple instructions heard and read. (FL 1.1 G.5/1)	Use adverb of manner in describing an action happening from the past, in the present and also in the future. e.g. quickly, probably, carefully, correctly, frankly
4. Listen, speak and read/write in various situations in the classroom and in the school. (FL 4.1 G.5/1)	Understand the usages of never, ever, yet and just in constructing sentences and in conversations. e.g. I have never been to Disneyland, Have you ever seen a monster?, They have just eaten dinner, I have not yet read the book
5. Search for and collect the terms related to other learning areas, and present them through speaking / writing. (FL 3.1 G.5/1)	Understand the meaning of the vocabulary terms by applying it in real-life situation. e.g. hardware store, pharmacy, restaurant, supermarket
6. Tell the 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 Languages. (FL 2.2 G.5/1)	Comprehend the different usage of simple past and present perfect tense in conversations. e.g. I went to Doi Suthep last week. I have gone to Doi Suthep. I will surely visit again.
7. Speak / write to express their own feelings about various matters around them and various activities, as well as provide brief justification. (FL 1.2 G.5/5)	Comprehend the usages of past continuous in correct conversations. e.g. Som was singing when the phone rang.
8. Accurately read aloud the given sentences, the paragraphs and the short poems by observing the principles of reading. (FL 1.1 G.5/2)	Improve and enhance reading comprehension by reading stories and short selection as a constant practice.
9. Speak / write in an exchange in interpersonal communication. (FL1.2 G.5/1)	Understand the correct usages of asked, told, and said and spoke in conversations. e.g. I spoke Japanese. She told us to dig a hole. She said, "Drop the ball". He asked, "Where are you going?"

Expected Outcome	Yearly Contents
10. Speak /write to give information about themselves and matters around them. (FL 1.3 G.5/1)	Use present continuous tense correctly and properly in real conversations.  e.g. We are playing after school tomorrow.  She is seeing her grandmother on Sunday.
11. Tell the 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 Languages. (FL 2.2 G.5/1)	Differentiate the usages of made of and used for in constructing sentences.  e.g. Ice cream is made of Milk.  Wood is used for making furniture.
12. Search for and collect the terms related to other learning areas, and present them through speaking / writing. (FL 3.1 G.5/1)	Appreciate the important purpose of garbage and old things in recycling.
13. Use foreign languages to search for and collect various information. (FL 4.2 G.5/1)	Meet and comprehend new vocabulary words by applying it in real conversations.
14. Answer the questions/tell the importance of festivals/importance of festivals/ important days/celebrations and simple lifestyle of the native speakers. (FL 2.1 G.5/2)	Value the importance of generosity and kindness influenced by Thai customs, festivals, and culture in daily lives.
15. Tell the 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 Languages. (FL 2.2 G.5/1)	Distinguish the usages of going to and will in constructing sentences and daily conversation.  e.g. I am going to visit my grandmother next week.  In the future, she will be a lawyer.
16. Tell the 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 Languages. (FL 2.2 G.5/1)	Understand the uses of do, does, has and have in real conversations.  e.g. Do the monks have to bless the couple?  Does the bride have to give money to the groom?



Expected Outcome	Yearly Contents
17. Answer the questions/tell the importance of festivals/importance of festivals/ important days/celebrations and simple lifestyle of the native speakers. (FL 2.1 G.5/2)	Define, identify and appreciate the importance of the different Thai sports in the lives of Thai people. e.g. Muay Thai, football, etc.

Expected outcomes: FL1.1 G.5/1, 5/2, 5/4

FL 2.2 G.5/1

FL 1.2 G. 5/1, 5/4

FL 3.1 G.5/1

FL 1.3 G.5/1

FL 4.1 G.5/1

FL 2.1 G.5/2

FL 4.2 G.5/1

Total: 11 Expected Outcomes

## Learning Time Structure

### Grade 5: 80 Hours

No.	Unit	Time (period)	Score (point)
1	Unit 1 Hobbies and Interests	6	5
2	Unit 2 The Future	6	5
3	Unit 3 Thai Heroes and Superheroes	6	6
4	Unit 4 Adventure	7	6
5	Unit 5 Shops	7	6
6	Unit 6 Places in Thailand	7	6
7	Unit 7 Thai Wildlife	6	6
8	Unit 8 Strange Stories	6	6
9	Unit 9 Recycling	6	6
10	Unit 10 Thai Beaches	7	6
11	Unit 11 Thai Traditions	7	6



No.	Unit	Time (period)	Score (point)
12	Unit 12 Thai Sports	7	6
	Mid Term & Final Exam	2	30
Total		80	100

### Course Description

**E16201 English**

**Area of Foreign Language**

**Grade 6**

**80 hours**

Students act in compliance with the orders, the requests and the instructions that they have heard and read. They can accurately read aloud sentences, texts, tales and short verses by observing the principles of reading. They are able to tell the main idea and answer the questions after listening to and reading dialogues, simple tales and stories. They can speak/write in an exchange in interpersonal communication. The students can also ask for help, accept and refuse to give help in simple situations. They are able to speak and write to ask for and give data about themselves, friends, families and matters around them. The students speak/write to give data about themselves, friends and the surrounding environment. They can also draw pictures, plans, charts and tables to show the various data that they have heard and read from the articles. They are able to speak/write to show opinions about various matters around them. They can use words, tone of voice, gestures and manners politely and appropriately by observing social manners and culture of Western countries. They also can 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. They can compare the similarities/differences between the festivals, celebrations and traditions of native speakers and those of Thais. They are able to use simple and compound sentences to communicate meanings in various contexts. The students use languages to communicate various situations in the classroom and in school; use foreign languages in searching for and collecting various data; and they are skillful 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.

The above objectives should be reached through group activities to strengthen their understanding and communication skills.

Expected Outcome	Yearly Contents
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1. Students should be able to follow one's orders, requests and instruction heard and read. (FL 1.1 G.6/1)	Good morals, street safety, religious principles, and so on.
2. Students should be able to read aloud accurately texts, tales and short poems by observing the principles of reading.. (FL 1.1 G.6/2)	Ancient days, History of the place, outdoor activities, amazing people in the world.
3. Students should be able to choose/specify the sentences or short texts corresponding to the meanings of symbols or signs read. (FL 1.1 G.6/3)	Ask and answer about general knowledge around us e.g. weather, natural disasters, different types of weather, weather conditions, temperature, air pressure, humidity, water cycle form.
4. Students should be able to speak/write in an exchange in interpersonal communication. (FL 1.2 G.6/1)	Talk about the preposition of thing inside and outside the house, school, and market and so on.
5. Students should be able to use orders, requests and give instructions. (FL 1.2 G.6/2)	Good citizenship, Discipline, Social media, Generations to generations
6. Students should be able to speak/write to give data about themselves, their friends and the environment around them. (FL 1.3 G.6/1)	Ask and answer about Word study, History, Geographical knowledge around us e.g. weather, natural disasters, different types of weather, weather conditions, temperature, air pressure, humidity, water cycle form
7. Students should be able to use words, tone of voice, gestures and manners politely and appropriately by observing the social manners and culture of native speakers. (FL 2.1 G.6/1)	Admiration, Good morals, Positivity, ASEAN, Discipline, religious principles
8. Students should be able to 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. (FL 2.2 G.6/1)	Fantasy and adventure, Imagination of heroes, Good citizenship, Discipline, Teenagers, Social media, Being Independent
<b>Expected Outcome</b>	<b>Yearly Contents</b>

9. Students should be able to search for and collect the terms related to other learning areas from learning sources, and present them through speaking/ writing. (FL 3.1 G.6/1)	Science – technology, Language Arts – fiction, writing about inventors and their inventions.
10. Students should be able to use language for communication in various situations in the classroom and in school. (FL 4.1 G.6/1)	Technology and movies, Social media entertainment Activities in and outside classroom.
11. Students have good attitude to use English to search for and collect various data. (FL 4.2 G.6/1)	Exploring Thailand, Learn to economize, Stop beneficial gains by using harsh methods, follow the good path avoiding the bad and believe in religious principles

**Expected outcomes** FL 1.1 G.6/1, G.6/2, G.6/3

FL 1.2 G.6/1, G.6/2

FL 1.3 G.6/1

FL 2.1 G.6/1

FL 2.2 G.6/1

FL 3.1 G.6/1

FL 4.1 G.6/1

FL 4.2 G.6/1

Total : 11 Expected outcomes



## Learning Time Structure

**Grade 6 : 80 hours**

No.	Unit	Time (period)	Score (point)
1	Unit 1 Weather	6	5
2	Unit 2 Superhero	6	5
3	Unit 3 Computer Games	6	6
4	Unit 4 Experiences	7	6
5	Unit 5 Amazing Young People	7	6
6	Unit 6 Exploring Thailand	7	6
7	Unit 7 How Thai Food is Made	6	6
8	Unit 8 Inventions	6	6
9	Unit 9 Famous Places in Thailand	6	6
10	Unit 10 Things at Home	7	6
11	Unit 11 Entertainment	7	6



No.	Unit	Time (period)	Score (point)
12	Unit 12 Thai Sports	7	6
	Mid Term & Final Exam	2	30
Total		80	100

## Mathematics

### Why it is necessary to learn mathematics

Mathematics is highly important to develop human mind. It enables a person to think logically and systematically, to analyse various problems or situations, to anticipate, to plan, to make decisions, to solve problems and to apply mathematics to daily life. Mathematics serves as a tool for learning science, technology and other disciplines. It is therefore useful to life, enhancing quality of life and enabling people to live in harmony.

### What is learned in mathematics?

The learning area of mathematics is aimed at enabling all learners to continuously learn mathematics in accord with their potentiality. The areas prescribed for all learners are as follow:

- **Numbers and Operations:** the numerical concepts and sense of perception; real number system; the properties of real numbers; the operation of numbers; ratio; percentage; problem-solving involving numbers; and the application of numbers for 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 for various situations
- **Geometry:** the geometric figures and the properties of one-dimensional geometric figures; visualisation 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; data collection; systematisation and presentation; central tendency and data distribution; data analysis and interpretation; opinion polling; probability; application of statistical knowledge and probability; application of probability for explaining various situations as well as for facilitating decision-making for real life
- **Mathematical Skills and Processes:** problem-solving through diverse methods; reasoning; communication; 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; solve problems involving addition, subtraction, multiplication and division; and be aware of validity of the answers
- Have knowledge and understanding of length, distance, weight, volume, capacity, time and money; measure correctly and appropriately; and apply knowledge of measurement for solving problems
- Have knowledge and understanding of triangle, quadrilateral, circle, ellipse, cuboid, sphere and cylinder as well as point, line segment and angle

- Have knowledge and understanding of pattern and explain relationship
- Collect and analyse relevant data and information about themselves and their surroundings; use pictograms and bar charts for discussing various issues
- Apply diverse methods for problem-solving; use mathematical knowledge, skills and processes appropriately for solving problems, suitably present reasoning for decision making and appropriately present the conclusion, use mathematical language and symbols for communication, as well as accurate and appropriate presentation of mathematical concepts; link various bodies of mathematical knowledge; link mathematics with other disciplines; and attain 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; solve problems involving addition, subtraction multiplication and division of cardinal numbers, fractions, decimals of not more than three places and percentages; be aware of validity of the answers; and 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; measure correctly and appropriately; and apply knowledge of measurement for solving problems
- 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 explain their relationships and solve problems involving patterns; analyse situations or problems and write them in the linear equations with an unknown and solve them.
- Collect and present data and information and discuss various issues from pictograms, bar charts, comparative bar charts, pie charts, line graphs and tables; and apply knowledge of basic probability for projecting various possible situations
- Apply diverse methods for problem-solving, using mathematical and technological knowledge, skills, and processes appropriately; suitably provide reasoning for decision-making and appropriately present the conclusions; use mathematical language and symbols for communication as well as accurate and appropriate presentation of mathematical concepts; link various bodies of mathematical knowledge and link mathematical knowledge with other disciplines; and attain ability for creative thinking

### Grade 9 graduates

- Understand concepts of numbers, ratio, proportion, percentage, real numbers expressed in exponential notation with integer indices, square root and cube root of real numbers; carry out operations involving integral numbers, fractions, decimals, exponents, square roots and cube roots of real numbers; apply numerical knowledge to real life
- Have knowledge and understanding of surface areas of prisms and cylinders, and volume of prisms, cylinders, pyramids, cones and spheres; appropriately choose units of the various systems of measuring length, area, and volume; and apply knowledge of measurement to real life

- Construct and explain stages of constructing two-dimensional geometric figures with compass and straight edge; explain characteristics and properties of three dimensional geometric figures, i.e., prisms, pyramids, cylinders, cones and spheres
- Understand properties of congruence and similarities of triangles, parallels, Pythagoras' theorems and converse; apply these properties for reasoning and problem-solving; and understand geometric transformation through translation, reflection and rotation
- Visualise and explain characteristics of two-dimensional and three-dimensional geometric figures
- Analyse and explain relationships of patterns, situations or problems; and can use single-variable linear equations, two-variable linear equation systems, single-variable linear inequality, and graphs in problem-solving
- Determine an issue, write questions about a problem or a situation, determine methods of study and collect and present data by utilising pie charts or any other forms of presentation
- Understand concepts of the measures of central tendency, arithmetic mean, median, and mode of non-frequency distribution data, and apply them to statistical data and information
- Understand the concepts of random sampling and probability; apply knowledge of probability for projecting and for decision-making
- Apply diverse methods for problem-solving; avail mathematical and technological knowledge, skills and processes appropriately to solve problems; suitably provide reasoning for decision-making and appropriately present the conclusion; use mathematical language and symbols for communication; present mathematical concepts accurately and clearly; link various bodies of mathematical knowledge; link mathematical knowledge, principles and processes with other disciplines; and attain ability for creative thinking

### Grade 12 graduates

- Have concepts of the real number system, absolute values of real numbers and real numbers expressed in radicals and in exponential notation with rational indices; find estimates of real numbers expressed in radicals and exponents through appropriate calculation methods; and apply properties of real numbers
- Apply knowledge of trigonometric ratio for estimating distance and height, and solve measurement problems
- Have concept of sets and their operation; and apply knowledge of Venn-Euler diagrams for problem-solving and checking validity of reasoning
- Understand and apply reasoning through induction and deduction
- Have concepts of relation and function and apply it for problem-solving
- Understand concepts of arithmetic sequence, geometric sequence and find general terms; understand the concepts of the sums of the first n terms of arithmetic and geometric series, using formulas
- Know and understand the concept of solving equations and inequalities with one variable (degree not more than two); and use graphs of equations, inequalities or functions for problem-solving
- Understand simple methodology for opinion polling; choose central tendency suitable to data and objectives; find arithmetic mean, median, mode, standard deviation and percentile of data; analyse data and apply results of data analysis for facilitating decision making



- Understand concepts of random sampling and probability; apply knowledge of probability for projection and for decision-making
- Apply diverse methods for problem-solving; avail of mathematical and technological knowledge, skills and processes for appropriately solving problems; suitably provide reasoning for decision-making and appropriately present the conclusions; use mathematical language and symbols for communication; present mathematical concepts accurately and clearly; link various bodies of mathematical knowledge, principles, and processes with other disciplines; and attain ability for creative thinking

## Strand 1: Numbers and Operations

**Standard MA1.1:** Understanding of diverse methods of presenting numbers and their application for real life

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<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>	<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>	<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>	<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>	<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>	<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>

## Strand 1: Numbers and Operations

**Standard MA1.2:** Understanding of the results of operations of numbers, the relationships of operations, and the application of operations for problem-solving

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<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> <p>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.</p>	<p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p>	<p>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.</p> <p>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. P 4/3 Add and subtract fractions with same denominator.</p>	<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> <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>	<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> <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>

## Strand 1: Numbers and Operations

### Standard MA1.3: Use of estimation in calculation and problem-solving

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	-	-	-	P 5/1 Make approximate estimates of integers of 10, 100 and 1,000 of cardinal numbers, which can be applied.	P 6/1 Make approximate estimates of various integers of cardinal numbers, which can be applied.  P 6/2 Make estimates of decimals of not more than 3 places.

## Strand 1: Numbers and Operations

### Standard MA1.4: Understanding of the numerical system and the application of numerical properties

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 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.

## Strand 2: Measurement

**Standard MA2.1:** Understanding of the basics of measurement; ability to measure and to estimate the size of objects

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
P1/1 Tell length, weight, volume, and capacity by using non-standard units of measure.	<p>P 2/1 Tell length in metres and centimetres, and compare length by using the same unit.</p> <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>	<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> <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>	<p>P4/1 Tell the relationship between measuring units for length, weight, volume or capacity and time.</p> <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>	<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>	<p>P 6/1 Explain a route or indicate positions of various objects by specifying direction and real distance from pictures, maps and diagrams.</p> <p>P 6/2 Find the area of quadrilateral.</p> <p>P 6/3 Find the circumference and area of circles.</p>



## Strand 2: Measurement

### Standard MA2.2: Solving measurement problems

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	P 2/1 Solve problems involving measurement of length, weight, volume and money.	<p>P 3/1 Solve problems involving measurement of length, weight, volume, money and time.</p> <p>P 3/2 Read and keep record of income and expenditure.</p> <p>P 3/3 Read and keep record of activities or events, specifying the time.</p>	<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>	P 5/1 Solve problems involving area and perimeter of quadrilaterals and triangles.	<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>



### Strand 3: Geometry

**Standard MA3.1:** Ability to explain and analyse two-dimensional and three-dimensional geometric figures

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<p>P 1/1 Distinguish triangles, quadrilaterals, circles and ellipses.</p>	<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>	<p>P 3/1 Identify two-dimensional geometric figures that are components of an object in the form of a three dimensional geometric figure.</p> <p>P 3/2 Identify two-dimensional geometric figures with axis of symmetry from a given figure.</p> <p>P 3/3 Write linear points, straight lines, rays, parts of straight lines, angles and symbols.</p>	<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>	<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>	<p>P 6/1 Identify kinds of two-dimensional geometric figures that are components of three-dimensional geometric figures.</p> <p>P 6/2 Identify characteristics of diagonals in various kinds of quadrilaterals.</p> <p>P 6/3 Identify which pair of straight lines is parallel.</p>

### Strand 3: Geometry

**Standard MA3.2:** Ability in visualisation, spatial reasoning and application of geometric models for problem-solving

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	P 2/1 Draw two-dimensional geometric figures by using geometric models.	<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>	P 4/1 Use geometric figures to create various designs.	<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>	<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>



## Strand 4: Algebra

**Standard MA4.1:** Understanding and ability to analyse patterns, relations and functions

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<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>	<p>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.</p> <p>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.</p>	<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>	<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>	<p>P 5/1 Tell the numbers and relations in patterns of given numbers.</p>	<p>P 6/1 Solve problems involving pattern.</p>

## Strand 4: Algebra

**Standard MA4.2:** Ability to apply and to interpret algebraic expressions, equations, inequalities graphs and other mathematical models to represent various situations and to apply them for problem-solving

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	-	-	-	-	<p>P 6/1 Write an equation based on a situation or problem, solve the equation and check the answer.</p>

### Strand 5: Data Analysis and Probability

**Standard MA5.1:** Understanding and ability to apply statistical methodology for data analysis

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	-	<p>P 3/1 Collect and categorize data about oneself and the surroundings in daily life.</p> <p>P 3/2 Read data from simple pictograms and bar charts.</p>	<p>P 4/1 Collect and categorize data.</p> <p>P 4/2 Read data from pictograms, bar charts and tables.</p> <p>P 4/3 Draw pictograms and bar charts.</p>	<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>	<p>P 6/1 Read data from line graphs and pie-charts.</p> <p>P 6/2 Draw comparative bar charts and line graphs.</p>

### Strand 5: Data Analysis and Probability

**Standard MA5.2:** Application of statistical methodology and knowledge of probability for valid estimation

Grade-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	-	-	-	<p>P 5/1 Can tell whether a described situation: - will definitely happen; - may or may not happen; - will definitely not happen.</p>	<p>P 6/1 Explain events by using terms with similar meaning to: - will definitely happen; - may or may not happen; - will definitely not happen</p>

## Strand 6: Mathematical Skills and Processes

**Standard MA6.1:** Ability in problem-solving, reasoning, communication and presentation of mathematical concept, linking various bodies of mathematical knowledge, and linking mathematics with other disciplines; and attaining ability for creative thinking

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

### Description of Basic Courses

#### Mathematics Grade 1

Time 40 hours

This Grade 1 Mathematics course is designed to establish a solid foundation in fundamental math concepts and skills through engaging and interactive lessons. Students will explore numbers, basic operations, shapes, measurements, patterns, and data in a hands-on, age-appropriate way.

The course focuses on developing number sense, counting, addition and subtraction within 100, understanding shapes and patterns, and using measurement tools. Learners will use visual aids, manipulatives, and real-life situations to deepen their understanding and build problem-solving skills, encouraging logical thinking and confidence in math.



## Learning Time Structure

### Mathematics Grade 1: 40 hours

No.	Unit	Objectives	Time (period)	Score (point)
1	Unit 1 Numbers 0 to 10	<ul style="list-style-type: none"> <li>- to recognize and identify numbers from 0 to 10 in written and spoken form</li> <li>- to count and write numbers from 0 to 10 correctly</li> <li>- to use numbers 0-10 in simple activities such as asking and answering “how many”</li> </ul>	4	10
2	Unit 2 Addition within 9	<ul style="list-style-type: none"> <li>- to understand the concept of addition as combining two groups to make a total</li> <li>- to represent addition problems using objects, drawings, and number sentence</li> </ul>	4	10
3	Unit 3 Subtraction within 9	<ul style="list-style-type: none"> <li>- to understand the concept of subtraction as taking away or finding the difference</li> <li>- to represent subtraction problems using objects, drawings, and number sentence</li> </ul>	4	10
4	Unit 4 Numbers 11 to 20	<ul style="list-style-type: none"> <li>- to recognize and identify numbers from 11 to 20 in written and spoken form</li> <li>- to count and write numbers from 11 to 20 correctly</li> <li>- to use numbers 11-20 in simple activities such as asking and answering “greatest or smallest”</li> </ul>	4	10
5	Unit 5 Addition and Subtraction within 20	<ul style="list-style-type: none"> <li>- to solve addition problems within 20 using strategies such as counting on, making ten, and using number lines or manipulatives.</li> </ul>	4	10



No.	Unit	Objectives	Time (period)	Score (point)
		<ul style="list-style-type: none"> <li>- to solve subtraction problems within 20 using strategies like counting back, using a number line, or drawing pictures.</li> <li>- to identify and use related facts. Ex. if <math>8 + 5 = 13</math>, then <math>13 - 5 = 8</math></li> </ul>		
6	Unit 6 Length	<ul style="list-style-type: none"> <li>- to identify and describe length as a measurable attribute of objects</li> <li>- to compare the lengths of two or more objects using terms such as longest and shortest</li> <li>- to order objects by length from shortest to longest or longest to shortest</li> </ul>	4	10
7	Unit 7 Mass	<ul style="list-style-type: none"> <li>- to understand mass as how heavy or light an object is</li> <li>- to compare and sort the mass of two or more objects using terms like heavier and lighter</li> </ul>	4	10
8	Unit 8 Numbers Up to 100	<ul style="list-style-type: none"> <li>- to recognize and identify numbers from 0 to 100 in written and spoken form</li> <li>- to count forward and backward from any given number within 100</li> <li>- to compare and order numbers up to 100 using terms like greater than, less than, and equal to</li> </ul>	3	8
9	Unit 9 Addition and Subtraction within 100	<ul style="list-style-type: none"> <li>- to add and subtract numbers within 100 using strategies such as counting on, using a number line, and place value</li> <li>- to solve addition and subtraction word problems within 100 using drawings, objects, or equations to represent the problem</li> </ul>	3	8



No.	Unit	Objectives	Time (period)	Score (point)
10	Unit 10 Shapes and Patterns	- to identify and name 2D shapes, such as circles, squares, triangles, and rectangles - to describe 2D shapes based on their attributes. Ex. number of sides and corners	3	8
11	Unit 11 Pictograms	- to understand what a pictogram is and how it represents data using pictures or symbols - to read simple pictograms where one picture represents one object	3	6
			<b>40</b>	<b>100</b>

## Description of Basic Courses

### Mathematics: 2<sup>nd</sup> Grade

### Time 40 hours

This Grade 2 Mathematics course is designed to develop a solid foundation in basic mathematical concepts and skills through interactive lessons and practical applications. Students will engage in exploring numbers, operations, patterns, geometry, measurement, data, and problem-solving strategies.

The course focuses on enhancing number sense, understanding place value, mastering basic addition and subtraction facts, and applying math in everyday situations. Learners will use hands-on activities, visual models, and real-world scenarios to understand concepts and develop logical thinking.



**Learning Time Structure  
Mathematics Grade 2: 40 hours**

No.	Unit	Objectives	Time (period)	Score (point)
1	Unit 1 Numbers and Number Sense	<ul style="list-style-type: none"> <li>- Reading and writing numbers up to 1,000</li> <li>- Place value and digit value</li> <li>- Comparing and ordering numbers</li> </ul>	4	10
2	Unit 2 Addition and Subtraction	<ul style="list-style-type: none"> <li>- Two- and three-digit addition and subtraction</li> <li>- Word problems and mental math</li> <li>- Problem-solving strategies</li> </ul>	4	10
3	Unit 3 Multiplication	<ul style="list-style-type: none"> <li>- Repeated addition and equal groups</li> <li>- Basic multiplication facts</li> </ul>	4	10
4	Unit 4 Division	<ul style="list-style-type: none"> <li>- Simple division as sharing</li> </ul>	4	10
5	Unit 5 Combined Operations	<ul style="list-style-type: none"> <li>- Understanding order in mixed addition and subtraction</li> <li>- Using parentheses in simple equations</li> <li>- Solving combined operations word problems</li> <li>-</li> </ul>	4	10
6	Unit 6 Time	<ul style="list-style-type: none"> <li>- Telling time to the hour, half hour, quarter hour, and nearest 5 minutes</li> <li>- Understanding a.m. and p.m.</li> <li>- Reading both analog and digital clocks</li> <li>- Solving simple time-related problems (e.g., duration, elapsed time)</li> </ul>	4	10



No.	Unit	Objectives	Time (period)	Score (point)
7	Unit 7 Length	<ul style="list-style-type: none"> <li>- Measuring <b>length</b> using standard units (centimeters and meters)</li> <li>- Comparing and ordering lengths</li> <li>- Estimating and measuring objects</li> </ul>	4	10
8	Unit 8 Mass	<ul style="list-style-type: none"> <li>- measuring weight (grams, kilograms) and capacity (milliliters, liters)</li> </ul>	3	8
9	Unit 9 Volume and Capacity	<ul style="list-style-type: none"> <li>- Understanding the concepts of <b>volume</b> and <b>capacity</b></li> <li>- Comparing capacities of containers (full, empty, half-full)</li> <li>- Measuring using standard units (milliliters and liters)</li> <li>- Estimating and solving word problems related to capacity</li> </ul>	3	8
10	Unit 10 Two-Dimensional Shapes	<ul style="list-style-type: none"> <li>- Identifying 2D and 3D shapes</li> <li>- Properties of shapes (edges, faces, corners)</li> <li>- Lines of symmetry</li> </ul>	3	6
11	Unit 11 Pictograms	<ul style="list-style-type: none"> <li>- Organizing data in tables</li> <li>- Reading and creating <b>pictograms</b> using picture symbols</li> <li>- Comparing data using bar graphs and pictographs</li> </ul>	3	6
			<b>40</b>	<b>100</b>

### Basic Course Description

**Mathematics – Grade 3  
hours**

**Time: 40**

This Grade 3 Mathematics course is designed to build a strong foundation in numeracy, mathematical reasoning, and problem-solving through a wide range of topics aligned with the curriculum standards. It covers fundamental concepts such as whole numbers up to 100,000, the four basic operations, and fractions, gradually progressing toward practical applications in measurements, geometry, money, and data handling.

Through hands-on activities, visual representations, and real-life word problems, students will develop critical thinking and analytical skills needed for everyday situations. The course also integrates learning experiences that promote mathematical communication and confidence in dealing with numbers and operations.

**Learning Time Structure**  
Mathematics Grade 3: 40 hours

No.	Unit	Learning Objectives	Time (period)	Score (points)
1	Numbers up to 100,000	<ul style="list-style-type: none"> <li>- Read, write, compare, and order numbers up to 100,000</li> <li>- Understand place value</li> <li>- Round numbers to the nearest 10, 100, or 1,000</li> </ul>	3	10
2	Addition and Subtraction	<ul style="list-style-type: none"> <li>- Add and subtract numbers up to 100,000</li> <li>- Solve word problems involving addition and subtraction</li> </ul>	3	10
3	Multiplication	<ul style="list-style-type: none"> <li>- Understand multiplication as repeated addition</li> <li>- Learn multiplication tables up to 12</li> <li>- Multiply 1- to 3-digit numbers</li> </ul>	4	10
4	Division	<ul style="list-style-type: none"> <li>- Understand division as sharing and repeated subtraction</li> <li>- Divide 2- and 3-digit numbers by 1-digit numbers</li> <li>- Relate multiplication and division</li> </ul>	3	10
5	Combined Operations	<ul style="list-style-type: none"> <li>- Use the correct order of operations</li> <li>- Solve multi-step word problems</li> </ul>	3	5
6	Fractions	<ul style="list-style-type: none"> <li>- Understand basic fractions</li> <li>- Compare and order simple fractions</li> <li>- Add and subtract like fractions</li> </ul>	3	5
7	Money	<ul style="list-style-type: none"> <li>- Identify and count Thailand bills and coins</li> <li>- Solve real-life problems involving money (purchase, change)</li> </ul>	3	10
8	Time	<ul style="list-style-type: none"> <li>- Read and write time using analog and digital clocks</li> <li>- Solve problems involving elapsed time</li> </ul>	3	10
9	Length		3	10



No.	Unit	Learning Objectives	Time (period)	Score (points)
		- Measure and compare lengths using standard units (m, cm) - Solve problems involving perimeter		
10	Mass	- Measure and compare mass using grams and kilograms - Solve practical problems involving mass	3	5
11	Volume and Capacity	- Measure volume using liters and milliliters - Compare and estimate capacities	3	5
12	Shapes and Symmetry	- Identify 2D and 3D shapes - Understand symmetry and identify symmetrical figures	3	5
13	Data Analysis and Presentation	- Collect and organize data - Read and interpret pictographs and bar graphs	3	5
			40	100

## Basic Course Description

**Mathematics – Grade 4**

**Time: 40 hours**

This course is designed to help students master essential math concepts as outlined in the 12 chapters of the textbook. It focuses on building their understanding of numbers, operations, geometry, measurement, and data interpretation. The course aims to enhance not only their computational skills but also their logical thinking and problem-solving abilities. Lessons are delivered through interactive activities, guided examples, and independent practice, ensuring that students can connect mathematical concepts to real-life situations.

Over the span of 40 hours, students will explore topics such as place value, addition, subtraction, multiplication, division, fractions, time, shapes, and data presentation. Each lesson includes clear objectives, performance tasks, and assessments to monitor student progress. By the end of the course, students should be able to confidently handle mathematical operations and communicate their thinking effectively using proper mathematical vocabulary.

## Learning Time Structure

Mathematics Grade 4: 40 hours

No.	Unit	Learning Objectives	Time (period)	Score (points)
1	Numbers Greater than 100,000	- Identify and read large numbers. - Compare and order numbers up to 1 million.	3	7
2	Addition and Subtraction	- Solve addition problems with regrouping. - Apply subtraction in word problems.	4	9
3	Multiplication	- Understand repeated addition and arrays. - Multiply 2- to 3-digit numbers.	4	9
4	Division	- Understand division as sharing and grouping. - Divide 2-digit numbers.	3	7
5	Combined Operations	- Apply BODMAS rule correctly. - Solve multi-step word problems.	4	8
6	Fractions	- Recognize and name fractions. - Compare and order fractions.	3	8
7	Decimals	- Read and write decimal numbers. - Compare decimals to tenths and hundredths.	3	8
8	Time	- Tell time using digital and analog clocks. - Solve problems involving duration.	2	6
9	Points, Lines, Segments, Rays, Planes	- Identify types of lines. - Define basic geometric terms.	2	6
10	Angles	- Identify right, acute, and obtuse angles. - Measure angles using a protractor.	3	7
11	Rectangles	- Find perimeter and area. - Relate properties of rectangles.	2	6
12	Bar Charts and Two-way Tables	- Read and interpret bar charts. - Analyze data using tables.	3	8
	Assessment / Tests	- Evaluate mastery of key concepts through written and performance-based tasks - Analyze problem-solving and reasoning skills through testing	4	11
	<b>TOTAL</b>		<b>40</b>	<b>100</b>

## Basic Course Description

### Mathematics – Grade 5

**Time: 40 hours**

In this course the students learned 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.

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, measurement, Geometry, Algebra, data analysis and mathematical skills and processes

## Learning Time Structure

Mathematics Grade 5: 40 hours

No	Unit	Time ( Period )	Score ( Point)
1	Unit 1: Whole Numbers	4	10
2.	Unit 2: Fractions	4	10
3.	Unit 3: Decimals	4	10
4.	Unit 4: Percentage	4	10
5.	Unit 5: Length	4	10
6.	Unit 6: Mass	4	10
7.	Unit 7: Volume and Capacity	4	10
8.	Unit 8: Lines and Angles	4	10
9.	Unit 9: Quadrilaterals	4	10
10.	Unit 10: Prisms	4	10
	Total	40	100

## Basic Course Description

### Mathematics – Grade 6

**Time: 40 hours**

This course provides Grade 6 learners with a comprehensive foundation in essential mathematical concepts and skills. The topics covered include factors, fractions, decimals, percentages, ratios, and proportions—core areas that strengthen numerical fluency and computation. Learners will also engage with measurement topics such as volume and explore fundamental geometry through the study of circles, triangles, polygons, and three-dimensional shapes.

In addition, students will develop skills in analyzing patterns and interpreting data using pie charts, which helps enhance their logical thinking and problem-solving abilities. Through a variety of exercises and real-life applications, this course aims to deepen students' understanding of mathematics as a tool for everyday life and future learning. Activities are designed to encourage active participation, critical thinking, and confidence in using mathematical language and reasoning.

By the end of the course, students are expected to demonstrate competence in performing operations, solving word problems, recognizing patterns, and analyzing data representations, preparing them for more complex mathematical challenges in higher levels.



## Learning Time Structure

Mathematics Grade 6: 40 hours

	Unit	Learning Objectives	Time (period)	Score (points)
1	Factors	- Identify common factors and multiples of whole numbers - Determine prime and composite numbers	3	7
2	Fractions	- Add and subtract unlike fractions - Solve word problems involving fractions in real-life situations	4	10
3	Decimals	- Compare and order decimals up to three decimal places - Perform operations (add, subtract) involving decimals	3	7
4	Percentage	- Express a number as a percentage - Solve percentage problems involving discounts and increases - Relate multiplication and division	3	7
5	Ratios & Proportions	- Represent ratios using symbols and words - Solve problems involving equivalent ratios and proportions	3	7
6	Volume	- Calculate the volume of cubes and cuboids - Solve word problems involving volume using standard units	3	6
7	Circle	- Identify the parts of a circle (radius, diameter, center, circumference) - Calculate the circumference and area of a circle using formulas	3	7
8	Triangles	- Classify triangles based on sides and angles - Find missing angles or perimeter of a triangle	3	6
9	Polygons	- Identify and classify polygons based on number of sides - Calculate the sum of interior angles of a polygon	2	6
10	3D Shapes	- Describe 3D shapes using faces, edges, and vertices - Match 3D shapes with their nets	3	6
11	Patterns	- Recognize and extend number patterns - Identify and create shape patterns based on rules	3	5
12	Pie Chart	- Interpret data presented in a pie chart - Construct simple pie charts using given data	3	5
	<b>TOTAL</b>		<b>40</b>	<b>100</b>

## Science

### 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;
- 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 a 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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<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>	<p>P 2/1 Experiment and explain that water and light are essential factors for plan life.</p> <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>	-	<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> <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 touch, and apply acquired knowledge for useful purposes.</p>	<p>P5/1 Observe and specify components of flowers and structures involved in reproduction of angiosperms.</p> <p>P5/2 Explain reproduction of flowers, plants, plant propagation, and apply acquired knowledge for useful purposes.</p> <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>	<p>P6/1 Explain human growth from birth to adulthood.</p> <p>P6/2 Explain interrelated functioning of digestive, respiratory and 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>

### 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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
P1/1 Specify characteristics of living things in the local area, and categorise them by using external characteristics as criteria.	P2/1 Explain benefits of plants and animals in the local area.	<p>P3/1 Discuss various characteristics of living things in the immediate environment.</p> <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> <p>P3/4 Search for data and discuss kinds of extinct living things and kinds that exist in the present.</p>	-	<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> <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>	-

## 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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	-	P3/1 Explore the environment in the local area and explain the relationship between living things and the environment.	-	-	<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> <p>P6/3 Search for data and explain relationships between the lives of living things and the environment</p>

## 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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	-	<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>	-	-	<p>P6/1 Search for data and discuss sources of natural resources in each local area beneficial to living.</p> <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> <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>

### Strand 3: Life and the Environment

**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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<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>	<p>P2/1 Specify the kinds and compare properties of materials for making toys and articles of everyday use.</p> <p>P2/2 Choose appropriate and safe materials and articles for use in daily life.</p>	<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>	-	<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>	<p>P6/1 Experiment and explain properties of solids, liquids and gases.</p> <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>

### Strand 3: Life and the Environment

**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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	-	<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>	-	-	<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> <p>P6/3 Explain substance changes affecting living things and the environment.</p>

#### Strand 4: Forces and Motion

**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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
P1/2 Experiment and explain the act of pulling or pushing objects.	<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>	<p>P3/1 Experiment and explain effects of forces acting on objects.</p> <p>P3/2 Experiment the falling of objects on the Earth's surface and explain the Earth's attractive forces for the objects.</p>	-	<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> <p>P5/4 Experiment and explain buoyant forces of liquid, floating and sinking of objects.</p>	-

#### 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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	-	-	-	P5/1 Experiment and explain frictional forces and apply the knowledge gained for useful purposes.	-

## 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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	<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>	<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>	<p>P4/6 Experiment and explain that white light comprises various coloured lights, and apply the knowledge gained for useful purposes.</p>	<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>	<p>P6/1 Experiment and explain connecting a simple electrical circuit.</p> <p>P6/2 Experiment and explain electrical conductors and insulators.</p> <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>

## 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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
P1/1 Explore, experiment and explain components and physical properties of soil in the local area.	P2/1 Explore and categorise soil by using physical properties as criteria, and apply the knowledge gained for useful purposes.	<p>P3/1 Explore and explain physical properties of water from sources in the local area, and apply the knowledge gained for useful purposes.</p> <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>	<p>P4/1 Explore and explain soil formation.</p> <p>P4/2 Specify kinds and properties of soil used for growing plants in the local area.</p>	<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 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>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> <p>P6/3 Search for data and explain geological disasters affecting human beings and the environment in the local area.</p>

### 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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
P1/1 Specify that in the sky there are the sun, the moon and stars.	P2/1 Search for and discuss the importance of the sun.	P3/1 Observe and explain the rising and setting of the sun, the moon, causes of day and night and setting of directions.	P4/1 Make a model to explain characteristics of the solar system.	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.	P6/1 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.

### 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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
-	-	-	-	-	P6/1 Search for data and discuss progress and benefits of space technology.

## 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-level Indicators					
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<p>P1/1 Pose questions about the matters to be studied as prescribed or in accord with their interests.</p> <p>P1/2 Plan for observation, exploration, verification, study and research by using their own ideas and those of their teachers.</p> <p>P1/3 Use materials and instruments for exploration and verification and record results using simple methods.</p> <p>P1/4 Arrange data obtained from exploration and verification into groups and present results.</p> <p>P1/5 Express opinions in the course of exploration and verification.</p> <p>P1/6 Make a record and</p>	<p>P2/1 Pose questions about the matters to be studied as prescribed or in accord with their interests.</p> <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</p>	<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> <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>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> <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</p>	<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> <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>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> <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</p>



**Grade-level Indicators**

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<p>explain results of the exploration and verification by drawing pictures or writing short texts.</p> <p>P1/7 Verbally present their work for others to understand.</p>	<p>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>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>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>	<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>	<p>exploration and verification.</p>

### Description of Basic Courses

#### Science Grade 1

**Time 40 hours**

This Grade 1 Science course is designed to build a strong foundation in basic scientific concepts through hands-on learning and exploration. Students will investigate living things, materials, natural phenomena, and their environment with simple observations and interactive activities.

The course emphasizes curiosity, observation skills, and critical thinking. Learners will explore topics such as plants, animals, the human body, materials, sounds, the day and night sky, and rocks. Using pictures, experiments, and real-world examples, students develop a better understanding of the world around them and learn to communicate their ideas clearly.



## Learning Time Structure

### Science Grade 1: 40 hours

No.	Unit	Objectives	Time (period)	Score (point)
1	Unit 1 Plants	<ul style="list-style-type: none"> <li>- to identify and name common plants found in their environment</li> <li>- to recognize that plants live in different habitats, such as gardens, forests, waters and trees</li> </ul>	8	15
2	Unit 2 Animals	<ul style="list-style-type: none"> <li>- to identify and name common animals</li> <li>- to identify basic external parts of animals. Ex. head, legs, tail, wings, fins, beak</li> <li>- to name different types of habitats, such as forest, pond, farm, sea and desert</li> </ul>	7	15
3	Unit 3 Ourselves	<ul style="list-style-type: none"> <li>- to identify and name basic external body parts and the five senses: sight, hearing, smell, taste, and touch.</li> <li>- to describe the function of each body part – to match each sense to the correct body part</li> </ul>	5	14
4	Unit 4 Materials	<ul style="list-style-type: none"> <li>- to identify and name common materials in their environment</li> <li>- to describe the properties of materials using simple words. Ex. hard, soft, rough, smooth</li> </ul>	5	14
5	Unit 5 Sound	<ul style="list-style-type: none"> <li>- to identify and describe sound as something we can hear with our ears</li> <li>- to differentiate between natural sounds and artificial sounds</li> </ul>	5	14
6	Unit 6 Day Sky and Night Sky	<ul style="list-style-type: none"> <li>- to identify objects seen in the day sky and night sky</li> </ul>	5	14



No.	Unit	Objectives	Time (period)	Score (point)
		<ul style="list-style-type: none"> <li>- compare the day sky and the night sky using simple observations</li> <li>- describe how the sky changes from day to night and night to day.</li> </ul>		
7	Rocks	<ul style="list-style-type: none"> <li>- to identify and name common rocks found in their environment</li> <li>- to observe and describe physical properties of rocks</li> </ul>	5	14
			<b>40</b>	<b>100</b>



## Description of Basic Courses

### Science: 2<sup>nd</sup> Grade

### Time 40 hours

The Grade 2 Science program introduces young learners to the wonders of the natural world through hands-on activities, guided discovery, and simple experiments. Students explore life, physical, and earth sciences in ways that are meaningful and connected to their everyday experiences. The course encourages curiosity, observation, and critical thinking while developing foundational scientific skills.

Basic concepts of motion are introduced through observing pushes, pulls, and how objects move in different ways. Additionally, the Earth and its resources are explored to help students appreciate landforms, water sources, and the need for conservation and environmental responsibility. Throughout the course, students develop essential scientific skills such as making observations, asking questions, collecting and recording data, using simple tools, and communicating findings through pictures, charts, and discussions. The course aims to create a strong foundation for scientific thinking while making science fun, hands-on, and relevant to their daily experiences.



**Learning Time Structure  
Science Grade 2: 40 hours**

No.	Unit	Objectives	Time (period)	Score (point)
1	Unit 1 Plants	<ul style="list-style-type: none"> <li>- Parts of a plant and their functions</li> <li>- Life cycle of plants</li> </ul>	8	20
2	Unit 2 Living and Non-Living Things	<ul style="list-style-type: none"> <li>- Characteristics of living things</li> <li>- Needs of living things (air, water, food, shelter)</li> <li>- Sorting objects as living or non-living</li> </ul>	8	20
3	Unit 3 Materials	<ul style="list-style-type: none"> <li>- States of matter: solid, liquid, gas</li> <li>- Properties of materials (hard, soft, rough, smooth)</li> <li>- Changing states through heating or cooling</li> </ul>	8	20
4	Unit 4 Light	<ul style="list-style-type: none"> <li>- Light travels in a straight line</li> <li>- Demonstrations using flashlights and objects</li> <li>- How mirrors reflect light</li> </ul>	8	20
5	Unit 5 Soil	<ul style="list-style-type: none"> <li>- Sand, clay, silt, and loam</li> <li>- Characteristics of <b>sandy soil</b>, <b>clay soil</b>, and <b>loamy soil</b></li> <li>- Texture, color, and ability to hold water</li> <li>- Importance of good soil for healthy crops</li> </ul>	8	20
			<b>40</b>	<b>100</b>

### Basic Course Description

#### Science – Grade 3

**Time: 40 hours**

This Grade 3 Science course is designed to spark curiosity and build foundational scientific knowledge in young learners through observation, exploration, and discovery. The course focuses on understanding the natural world, living and non-living things, basic physical science concepts, and the Earth's environment.

Through age-appropriate lessons, learners will explore the basic needs of humans and animals, understand life cycles, examine the properties and uses of materials, and investigate fundamental principles of motion, energy, electricity, and natural resources such as air and the sun. The course encourages hands-on activities, inquiry-based learning, and simple experiments to help learners connect scientific concepts to real-life situations.



**Learning Time Structure**  
Science Grade 3: 40 hours

No.	Unit	Learning Objectives	Time (period)	Score (points)
1	Basic Needs of Animals and Humans	- Identify the basic needs of humans and animals (food, water, air, shelter, clothing) - Explain the importance of each need in daily life	5	15
2	Life Cycles	- Describe the life cycles of common animals (e.g., butterfly, frog) - Compare the life stages of different organisms	5	10
3	Materials	- Identify common materials (wood, metal, plastic, etc.) - Describe properties and uses of materials in daily life	5	10
4	Forces and Motion	- Explain the effects of push and pull on objects - Observe and describe how objects move	5	15
5	Energy	- Identify different sources of energy (light, heat, sound, etc.) - Describe the importance of energy in everyday life	5	15
6	Electricity	- Recognize sources of electricity (batteries, plugs) - Describe simple circuits and the safe use of electricity	5	15
7	The Sun	- Identify the sun as a source of light and heat - Describe the sun's role in supporting life on Earth	5	10
8	Air	- Understand the presence and importance of air - Identify uses of air in everyday life and nature	5	10
			40	190

## Basic Course Description

**Science – Grade 4**

**Time: 40 hours**

This course introduces Grade 4 learners to foundational concepts in life, physical, and Earth sciences. Learners will explore how living and non-living things are classified, the parts and functions of plants and animals, and the properties of materials. The course also covers key physical science concepts such as states of matter, gravitational force, and light, along with a basic introduction to the solar system.

Using an inquiry-based approach, students will observe, investigate, compare, and explain scientific phenomena through engaging activities and real-life applications. Emphasis is placed on developing curiosity, scientific thinking, and communication of ideas through drawing, writing, and speaking. The course also aims to develop skills in simple experimentation, data gathering, and analysis.

By the end of the course, learners are expected to describe key scientific concepts accurately, conduct basic investigations, and demonstrate an appreciation of science in everyday life and the environment.



**Learning Time Structure**  
Science Grade 4: 40 hours

No.	Unit	Learning Objectives	Time (period)	Score (points)
1	Classification of Living Things	- Identify characteristics of living and non-living things - Classify living things based on observable features	4	10
2	Plants	- Describe the main parts of plants and their functions - Explain how plants make food through photosynthesis	4	10
3	Animal	- Classify animals into groups (vertebrates/invertebrates) - Describe the basic needs and life cycles of animals	4	10
4	Materials	Identify different types of materials and their properties - Compare materials based on physical characteristics	4	10
5	States of Matter	- Describe the three states of matter and their properties - Explain how matter changes state with heat	4	10
6	Gravitational Force	- Describe the effects of gravity on objects - Demonstrate understanding through simple investigations 3.5 8	3.5	8
7	Light	- Explain how light travels and interacts with objects - Identify materials as transparent, translucent, or opaque	3.5	8
8	Solar System	- Name the planets in the solar system in order - Describe basic characteristics of planets and the Sun	3	7
	Assessment / Tests 1&2	- Assess knowledge and skills gained from all chapters - Apply scientific understanding in written and practical formats 4 16	4	17
	<b>TOTAL</b>		<b>40</b>	<b>100</b>

## Basic Course Description

Science – Grade 5

Time: 40 hours

In this course learners should know the important role of Science 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.

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. Students 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 living things and processes of life, life and the environment, properties of substances and forces and motion.



**Learning Time Structure**  
Science Grade 5: 40 hours

No	Unit	Time ( Period )	Score ( Point)
1	Unit 1: Living Things and the Environment	5	14
2.	Unit 2: Heredity	5	14
3.	Unit 3: Changes in Matter	5	14
4.	Unit 4: Forces	5	14
5.	Unit 5: Sound	6	14
6.	Unit 6: Stars	7	14
7.	Unit 7: Water	7	14
	Total	40	100

## Basic Course Description

### Science – Grade 6

**Time: 40 hours**

This course is designed to provide Grade 6 learners with a strong foundation in scientific knowledge, skills, and attitudes necessary to understand and explore the world around them. Using inquiry-based and hands-on approaches, students are guided to observe, investigate, and make sense of natural phenomena through real-life contexts.

The topics covered include food, nutrition, and digestion; separation techniques; static electricity; electric circuits; light; eclipses and space technology; rocks; wind and monsoons; and natural disasters and the greenhouse effect. Through these lessons, learners will gain a deeper understanding of both physical and Earth sciences, emphasizing cause-and-effect relationships and scientific reasoning.

The course also fosters the development of scientific process skills such as observing, classifying, predicting, measuring, recording data, and forming conclusions. Students will be encouraged to ask questions, explore problems, conduct simple investigations, and present findings using appropriate scientific language and tools.

By the end of the course, learners are expected to demonstrate not only factual knowledge but also an appreciation of science in solving real-world problems and making responsible decisions related to health, the environment, and technology.



**Learning Time Structure**  
Science Grade 6: 40 hours

	Unit	Learning Objectives	Time (period)	Score (points)
1	Food, Nutrition and Digestion	- Identify the major nutrients in food and their functions - Describe the process of human digestion	4	10
2	Separation Techniques	- Explain the principles behind common separation methods - Apply appropriate techniques to separate mixtures	4	10
3	Static Electricity	- Describe how static electricity is formed - Identify the effects and uses of static electricity	3	7
4	Electric Circuits	- Construct simple electric circuits - Differentiate between series and parallel circuits	3	7
5	Light	- Investigate how light travels and interacts with materials - Explain reflection, refraction, and shadows	4	10
6	Eclipses and Space Technology	- Describe how solar and lunar eclipses occur - Identify the uses of modern space technology	3.5	8
7	Rocks	- Classify different types of rocks - Describe how rocks are formed and changed over time	3.5	8
8	Wind and Monsoons	- Explain the causes and effects of monsoons - Describe how wind patterns affect climate	3	7
9	Natural Disasters and Greenhouse Effect	- Identify types of natural disasters and their impacts - Explain the causes and effects of the greenhouse effect	3	7
	Assessment / Tests 1&2	- Assess knowledge and skills gained from all chapters - Apply scientific understanding in written and practical formats 4 16	4	16
	<b>TOTAL</b>		<b>40</b>	<b>100</b>

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