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# **Culture and Community Cultural Mathematics Language**

**Elementary  
Teacher Guide**



DEPARTMENT OF EDUCATION

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**Issued free to schools by the Department of Education**

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**Organisations**

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**Divisions of Education**

North Solomons Province, West Sepik Province, Oro Province, West New Britain Province, Madang Province, Central Province, National Capital District, Eastern Highlands Province, Western Province, Milne Bay Province, Morobe Province.

**Trial schools**

Sandaun Province: St Martin Elementary, Waromo Elementary

Oro Province: Monge Elementary, Sumbiripa Elementary, Koipa Elementary

Madang Province: Lutheran Day Elementary, Dan Ben Elementary, Kusbau

Elementary, Gum Elementary, Holy Spirit Elementary, Yabob Elementary

West New Britain Province: Kiliu Elementary, Catholic Elementary, Kwalakesi Elementary.

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## **Inservice units**

A set of Inservice units have been written to support the implementation of the Elementary reform curriculum.

These units are:

- self-instructional, so you can access them according to your needs when and where suits you
- self-paced, so you can study at your own pace
- outcomes-based, so you can experience outcomes-based approaches to education
- based on adult learning principles of learning, doing, sharing and reflecting
- practical and related to your daily work as a teacher or a supervisor,
- collegial, so you can learn together in small groups, whole school or cluster settings
- accredited with PNG Education Institute, so you can improve your qualifications
- designed to promote best practice, so you can effectively implement the curriculum
- applicable across Elementary syllabuses.

These units integrate principles contained in the *National Curriculum Statement* (2002) and the *National Assessment and Reporting Policy* (2003).

These units can be used in conjunction with this teacher guide.

## **Secretary's message**

Elementary curriculum is community-based and builds upon the skills and knowledge the children already have in their own language and culture. The teachers in Elementary schools come from the local community and speak the same language as the students.

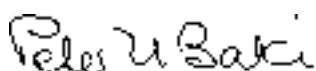
This teacher guide is for all Elementary teachers teaching Elementary Prep to Elementary 2. The three syllabuses for Culture and Community, Cultural Mathematics and Language identify the outcomes. The teacher guide gives more information about what to teach and the ways of implementing the three syllabuses. The teacher guide is supported by inservice units that have been written to assist the implementation of the Elementary syllabuses and provide valuable information about teaching.

I also encourage teachers to work closely with members of their school communities to ensure that local community needs are met.

Important reforms to our education system will only be successful with the support and understanding of teachers and their involvement with the community. This teacher guide contains detailed information about appropriate subject content and a broad range of ideas and strategies that can be used in an integrated approach to teaching and learning.

Teachers are encouraged to read the guide carefully and become familiar with the content of each of the three syllabuses as specified in the elaborations.

I am encouraging Elementary teachers throughout the country to try out the ideas and strategies that they believe will be effective in their schools with their students. Teachers have the right to adapt, modify and amend these ideas to suit their situations and the communities in which they are serving.



**PETER M. BAKI, CBE**  
Secretary for Education

## **Abbreviations**

<b>EP</b>	Elementary Prep
<b>E1</b>	Elementary 1
<b>E2</b>	Elementary 2
<b>KWL</b>	Know, Want to know, Learned
<b>Prep</b>	Preparatory Grade
<b>SRE</b>	Shared-reading experience

# Introduction

This teacher guide for Elementary Prep to Elementary 2, in conjunction with the three new syllabuses: *Culture and Community*, *Cultural Mathematics* and *Language*, will help you to plan and teach the Elementary community curriculum. The ideas and examples in this book will help you think of other relevant ideas for your own community to make teaching and learning interesting and enjoyable. You are encouraged to use the guide to help you in your efforts to produce good citizens of Papua New Guinea.

## What is Elementary education?

Elementary education recognises and respects the language and culture of the community. Elementary education helps students develop pride in their culture and language. It consists of three years of education for students within their communities using a language the students already speak. Students learn the knowledge, skills and attitudes that are important in that community.

Elementary classes should have an integrated community curriculum that is organised into the following subjects:

- Culture and Community
- Cultural Mathematics
- Language.

## Culture and Community

The Culture and Community Syllabus recognises and respects the languages and cultures of the community. It fosters students' pride and appreciation in their arts, beliefs and values. It deals with how people live and how the conditions in that environment affect their lives. The students learn knowledge, skills and attitudes that are important in that community.

## Cultural Mathematics

Mathematics at the Elementary level of schooling is based on the everyday mathematics used in the community. Teachers need to provide opportunities for relevant and purposeful learning of mathematics in real-life contexts. The students need to develop their understanding of simple mathematical concepts and skills that are useful in real-life situations.

## Language

The Elementary curriculum recognises and respects the languages of students from different communities by providing a three-year initial education for students in their own communities using a language that the students already speak fluently. Students need to acquire language skills and confidence in order to learn effectively in other subjects. Students need to learn to use language in different ways from expressive and artistic forms to using language to find information and acquire knowledge.

## **Links with different levels**

The three Elementary subjects set the foundations for learning for the subjects in Lower and Upper Primary. Lower Primary subjects build upon the outcomes in Elementary, which in turn link to outcomes in Upper Primary as shown below.

<b>Elementary subjects</b>	<b>Lower Primary subjects</b>	<b>Upper Primary subjects</b>
Culture and Community	Environmental Studies Community Living Health Arts Physical Education	Science Social Science Making a Living Arts Personal Development
Cultural Mathematics	Mathematics	Mathematics
Language	Language	Language

## **Links with other subjects in Elementary**

In Elementary classes, the lessons will be more interesting and meaningful when activities in one subject are integrated with activities in other subjects. One way to manage this integration is to develop integrated units of work based on a theme that will be taught for a whole week or two weeks.

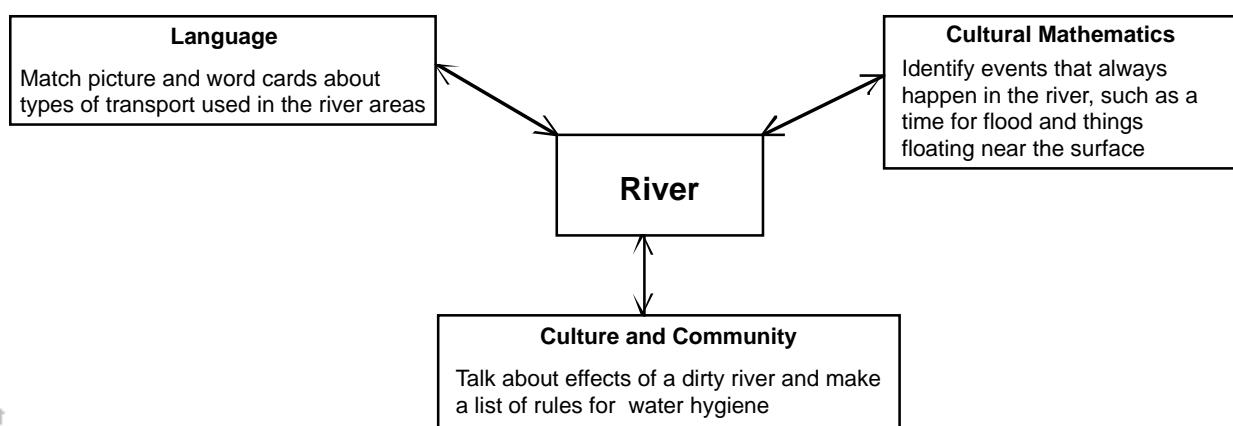
Here are some examples of Elementary Prep activities, which could be used in line with the following learning outcomes to teach a theme, *River*.

### **Outcomes**

Language: P.2.3. Recognise that writing and pictures are used to convey meaning for different purposes

Cultural Mathematics: P.5.1 Identify events that always happen regularly in the community

Culture and Community: P.3.3 Identify things they do that can encourage nutrition, personal safety and hygiene



## What is a community curriculum?

A community curriculum is one which is locally relevant. It is made up of the knowledge, skills and attitudes that the local community wants their children to learn. It enables students to continue to develop their understanding of local languages and cultures. It means teaching in an integrated, community-centred way in a language that the students speak. It uses student-centred activities and is based on themes. The Elementary syllabuses contain the outcomes that the students will learn. Achievement of the outcomes will prepare students for Grade 3 in Primary schools.

### Community calendars

All communities in the country take part in agricultural, social and cultural activities at certain times of the year. These activities make up a village calendar. For Elementary education to be community-based as recommended, it should respect and take account of the local village calendar. The calendar is based on the real cycle of events in the local community that happen throughout the year. The curriculum is aimed at making students aware of their calendar. Teachers need to observe and plan school activities to fit with events on the calendar.

Teachers need to gather information about their communities to help them and the Community Curriculum Committee to develop a community events calendar. This calendar is the basis for planning the community curriculum and provides information about when to teach certain themes for the year. Work with members of your Local Curriculum Committee and your cluster group to make a community calendar. When preparing the community events calendar, list the significant events that occur during different times of the year in your area. For example, if there is a special time for planting crops or harvesting, try to teach that theme at that time of the year when it is actually happening. Make sure your program matches your community's activities. Plan your teaching around the community's activities.

Teachers only have to prepare one calendar each year. Make sure you keep it up to date with the small events that happen in your community. Much of the same information can be used the next year.

You will find an outline of the process for making or planning your community curriculum on page four. More explanation and examples are provided in this teacher guide to help you plan and implement your community curriculum.

**A process to make the community curriculum program**

**Step 1:** Develop a community calendar

Gather information from the community. Work with the Curriculum Committee to find out what cultural events and community knowledge, skills and attitudes need to be taught in the Elementary curriculum. Use the information to develop the community calendar.

**Step 2:** Map and organise outcomes

Select a small number of outcomes from the syllabuses that link naturally together. Another way is to look at the community calendar and pull out the outcomes from Culture and Community and Cultural Mathematics to match the themes in the calendar.

**Step 3:** Identify topics or themes that link the selected outcomes

Identify relevant topics or themes that link the outcomes together and match them with events on the community calendar. You then develop a unit of work based on those outcomes that would enable you to teach for one or two weeks.

**Step 4:** Develop a yearly program

Organise your themes according to the timing of community activities on your community calendar.

**Step 5:** Develop the term programs using themes

Develop each theme so that it includes relevant community activities.

**Step 6:** Write teaching and learning plan

Develop teaching and learning activities and assessment tasks for each theme for all three subjects: Culture and Community, Cultural Mathematics and Language.

**Step 7:** Develop weekly programs

Sequence the activities in the order of how you would like to teach them and record in your weekly program.

**Step 8:** Write lesson plans for each lesson

Write lesson plans for each activity or lesson in your weekly program.

# Key features

## The nature of Elementary education

Elementary education is community based and requires teachers who are dedicated, creative, fluent in the students' vernaculars and respectful members of the community.

Some features of Elementary education appear below.

- Elementary education provides three years of formal education for students, from Elementary Prep to Elementary 2.
- The language of instruction at this level is the students' vernacular.
- The teachers speak the same vernaculars as the students.
- Community members play active roles in assisting the teachers to develop a community-based curriculum.
- Teaching and learning materials mostly come from the local environment.
- The curriculum is integrated and based on local community events and activities.
- Oral English is introduced in term three of Elementary 2.

## Curriculum principles

The Elementary curriculum is based on three learning principles.

- We learn best when we build new learning on what is already known.
- We learn well when we recognise an immediate use or need for what is to be learned.
- We use ideas and skills in a coordinated way to solve problems.

## Benefits for students

Benefits for students when they begin education at Elementary level include the following:

- Students start education early at the age of six years.
- Students learn to read, write, speak and listen in their vernaculars.
- All of the curriculum is taught in the students' vernaculars and based on what the students already know.
- There is a better opportunity for students to perform well in their school work when their languages and cultures are valued and seen as a benefit in formal learning.

## Catering for diversity

### Students with special needs

Many students have special needs including those who are gifted or those who are disadvantaged physically, emotionally or intellectually. Provide opportunities in the curriculum for students with special needs so that they can participate in a variety of learning experiences to develop appropriate life skills. Use acceptable terms to describe people with disabilities, such as students with speech, sight or hearing impairment or students with a physical or intellectual disability.

## **Inclusive curriculum**

Students are surrounded with many situations, experiences and messages that are contained in the curriculum. Students use these messages to help them understand their world and form opinions about themselves and others. It is important that these messages and experiences lead students to understand that they all have a right to participate in any curriculum activity regardless of their gender, ability, language group, culture or where they come from. An inclusive curriculum:

- supports students' use of their vernacular language and encourages teachers to use local materials and relate teaching to real-life experiences
- helps students to value and appreciate different roles, responsibilities and obligations that males and females play in their society
- values and places equal emphasis on female and male experiences in the curriculum
- recognises that students come from many different cultural and language backgrounds and caters for these differences
- provides a range of learning experiences to cater for students from different living environments
- recognises that everyone belongs to a cultural group and that all cultural groups should be treated with respect
- allows students to appreciate, respect and participate where possible in cultural activities from other cultures
- promotes a safe, healthy, happy and non-threatening learning environment
- provides opportunities for students to apply problem-solving and thinking skills in a range of learning situations.

## **Elementary syllabuses**

The three Elementary syllabuses are *Culture and Community, Cultural Mathematics* and *Language*. All three syllabuses have a common format. The following points outline the syllabus contents:

- the content of the three syllabuses is presented in strands and substrands
- the strands and substrands are the same from Elementary Prep to Elementary 2
- the knowledge, skills, attitudes and values that the students should achieve are written as outcomes
- each outcome in the syllabuses is a specific statement that identifies the knowledge, skills or attitudes all students should demonstrate at a certain grade
- each outcome in the syllabuses has a set of indicators. The indicators give examples of what students will be able to do, know and understand at a particular grade to indicate the achievement of outcomes.

### Some aspects of outcomes and indicators

The outcomes and indicators:

- give teachers flexibility to write units of work and programs to suit local conditions and individual student needs
- help teachers assess and report students' achievements
- allow students' achievement of the outcomes to be described in consistent ways
- help teachers monitor students' learning
- help teachers plan their future teaching programs.

### Elementary subjects, strands and substrands

Subject	Strands	Substrands	Emphasis
Culture and Community	Me and My Environment	Using and caring for resources Exploring environments Changes in natural and human communities	The emphasis in Culture and Community is for students to respect, appreciate, recognise and take pride in their culture, arts, beliefs and values. Students develop knowledge, skills, attitudes and values that will help them to care for their environment and promote personal, school and community health.
	Me and My Community	Relationships Meeting needs Living and working together Events and ceremonies Arts	
	Me and My Health	Moving and growing Games and activities Hygiene, nutrition and safety	
Cultural Mathematics	Space	Space Shape	The emphasis in Cultural Mathematics is for students to apply modern and cultural mathematical concepts and skills in their daily lives. This should be done in purposeful and meaningful contexts with the students.
	Measurement	Measuring and estimating Area Time	
	Number	Counting Mathematical language Operations Money	
	Pattern	Patterns	
	Chance	Chance and information	
Language	Speaking and Listening	Production Skills and strategies Context and text	The emphasis in Language is for students to use the language that they already speak fluently to acquire knowledge in formal learning. Students need to acquire language skills in speaking and listening, reading and writing to communicate in a variety of ways to express themselves in different situations.
	Reading	Production Skills and strategies Context and text	
	Writing	Production Skills and strategies Context and text	

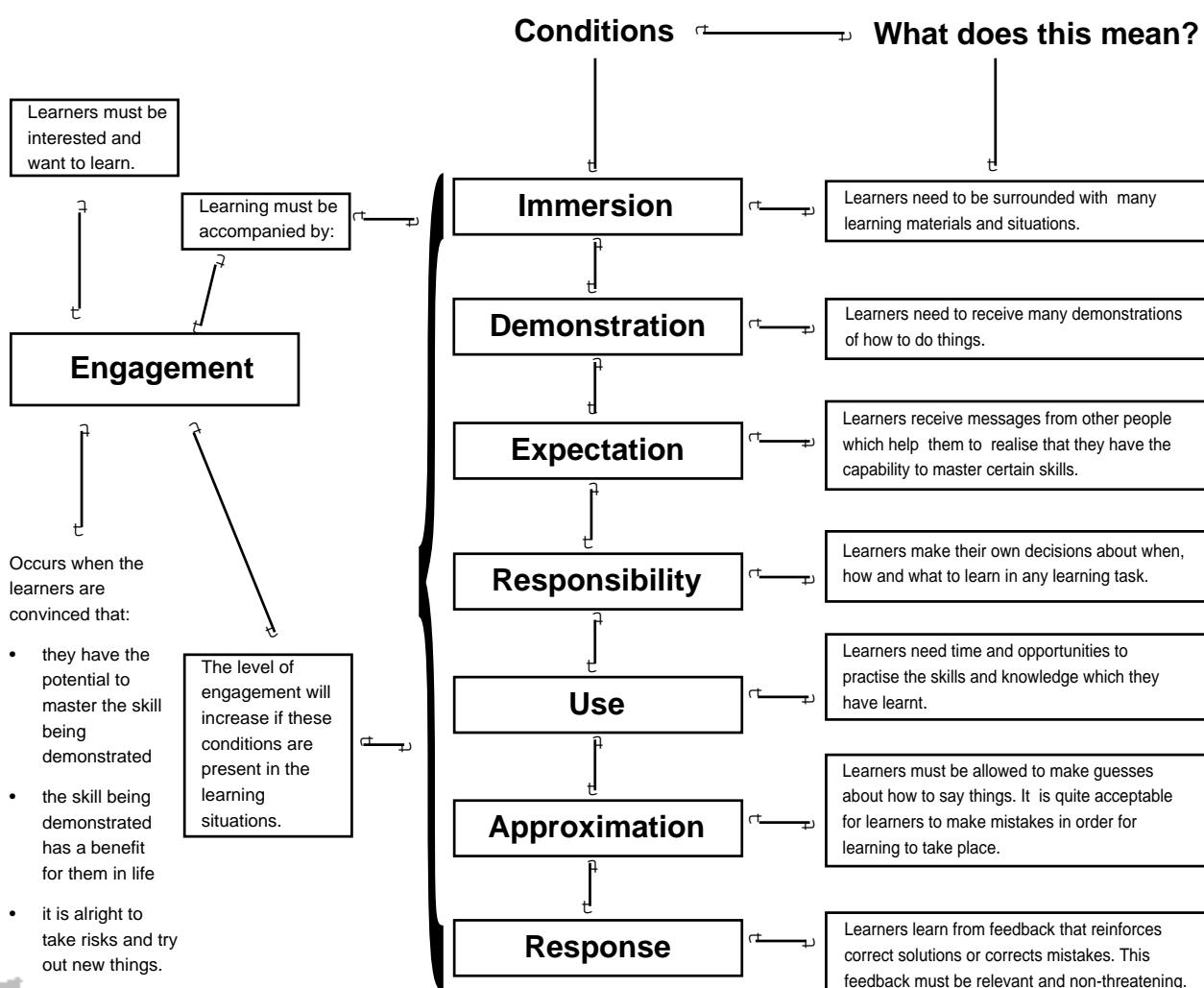
## Teaching and learning

Elementary teaching is integrated and based on learning that is relevant to the students' lives and the values in the communities in which they live. Teachers are encouraged to create enjoyable classroom environments and use a variety of teaching and learning strategies that will help the students acquire relevant skills, knowledge and understanding.

Students learn best when the learning activities are done in a natural way. Natural learning is to learn things in the same way as we learn things in everyday life outside the classroom. The way babies learn to talk and walk is a very good model of natural learning.

The model of natural learning shown below indicates that learning conditions are similar from culture to culture. When you understand all the conditions of learning you can provide natural learning situations for your students in your classroom.

### Conditions of learning



Source: Cambourne, B 1988

## Learning conditions and natural learning

Conditions	What does this mean	In the learning situation
<b>Immersion</b> To be surrounded by something	Children at home are surrounded with many meaningful, relevant and real-life activities. These relevant activities help the children to naturally develop knowledge, skills, attitudes, understanding and values that are appropriate for life in their communities.	Surround students with learning materials such as: <ul style="list-style-type: none"><li>• labels, weather charts, community events calendar</li><li>• mathematics linking cubes, objects and shapes</li><li>• pictures, kits and charts</li><li>• picture books</li><li>• big books and small companion reading books</li><li>• charts of stories written in class</li><li>• students' own stories</li><li>• word-wall charts and posters.</li></ul> Allow students to use these materials in small group work. This will allow them to interact with each other in natural ways by asking questions and discussing and developing ideas together.
<b>Demonstration</b> To be shown how to do something	At home everyone talks to the baby. They show the baby how to talk. By doing this, the baby imitates the different sounds that form speech and therefore learns how to talk. The children are shown what to do in singing and other traditional activities such as making their own decorations and bilas. They are shown how to wear the headdresses and grass skirts or tapa cloth. They see sample decorations and bilas made by other people around them. This enables the children to see that it is possible to learn these skills and show interest to participate.	Provide students with many suitable demonstrations such as: <ul style="list-style-type: none"><li>• reading big books and other suitable information texts to them</li><li>• writing different types of texts with the students as a class, in small groups, in pairs and alone</li><li>• traditional dance steps</li><li>• solving simple number problems. Demonstrations should be of value to motivate students to want to learn.</li></ul>
<b>Expectation</b> To wait and look forward to when something is going to take place	Family members and friends look forward to their children learning to talk during their early years of development. It is natural for family members to give positive encouragement during the development period.	We expect the students to acquire literacy, numeracy, social and interpersonal skills. Teachers should provide a learning environment where students feel safe, yet challenged when they see that it is possible to apply these skills in their everyday living.
<b>Responsibility</b> To be responsible for own learning	Children must learn to put on their own clothes if they want to dress properly. They must learn what garment goes at the top of the body and what to wear around the waist.	Encourage students to choose whether to draw a picture of a house or make a model house. This helps the students learn to make choices and take risks when they make decisions.
<b>Approximation</b> Nearly correct or almost right	When babies try to talk, they make guesses about how to say words. The 'baby talk' that babies make enables them to practise speaking what they hear. The beginning speech that babies make is not correct but they can be understood.	Students must be allowed to use 'almost correct' words in speaking and writing activities when they participate in Culture and Community, Cultural Mathematics and Language, as long as what they say or write makes sense.
<b>Response</b> To reply, react or answer	When children learn to talk, family members help them by encouraging and correcting them. The feedback from family members gives children encouragement to try to talk or put to use new skills that they are acquiring.	Honest and specific feedback is needed by the students to help them in their learning. Try to describe what the students have done well such as, 'Your drawing of the dog looks real!' Talk to the students about their efforts. This helps them feel good about themselves and encourages them to work hard.

<b>Conditions</b>	<b>What does this mean</b>	<b>In the learning situation</b>
<b>Engagement</b> To be involved, to do it	Children learn through taking part in and doing the actual activity. For example, a child learns to ride a bicycle by getting on a bicycle and riding it. If practice makes you better at an activity, then more practice should make you even better still.	Make learning situations interesting and meaningful. Make the learners feel that they are capable of mastering the skills and knowledge being demonstrated. If they see that the skills will be useful to their lives, they will take risks and try to learn them.
<b>Use</b> To put to service and apply	Children are allowed time to put to use the skills that they acquire in their growth in real meaningful situations.	Students need time and opportunity to use and practise the skills that they acquire by participating in real community activities such as singsing and making bilas and decorations.

## Teaching and learning approaches

### Student-centred approach

A student-centred approach to teaching and learning is when the students are the focus of the learning activities. The students assume more responsibility for their learning in this type of learning environment. The table below provides suggestions for the roles of students and teachers in a student-centred approach.

### Student and teacher roles in a student-centred approach

Students	Teacher
<ul style="list-style-type: none"> <li>do more talking than the teacher</li> <li>take part in many different activities that relate to real-life experiences to develop critical thinking and understanding</li> <li>discover new information on their own and with guidance from the teacher</li> <li>use an inquiry learning approach to explore a topic</li> <li>frequently work in small groups to cooperate with peers</li> <li>use real objects to support learning</li> <li>choose activities and topics for their projects</li> <li>have a chance to correct their efforts</li> <li>have a chance to evaluate their efforts</li> <li>choose who they will share the learning situation with.</li> </ul>	<ul style="list-style-type: none"> <li>plays the role of a facilitator</li> <li>provides a rich learning environment for students' learning</li> <li>develops a supportive atmosphere in the classroom</li> <li>plans learning activities that will require the students to use their senses: sight, sound, smell, touch and taste</li> <li>treats students with respect</li> <li>talks with students rather than at them</li> <li>shows faith in the students' ability to learn</li> <li>lets the students proceed at their own pace</li> <li>praises effort rather than the students' characters such as, 'You have written a long story', not 'Good girl' or 'Good boy'</li> <li>accepts students' efforts and shows them how to improve further</li> <li>is aware of what the students do, how they feel and respond with understanding</li> <li>has the learning task prepared and organised</li> <li>is patient and gentle in his or her approach.</li> </ul>

### Multigrade teaching

Usually, teachers in a school would have one grade to teach for the whole year. In many communities the enrolments are low, so schools may have multigrade classes. This means that two or three different grades are grouped together and supervised by one teacher. The classes are made up of students of different ages, abilities, interests and needs grouped together for learning.

A successful multigrade classroom provides opportunities for students to work in small groups, pairs, individually and as a whole class. The group work must have a purpose. One way of grouping is in different ability groups based on the real needs identified. If the students are experiencing difficulties, small groups will best meet the needs. The tasks provided for each group needs to be challenging. The students must be clear about what they are expected to do and have them practise the skills while the teacher assists particular groups.

Students in mixed ability groups can work on themes, topics or areas of interest in learning centres. Learning centres could have:

- a large table for group activities
- a storage area for materials like mathematics cards and a variety of stories and books
- areas for displays for each of the subjects and for students' work
- work corners where students can work as individuals, pairs or small groups.

Organising students in mixed ability groups is also appropriate because students with different abilities and personalities often are able to help each other. Teachers need to spend time and effort in planning and preparing materials at different levels.

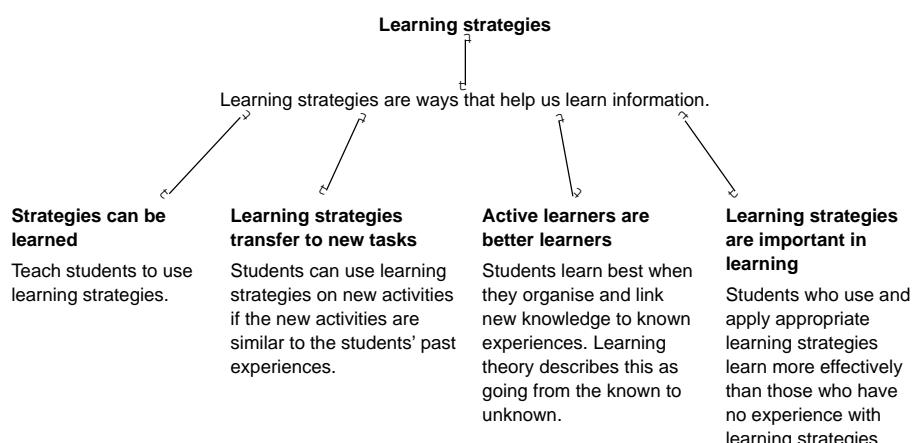
An integrated approach using themes is recommended for multigrade classes. The teaching and learning approach should be student-centred. Teachers need to:

- identify outcomes that will bring main ideas from the different grades and subjects together and then decide on a theme that links the outcomes together
- develop teaching and learning programs that outline different activities for the class: EP and E1, E1 and E2 or EP and E1 and E2
- have one theme and have students work on activities according to their grade levels or individual needs.

For example, if students are going out to investigate their resources in their local environment for different types of houses, then one group can:

- EP: Count and record the number of houses in their village
- E1: Classify the houses under the headings 'traditional' and 'modern' according to the materials from which they are made
- E2: Classify and describe houses according to their uses.

It is most appropriate for multigrade classes to remain together as a group for at least two years with the same teacher constantly assessing the progress and overall learning of the students.



## Examples of learning and thinking strategies

It is our responsibility to help students learn how to learn and to apply reasoning skills in learning. Helping students learn how to learn and think is like showing a trainee carpenter how to use different carpentry tools. The trainee carpenter is expected to choose what tool to use, where to use it and how to use it. This decision must be made by the trainee in order for the task to be carried out effectively with quality results. Students likewise need to be assisted to learn strategies that will help them learn.

## Examples of learning strategies and learning situations

Strategy	Learning situations
Quickly look at the material or skim it, to decide if it is suitable	Students view materials such as pictures, charts, posters and books to work out if they are suitable and useful to use.
Plan what to do	Students, with the teachers' help, decide how to accomplish the learning task. For example, does it require them to work in groups to make a large class mural to represent ideas, write ideas on charts, make posters or role play.
Select specific information	Teachers will need to help students to look for specific information on posters, charts, diagrams, pictures and written texts such as locating key words and main ideas.
Plan when, where, and how to carry out the learning	Students work with the teacher to decide how they will approach a task. The teacher encourages students to make own choices about activities such as when and where to go for the excursion.
Think while listening Think while reading	Students ask themselves questions as they are listening or reading to check their own understanding.
Think while speaking Think while writing	Students ask themselves questions about their own oral and written production while these activities take place.
Self-assess	Students check back and reflect on what new knowledge they have learned and where they need some help.
Grouping	Students sort objects or ideas into groups according to their characteristics or features.
Use background knowledge	Students relate new concepts to known knowledge to assist understanding.
Sequencing	Students sequence ideas and events in order.
Learning from or through pictures: visual learning	Students use pictures to learn new information or solve a problem.
Predict	Students guess what might happen next or predict upcoming information.
Use context clues	Students use given information to understand new information.
Ask questions	Students ask peers or teacher questions to gain additional information or clarification.
Work with peers	Students work with peers and help each other to complete tasks or solve problems and give and receive feedback on their work.
Think positive	Students have confidence in themselves, take risks and try out new methods and ideas.

Before teaching students to use learning strategies, keep in mind the following points:

- the type of activities or tasks that you plan for the students to do will determine the type of strategy to use
- teach the students one or two strategies and let them feel confident using these before introducing more
- be sure to use simple activities or tasks at the initial stage when introducing the strategies to the students
- be sure that the strategy introduced has some connection to the students' past experiences
- consider whether the strategy introduced could be applied in other learning situations.

Learning strategies used in Elementary should focus on concrete tasks.

For example, students might use a *KWL* strategy when they work on a topic in Culture and Community such as 'What types of plants grow well in what season?'

**KWL strategy**

<b>K</b> (what I already <i>know</i> )	<b>W</b> (what I <i>want</i> to know)	<b>L</b> (what I have <i>learned</i> )
<b>What I know about food, plants and seasons</b>	<b>What I want to know about food, plants and seasons</b>	<b>What I learned about food, plants and seasons</b>

Apply the following steps to get the students to use the *KWL* strategy.

1. Organise students into small groups.
2. Tell students the lesson topic.
3. Ask students in small groups to list what they already know about the topic.
4. Get groups to share their ideas with the class as a whole.
5. Ask students to talk about what they want to know about the topic. If students are only beginning writers, invite a community member to come in and scribe for the students.
6. Students, with help if needed, complete the first two columns as they work with this topic.
7. The third column is completed at the close of the unit.

# Assessment, recording and reporting

Assessment and reporting practices described here are detailed in the *National Assessment and Reporting Policy* (2003) and in other assessment support materials produced by the Department of Education.

## Assessment

Assessment is the ongoing process of identifying, gathering and interpreting information about students' achievement of the learning outcomes. The outcomes for Elementary are described in the three subject syllabuses.

Teachers record evidence of students' learning and use it to make judgements about students' achievement of the learning outcomes. To ensure that assessment is fair and balanced, teachers should use a range of assessment methods including:

- observing and recording details of students' demonstrations of process skills and their performances on particular tasks
- asking open-ended questions that students respond to orally and in writing where appropriate
- keeping portfolios of students' work.

Teachers should provide opportunities for students to assess their own learning through self-assessment and the learning of others through peer assessment. The teacher and students develop simple assessment criteria together. The purpose of assessment is to improve student learning.

## Assessment in Elementary

Assessment in Elementary is the continuous process of finding out what the students have learnt. When the students are assessed, the teacher can decide what must be taught next. Assessment includes observing and recording students' learning during classroom activities. It is a process of:

- observing students at work
- conferencing, talking and questioning the students about their learning to find out how they are thinking and feeling and their attitudes towards their learning
- looking at students' work samples to find information about what students can do
- identifying further teaching and learning needs from that information
- recording what the students can do and how they do it
- planning for future learning using the assessment information
- reporting or communicating with parents and guardians about their child's learning.

All assessment and recording must link back to the outcomes. Teachers must decide when students have achieved each outcome.

All Elementary teachers need to gather information about students' learning and develop classroom programs based on this information. The quality of classroom programs, and therefore the learning of students, depends on the quality of the assessment.

Continuous assessment for young students is essential. Their knowledge and skills are continually developing as they learn more. It is important for teachers to be aware of what the students know, can do and understand. When this information is known about the students in the class, programming can be made more relevant and meaningful and should match the students' needs.

### **Assessment methods**

Assessment methods are ways that teachers can collect information about students' learning. Teachers will use a range of different assessment methods or ways of collecting information throughout the day. Assessment makes use of a variety of tools and processes including the following three main assessment methods outlined below.

<b>Assessment methods</b>	<b>What does this mean?</b>	<b>Why is it important?</b>
Observation	Looking at and listening carefully to students to make an assessment about what each student knows, understands and can do. The teacher asks questions and observes how they help each other to complete a task.	The teacher needs to observe individuals or groups of students to gather information about: <ul style="list-style-type: none"><li>• their ability to organise themselves to start a learning activity</li><li>• their understanding of the content of the learning task</li><li>• how the students are thinking</li><li>• their leadership skills</li><li>• their social skills</li><li>• their ability to work with others.</li></ul>
Conferencing	Discussion with students that involves talking and questioning individuals, small groups or the whole class about their learning. This is a good way of finding out what the students know (knowledge), how they can do the task (skills) and how they feel about what they are learning (attitudes).	Conferencing helps the teacher gather information about: <ul style="list-style-type: none"><li>• what a student knows, can do and understands</li><li>• the students' attitudes to learning</li><li>• how the students get through the process of learning a new skill.</li></ul>
Studying work samples	The teacher thinks about and examines work samples from students. Work samples can be written tasks on paper, small chalkboards or slates, mathematics work, drawings or models.	Studying work samples helps the teacher to assess: <ul style="list-style-type: none"><li>• the students' levels of knowledge and understanding of the learning taking place</li><li>• the students' thinking skills and their ability to bring their own ideas and be creative</li><li>• how much time and effort the students used to do the piece of work</li><li>• the skills the student has used to produce the work</li><li>• if the work meets the outcome of the task.</li></ul>

## Record keeping

Teachers need to keep or collect many different types of records. Some of the most important records you must keep are those showing the students' progress or achievements. These are called assessment records.

Assessment records must describe the students' achievements of the learning outcomes from observations, conferencing and studying students' work samples.

Teachers must keep accurate records of students' achievements so that they can plan and program for future learning. Recording methods will include:

- journals, diaries or anecdotal notes
- portfolios
- progressive records
- checklists
- work samples with comments written by the teacher.

Recording methods	What does this mean?
Journal, diary or anecdotal notes	<p>Teachers write notes in a book describing for each student, their:</p> <ul style="list-style-type: none"> <li>• development</li> <li>• behaviour</li> <li>• special interests and talents</li> <li>• special needs or help required</li> <li>• social skills or ability to share and cooperate when learning</li> <li>• important achievements.</li> </ul> <p>The notes should include date and time and you can have a page or two for each student.</p>
Portfolios	<p>A portfolio is a file or folder of each student's writing, drawing or pieces of work done for the whole year. The file with work samples will give teachers a clear idea of the achievement and progress of each student. It will also be good evidence for parents, other teachers and the students when it comes the time for reporting.</p>
Progressive records	<p>The teachers can record ongoing observation notes about students' progress:</p> <ul style="list-style-type: none"> <li>• after watching them at work</li> <li>• having a conference with them</li> <li>• from studying a student's work samples.</li> </ul>
Checklists	<p>A checklist is one way to record who has achieved what you wanted them to learn and who still needs help. It is a quick and efficient way of recording specific information that the teacher has observed or found out when conferencing or studying a work sample. Students can record their assessments of their own and others' work using simple checklists. First they need to be taught the skills of observing each other using simple assessment criteria and being shown how to report in positive ways.</p>
Work samples with comments written by the teacher	<p>Studying work samples involves collecting students' work and then thinking about what it tells you about the students' learning. Work samples include:</p> <ul style="list-style-type: none"> <li>• writing</li> <li>• drawings</li> <li>• art work</li> <li>• Mathematics models such as three-dimensional shapes or patterns.</li> </ul> <p>Teachers need to focus on what the student has done, not whether or not the work was completed.</p>

Below are some of the examples of manageable recording methods. Teachers will need to read and explain peer assessment to students and show them how to complete the forms.

**Students' observation checklist for a talking activity**

Name of student:	Observer's report:	
Was the child talking loudly enough for everyone to hear?	Yes	No
Was the child looking at the class?	Yes	No
Was the talk interesting?	Yes	No
Did the other students ask questions?	Yes	No
Is there anything else you would like to report?	Yes	No

**Sample conferencing checklist**

Class: E2

Key: ✓ means the student has completed the task satisfactorily  
X means the student has not completed the task satisfactorily

Date	Name	Task 1	Task 2	Task 3	Comments
		Copying spelling words from the blackboard	Writing a sentence describing an activity	Correct spelling of name	
23/05/02	Karo Mark	✓	X	✓	Needs practice using describing words

**Social skills checklist**

Name	Listens to others	Responds when spoken to	Can stay on tasks	Takes turns	Respects others' opinions	Helps others if needed	Self-confident	Shows sense of humour
Max Becker	✓	✓	X	✓	✓	✓	X	✓

Teacher's comments:

## **Sample records of observation notes**

<b>Subject: Culture and Community</b>		<b>Year 2003</b>		
<b>Class: E1</b>	<b>Term 1</b>	<b>Term 2</b>	<b>Term 3</b>	<b>Term 4</b>
Name	Nakula Kila	.....	.....	.....
Date	25/05/03	.....	.....	.....
Comments	Made a toy canoe, joining each piece neatly. The canoe floated when tested.	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....
Name	.....	.....	.....	.....
Date	.....	.....	.....	.....
Comments	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
Name	.....	.....	.....	.....
Date	.....	.....	.....	.....
Comments	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....

This table can also be used for weekly observation.

# Reporting

Reporting is communicating students' achievements in fair and accurate ways to parents, guardians, teachers, students and others. Reports should be based on assessment information collected from ongoing assessment. Schools will decide how reports will be presented to best suit the needs of their communities. It should be communicated to the parents in the language of the community, especially when it is a written report. Reporting can be done in a variety of ways:

- formal talks with parents and guardians known as parent–teacher conferences or interviews
- informal talks with parents and guardians as needed before or after school
- a written report for parents or guardians and the student’s new teacher, usually completed near the end of the year.

Parents and guardians will be very eager to hear about their child's progress when students first start school in Elementary Prep. Teachers need to hold a parent-teacher interview either at the end of the student's first term or early second term at school.

In Elementary 1, teachers may decide to hold formal talks with parents and guardians at interviews or conferences. These could be held halfway through the year and at the end of the year.

In Elementary 2, teachers may decide to hold formal talks with parents and guardians in the middle of second term and provide them with a written report at the end of the year.

## **Evaluation**

Teachers will use assessment information to evaluate the effectiveness of their teaching, learning and assessment programs and to make improvements to their teaching practice in order to improve students' learning.

Schools may use whole school assessment data to evaluate the effectiveness of teaching and learning in a particular subject or at particular grade levels and make decisions on how to improve teaching and student learning.

# Units of work and programming

## Writing units of work

Units of work are developed in many different ways around both broad and specific learning concepts. These concepts are identified in the outcomes from the three syllabuses. It is possible to develop a unit of work from a cluster of outcomes or just one outcome. However, due to the integrated nature of learning at Elementary level we will focus on integrated units of work. Integrated units of work are based on more than one outcome. The unit of work describes in detail the content of learning for the students.

In the initial planning of a unit of work, the teacher must identify:

- the content of learning described in the outcomes in the syllabuses
- how learning is going to be organised and delivered
- suitable materials and resources that will enhance learning
- how long a unit of work will take to teach
- the various types of learning activities to meet individual needs of students
- suitable assessment tasks to allow students to demonstrate achievement of the outcomes
- the need to be flexible and allow for spontaneous learning.

Planning of the unit of work is done with the view to encourage teachers to link community activities to students' learning and experiences. In the units of work teachers are required to develop:

- a community calendar
- a yearly plan
- term programs
- teaching and learning plans
- weekly programs.

## **Making your own community curriculum**

The nature of Elementary education requires the curriculum to be developed and taught in the local language or vernacular. This means that suitable community members are identified to work with teachers to develop the local curriculum. They identify relevant cultural knowledge, skills, attitudes and values to provide the basis of the content of learning in their curriculum. The local curriculum must:

- be culturally relevant, community-oriented and taught in an integrated way
- be jointly developed by the teachers and knowledgeable people in the community
- be focused within an environmental context students are familiar with
- enable students to develop better understandings of their culture and language
- help students to transit into Lower Primary.

During the curriculum development process, be mindful that in everyday life students learn in an integrated way. This means that Elementary curriculum is developed and taught using an integrated approach. This approach builds upon students' known experiences to help them acquire new skills, knowledge and attitudes with understanding.

In an integrated approach to teaching and learning:

- learning is planned by connecting common concepts within or across subjects
- students' learning needs to be related to community activities
- new learning experiences are built on past experiences
- learning is focused within a familiar environmental context
- opportunities are provided for a wide variety of student-centred activities
- local resources are used to support learning.

This section of the teacher guide focuses on how to develop a community-based curriculum. The following steps have been arranged in sequence to guide teachers in the process.

### **Step 1: Developing a community calendar**

A community calendar lists the significant cultural and community events that occur in your area in the year. To develop your own community calendar, follow the steps given below to guide you.

#### **1. Collecting information**

Visit the local community. Work with your Community Curriculum Committee and knowledgeable people to gather local information. List local information gathered from the community onto the calendar sheet with the help of the committee. Arrange your list of events and activities according to the seasons of the year.

## 2. List main community events involving students

Identify suitable events and activities for your students from the list developed in step 1.

See the sample below given from North Solomons Province. Present your information in the same way.

### Sample activities from North Solomons Province

There are certain activities or events that occur seasonally and can provide open learning situations for the students. Some examples of these are shown below.

Making new gardens	Mother's Day celebration
Cocoa picking	Independence Day
Food harvesting	Father's Day celebration
Hunting for certain animals	District tournaments
Fishing for certain fish, like sea worms	Easter
Christmas	Youth sports carnivals

Use the education calendar to include the events that are coming up in the school year. Examples appear below.

Village cleaning	Sports tournament
Planting of food gardens	School closing activities
Cocoa cleaning, picking, selling	Graduations
Village funeral feasts	Selling and buying food stuff and garden produce
Feasting	House building
Fishing	

## 3. Write community events into the calendar sheets

The community calendar sheet is divided into eight columns.

### Column 1: Traditional months

Check with older members of the community for correct names. List the traditional months, windy or wet and dry times used in your community and the seasons.

### Column 2: Seasons

Fill in the names of the seasons we have in the country.

### Column 3: Environmental changes

Fill in the environmental changes column with information such as when certain trees lose their leaves or when mangoes bear fruit.

**Column 4: Seasonal activities**

Fill in the seasonal activities column with activities that occur at different times of the year such as planting, making new gardens, fishing, house building, harvesting, when certain fish spawn or are plentiful. If these things are not seasonal in your area then record them in the environmental changes column.

**Column 5: Cultural, religious and national activities**

Fill in the main festivals and celebrations of your community for the year such as Christmas, Easter, Moka, Yam Festival, Independence, Tolai Warwagira, Hiri Moale and Show Day.

**Column 6: Sporting and other community events**

Sporting events might include soccer, softball, boat races or volleyball games. Other community events might include the building of a new church, a new community centre or water supply or such activities as choir competitions. Some families may be planning to build new houses, marriages, bride price ceremonies, funerals, feasts or births. As the year goes keep on adding to the calendar. Many of these activities will not be fully planned a whole year in advance.

**Column 7: School terms**

Show in this section when each school term starts and ends. This column will help you to plan your yearly, daily and term programs.

**Column 8: English months**

Write in the names of the English months so that they relate to the traditional months.

A sample community calendar is given on the next page to assist you to develop your own community calendar. Do not copy the sample. It is an example taken from a community in North Solomons Province.

**Sample community events calendar from a community in North Solomons Province**

<b>Traditional months</b>	<b>Seasons</b>	<b>Environmental changes</b>	<b>Seasonal agricultural fishing and hunting activities</b>	<b>Cultural, religious and national activities</b>	<b>Sporting and other community events</b>	<b>School terms</b>	<b>English months</b>
Nonuopira	Wet			New Year		Break	January
Kepirago Paipira Korepira		South-easterly wind	Harvesting	Easter	Rugby Soccer Volleyball Basketball	1	February March April
Upupira Tugipira		Flooding	Fish trapping	Mother's Day World Environment Day Queen's Birthday	Feasting	2	May June
Paipiratuo Kepiragotuo Kampurotuo		Destruction of garden foods famine	Cocoa season	Father's Day Independence Day	Sports tournament	3	July August September
Kipuro Nonuoropira Luugo Kepirago Luugo	Dry	Flowering of trees Fruit trees bearing mango and laulau North west winds	Planting of food gardens Fishing seasons Sea worms	Month of Holy Rosary School closing activities	Sporting associations ending Feasting	4	October November December

## **Step 2: Mapping and organising outcomes**

To develop integrated units of work it is necessary to map and organise the outcomes into groups or clusters. Two common ways of mapping and organising the outcomes are to:

- select outcomes from the Culture and Community and Cultural Mathematics syllabuses that link naturally either in one subject or across both subjects
- identify themes from the community calendar and outcomes from Culture and Community and Cultural Mathematics syllabuses to match the themes.

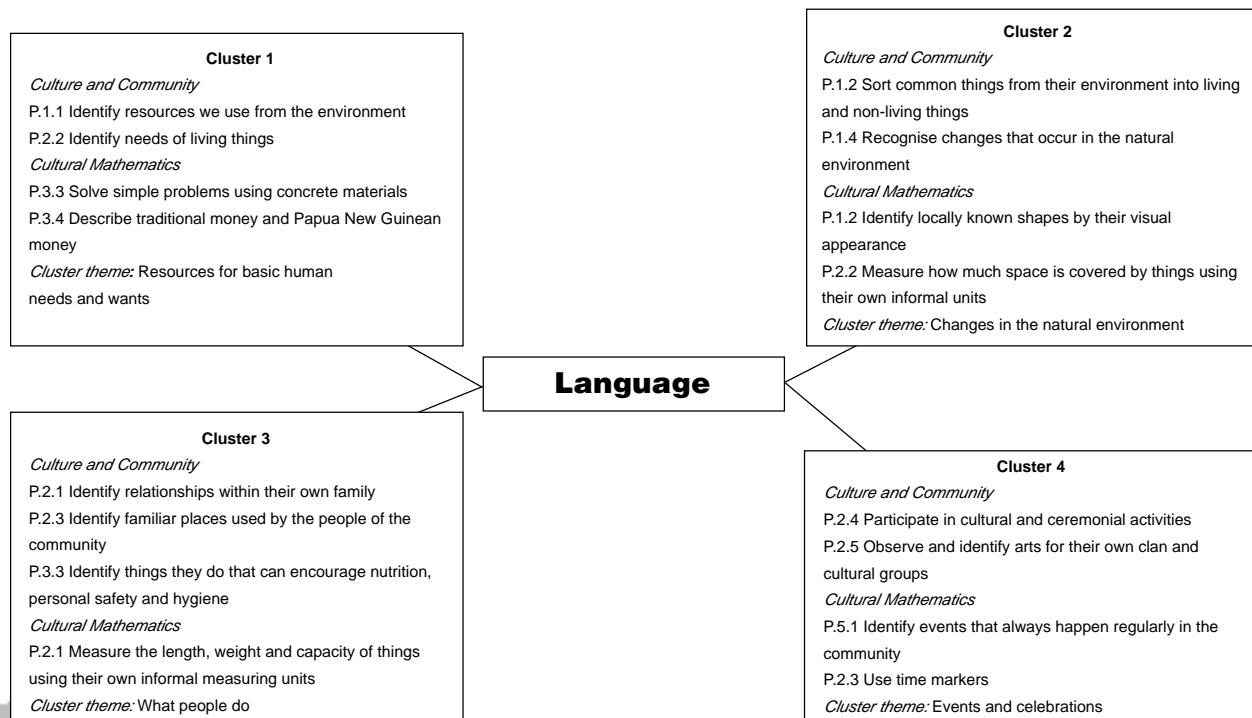
Before clustering the outcomes it would be very helpful to:

- read through your syllabuses and be familiar with the content
- identify outcomes that have common concepts in the subject or across the curriculum
- consider what knowledge, skills and attitudes in the outcomes are appropriate to the language and cultural contexts of the students.

Note that the Language outcomes are linked to all learning areas so will not be clustered in this example. Language outcomes can be added as you begin planning units of work. Teachers are encouraged to work in groups throughout this process. the sample below was developed by a group of Elementary teachers from North Solomons Province.

### **Sample of mapping outcomes for Elementary Prep**

Below are some examples of how you could cluster some of the Elementary Prep outcomes and match them with cluster themes to develop units of work.



Always refer to your identified outcomes to make sure all student activities focus on students achieving them. Study the sample on page 26 and follow the steps below to make your own clusters of outcomes and cluster themes.

## **A process for clustering outcomes**

### **1. Clustering outcomes**

Identify clusters of outcomes from which to plan units of work. Do this by either selecting outcomes from the Culture and Community and Cultural Mathematics syllabuses that link naturally together either in one subject only, or across the two subjects. Another way is to identify themes from the community calendar and pull out the outcomes from Culture and Community and Cultural Mathematics syllabuses to match the themes.

### **2. Identify common concepts and a cluster theme that links the outcomes**

Group the selected outcomes and pick out the ideas and concepts that link these outcomes together. Describe and confirm the links and identify a cluster theme by which you can teach the outcomes. Use this theme to name the cluster of outcomes. These themes will be referred to as cluster themes.

### **3. Repeat steps 1 and 2 to create other clusters of outcomes and cluster themes**

### **4. Confirm your decisions**

Make sure that:

- each cluster has a broad, common learning concept that easily connects all the outcomes
- outcomes are not forced together when they do not really fit
- outcomes only appear in one cluster
- your group discusses, describes, confirms your decisions and gives each cluster a name
- the cluster name relates to the theme you will use to teach that cluster of outcomes.

### **5. Identify any outcome that has not been clustered**

Plan to teach these outcomes separately in their specific subject areas.

Now you should have clustered all of your outcomes for your grade level for Culture and Community and Cultural Mathematics.

### **Step 3: Identifying smaller themes from the cluster themes**

You need to now identify smaller themes from your cluster themes. This will give you themes or topics to plan units of work. The content of learning in the cluster themes is very broad such as Changes in the natural environment or Events and celebrations. To make smaller themes teachers need to:

- make sure the learning content is relevant to the learners' context and community
- cater for learning in all subjects: Culture and Community, Cultural Mathematics and Language
- identify relevant knowledge, skills and attitudes from the clustered outcomes
- estimate how much time is needed to teach each small theme
- obtain and use local resources to support students' learning.

When going through this process, make sure that all the outcomes for each grade in all three syllabuses will be taught during the year.

#### **Sample of smaller themes worked out from the cluster themes**

Study the sample given below, to help you identify smaller themes from your cluster themes.

<b>Elementary Units of Work</b>			
<b>Unit 1</b> <b>Cluster theme</b> What people do	<b>Unit 2</b> <b>Cluster theme</b> Events and celebrations	<b>Unit 3</b> <b>Cluster theme</b> Resources for basic human needs and wants	<b>Unit 4</b> <b>Cluster theme</b> Changes in the natural environment
<b>Theme 1</b> Family <b>Theme 2</b> Leaders <b>Theme 3</b> Community arts <b>Theme 4</b> Religion	<b>Theme 1</b> Festivals <b>Theme 2</b> Community activities <b>Theme 3</b> Seasonal activities <b>Theme 4</b> Recreation and sporting activities	<b>Theme 1</b> Clothing <b>Theme 2</b> Food <b>Theme 3</b> Water <b>Theme 4</b> Shelter	<b>Theme 1</b> Land <b>Theme 2</b> Plants <b>Theme 3</b> Animals <b>Theme 4</b> Weather

Note: There are events that are happening in the community at certain times of the year such as Easter, Independence Day, Book Week, Education Week and Christmas. Plan to teach these activities at the right times of the year.

## Process for developing and sequencing your smaller themes

Follow the steps given to help you develop your yearly program of themes.

1. Look through each of the cluster themes you have developed.
2. Brainstorm main ideas for each cluster of outcomes to identify smaller themes.
3. Estimate how much time is needed to teach each small theme in the cluster theme.
4. List the smaller themes under the cluster themes. Keep the number of smaller themes to a maximum of four for each cluster theme.
5. Repeat steps 1, 2, 3 and 4 for the remaining cluster themes.
6. Refer to your community calendar to ensure that the themes are relevant to the students' community.
7. List the outcomes that have not been clustered.

### Outcomes not clustered

The outcomes not clustered in Culture and Community and Cultural Mathematics from the sample given above are listed below so that they will be taught on their own whenever appropriate.

#### Culture and Community

- P.1.3 Use their senses to gather information about the environment
- P.3.1 Explore basic movements
- P.3.2 Create and play simple games

#### Cultural Mathematics

- P.1.1 Follow and give simple directions for moving in a space
- P.3.1 Count objects in vernacular using local number systems
- P.3.2 Describe the four operations using simple vernacular words
- P.4.1 Make simple patterns

**Step 4: Developing a yearly program**

There are many ways to develop a program for the school year. In this section we look at how to develop a yearly program using the clustered unit themes and the community calendar. The yearly program will include:

- suitable units to teach in each term in the school year
- cultural activities with themes that match your community calendar
- special community and calendar events
- opportunities for students to develop the vernacular, cultural knowledge skills, attitudes and values from their communities.

**Process for developing a yearly program**

The sample below has been done with reference to the information above. Follow the given steps to complete a yearly program for your grade.

1. Consult the community calendar and decide which themes will be taught in Terms 1, 2, 3 and 4.
2. Draw up a table like the one in the sample below for your yearly program.
3. Estimate how much time is needed to teach each small theme.
4. Write names of cluster themes that you want to teach in each term with the smaller themes listed underneath.
5. Complete your yearly program like the sample below.
6. Write outcomes not clustered at the end of each term in the yearly program.
7. Check your yearly program against the community calendar to make sure that the themes are written at the correct term of the year.

**Sample yearly program**

Class: Elementary Prep      Year:

Week	Term One <b>What people do</b>	Week	Term Two <b>Events and celebrations</b>
1	Orientation	1-2	Festivals
2-3	Family	3-4	Community activities
4-5	Leaders	5-6	Seasonal activities
6-7	Community Arts	7-8	Recreation and sporting activities
8-9	Religion	9-10	Culture and Community P.3.2
10	Culture and Community P.3.1		Cultural Mathematics P.1.1
Week	Term Three <b>Resources for basic human needs and wants</b>	Week	Term Four <b>Changes in the natural environment</b>
1-2	Clothing	1-2	Land
3-4	Food	3-4	Plants
5-6	Water	5-6	Animals
7-8	Shelter	7-8	Weather
9-10	Cultural Mathematics P.3.1, P.3.2	9-10	Culture and Community P.1.3 Cultural Mathematics P.4.1

Outcomes that are not clustered must be included in the yearly program. They should be planned and programmed at appropriate times of the year using themes or as separate lessons.

### Step 5: Making a term program using themes

Making a term program is important. There are four terms in a year and each class teacher should produce a program for each term. When planning your term program it is important to:

- identify community activities that match the relevant themes for the term
- identify activities in the community suitable to teach as main activities with the class
- always refer to the community and education calendars to make sure that themes are taught at the right times of the year.

#### Process for developing a term program

Study the sample below. Read the steps given to do your class term program.

1. Draw up a table with five columns.
2. Write in:
  - column 1 the length of time in weeks for teaching each theme
  - column 2 the names of themes that are to be taught in each term
  - column 3 the community activities related to the themes
  - column 4 the main class activities or shared experiences
  - column 5 titles of suitable big books or other relevant information texts. If texts are unavailable write your own.
3. Plan to teach the outcomes that have not been clustered in each term program.
4. Check the program against the sample to see that relevant information is written in the right columns.

**Sample term program**

Term: 1    Grade: Elementary Prep

Year: 2003

<b>Week</b>	<b>Theme</b>	<b>Community activities</b>	<b>Main class activities</b>	<b>Big books</b>
1	Orientation		Getting to know each other, their names, things they like and dislike	Be familiar with books and other school materials
2-3	Family	Doing these activities together: <ul style="list-style-type: none"> <li>• playing</li> <li>• cooking</li> <li>• singing</li> <li>• working</li> <li>• worshipping</li> <li>• cleaning community</li> <li>• gardening.</li> </ul>	Visit the village to listen to an elder Role-play daily village activities Make models of members of the family using seeds, sticks, stones Have a sharing day to share healthy food brought from home	My Family
4-5	Leaders	Roles of community leaders include: <ul style="list-style-type: none"> <li>• leading meetings</li> <li>• solving problems in the community</li> <li>• going out to meetings</li> <li>• planning and organising feasts in the community</li> <li>• welcoming visitors.</li> </ul>	Name different types of leaders in the community Discuss different responsibilities leaders have Leaders visit the school and talk to the children	Our Leader
6-7	Community arts	Community arts include: <ul style="list-style-type: none"> <li>• making decorations</li> <li>• making baskets</li> <li>• weaving mats</li> <li>• making choppers</li> <li>• making masks and digging tools, axe handles and canoes.</li> </ul>	Guest speaker Excursion to take children to see actual community arts and crafts Describe the uses of bowls, mats, baskets and other pieces of art Describe the use of traditional money	The Magic Spear
8	Religion	Religion activities include: <ul style="list-style-type: none"> <li>• reciting morning and night prayers</li> <li>• practising hymns</li> <li>• decorating church for different occasions</li> <li>• receive holy Eucharist together</li> <li>• attend church services.</li> </ul>	Discuss the procedures of prayer Learn to respect the church Visit the church Listen to church pastors and workers	The Creation
9-10	Culture and Community outcome P. 3.1 <i>Explore basic movements</i>	Activities include: <ul style="list-style-type: none"> <li>• playing games together</li> <li>• practising different ways of moving using different body parts.</li> </ul>	Free-play activities	

## Step 6: Writing units of work

Writing units of work, which are similar to teaching and learning plans, is very important. Units of work give a detailed plan of teaching and learning activities and assessment tasks designed to help students achieve particular outcomes. A unit of work helps teachers:

- identify knowledge, skills and attitudes that the community wants their children to develop
- write suitable indicators, learning activities and assessment tasks for each theme
- make sure that assessment tasks will allow students to demonstrate the knowledge, skills and attitudes given in the outcomes
- identify locally relevant resources for the learning of the unit
- estimate number of activities to cater for the duration of the unit.

### Process for developing units of work

Follow the steps given to complete a unit of work for your class.

1. List the outcomes from your cluster theme. Don't forget to add the Language outcomes you plan to teach.
2. Choose suitable indicators from the three syllabuses that match your selected outcomes or develop your own to suit the theme. Remember that indicators show what the students know and can do.
3. Draw a table with four columns.
4. Write in column one suitable indicators for each outcome for each subject relevant to the theme.
5. Write in column two suitable teaching and learning activities for each indicator to help students achieve the outcomes.
6. Identify suitable assessment tasks that link with the outcomes. Write these in column three.
7. Develop assessment criteria for each assessment task and record these in column four.
8. List suitable local resources students will use to learn.
9. Check your completed unit of work to make sure that you have sufficiently catered for all three subjects.

**Sample unit of work for Culture and Community, Cultural Mathematics and Language**

Class: Elem. Prep

Term: 1

Weeks: 2 and 3

Theme: Family

**Culture and Community outcomes**

P.2.1 Identify relationships within their own family

P.2.3 Identify familiar places used by the people of the community

P.3.3 Identify things they do that can encourage nutrition, personal safety and hygiene

Indicators	Teaching and learning activities	Assessment tasks	Assessment criteria
<b>Culture and Community</b> <ul style="list-style-type: none"><li>• illustrate roles of family members</li><li>• know which foods are nutritious and which are not</li><li>• talk about common hygiene practices and know why they are important</li></ul>	<b>Main class activities</b> <ul style="list-style-type: none"><li>• excursion to a local community to look at:<ul style="list-style-type: none"><li>– family relationships</li><li>– the nutrition, safety and hygiene of family members</li></ul></li></ul> <b>Family relationships</b> <ul style="list-style-type: none"><li>• draw family members and describe orally what each member does</li><li>• make models or show photographs of family members and describe how they help each other</li><li>• imitate or mime the roles of family members</li><li>• talk about members of the family with special needs</li><li>• make a poster or chart showing various ways of helping family members with special needs</li></ul> <b>Nutrition and hygiene</b> <ul style="list-style-type: none"><li>• display a variety of food samples and sort them into healthy and unhealthy food</li><li>• make a chart showing nutritious food from the garden and stores</li><li>• talk about the food chart displayed showing the types of food their families eat</li><li>• play simple nutrition games such as 'Snakes and Ladders'</li><li>• bring and share food prepared at home</li><li>• dramatise hygiene practices such as washing hands before touching food and after using the toilet, washing plates and cups and putting them away in a safe place</li><li>• display parts of plants their families use for curing sores and illnesses</li></ul>	Draw a picture of each member of the family and say what roles they play in the family	Students: <ul style="list-style-type: none"><li>• describe correctly the main roles of each family member</li></ul>

**Resources**

Paper, pairs of scissors, crayons or something to draw or write with, permission notes to take students out of the school, food samples, cooked food to share.

**Cultural Mathematics outcomes**

P.2.1 Measure the length, weight and capacity of things using their own informal measuring units

Indicators	Teaching and learning activities	Assessment tasks	Assessment criteria
<b>Cultural Mathematics</b> <ul style="list-style-type: none"> <li>estimate, compare and measure weight, length and capacity using local units</li> </ul>	<p><b>Weight</b></p> <ul style="list-style-type: none"> <li>transfer amounts of water, soil or sand into different containers and say which container is heavy and which is light</li> <li>lift different containers, bilums, bags or baskets and say whether it is heavy or light</li> <li>arrange the containers from heaviest to lightest</li> <li>play a seesaw game to see who is heavy and who is light</li> </ul> <p><b>Length</b></p> <ul style="list-style-type: none"> <li>estimate the distance from their classroom to the school toilet, the water well to their house, or from the school to the village clinic</li> <li>estimate and measure the length and width of their family homes using own informal units such as paces, sticks and ropes of certain lengths</li> </ul> <p><b>Capacity</b></p> <ul style="list-style-type: none"> <li>fill water containers of various sizes and say how which container holds the most and which holds the least</li> <li>estimate the number of commonly used smaller containers to fill selected big containers</li> <li>arrange containers according to how much water they hold from the most to the least</li> <li>transfer amounts of water, soil or sand in different containers and say which container holds more and which holds less</li> </ul>	<p>Arrange five different containers:</p> <ul style="list-style-type: none"> <li>from the heaviest to the lightest</li> <li>in order from the one that holds the most water to the one that holds the least water</li> </ul> <p>Sort five objects such as sticks or ropes from the longest to the shortest</p>	<p>Students:</p> <ul style="list-style-type: none"> <li>test their guesses by comparing the five objects</li> <li>sort them accurately in the right order according to: <ul style="list-style-type: none"> <li>– weight</li> <li>– length</li> <li>– capacity</li> </ul> </li> </ul>

**Resources**

Containers from home, water, bags of sand, measuring units for length, measuring units for weight such as seesaw.

**Language outcomes**

P.1.1 Communicate with peers and known adults on familiar topics

P.1.3 Use basic requirements of speaking and listening

P.1.5 Identify different oral contexts and situations

P.2.1 Read and understand short predictable texts

P.2.2 Develop strategies to read and understand short predictable texts

P.3.1 Use pictures and writing to represent ideas and information

P.3.2 Recognise strategies that help them to write

While addressing all of these outcomes briefly, the teacher would probably only choose to assess one or two of them. In this unit of work the assessment tasks focus on outcomes P.1.1 and P.2.1. Activities addressing the other Language outcomes are just for practice and will not be assessed.

<b>Indicators</b>	<b>Teaching and learning activities</b>	<b>Assessment tasks</b>	<b>Assessment criteria</b>
<p><b>Language - Reading</b></p> <ul style="list-style-type: none"> <li>• read along with others in big book shared-reading experiences</li> <li>• ask and answer questions about big books</li> <li>• relate personal experiences to the text</li> </ul>	<p><b>Reading</b></p> <p>Following the shared-reading experience (SRE) talk, read, talk, read, do, talk</p> <p>Students:</p> <ul style="list-style-type: none"> <li>• predict the big book text using the cover and illustrations or teacher tells a story about the topic of the big book text to students and asks questions about the topic (Talk)</li> <li>• listen to teacher reading big book text or wall charts with expression and right speed (Read)</li> <li>• in small groups discuss the text and ask questions with each other and the teacher (Talk)</li> <li>• read the big book text together with teacher (Read)</li> <li>• play a whispering game or a break-and-order game in groups using key sentences from the big book (Do, Talk)</li> <li>• read and re-read big book focusing on different activities: <ul style="list-style-type: none"> <li>– discussing illustrations: answering questions about the text</li> <li>– hiding and guessing missing words (oral cloze)</li> <li>– making up different endings to the story and teacher writes it on a wall chart</li> <li>– telling stories about the chart text</li> <li>– role-play characters from the story</li> <li>– answering who, when and where questions about the text</li> </ul> </li> <li>• write new words on 'word-wall' chart. Do 'word-wall' activity</li> <li>• play break-and-order games with key sentences in small groups</li> <li>• revise words from word wall chart and add and learn more new words</li> <li>• play theme-word game to learn new letter sounds</li> <li>• clap theme words when teacher says them</li> <li>• fast phonics to learn the new sounds. (Group or pair activities)</li> <li>• read small books or wall charts and library texts in pairs</li> <li>• talk about their feelings when helping out with family duties in pairs then do an illustration and ask the teacher to help them write the title for the picture</li> <li>• tell peers about favourite part of the big book or modelled text using picture sequence cards</li> <li>• use letter word cards and word cards to make words, phrases and sentences found in big book text or chart text</li> </ul>	<ul style="list-style-type: none"> <li>• do cloze activity using content of chart text</li> </ul> <p>Teacher conferences with small groups of students about the big book text. The teacher asks questions and listens to students' responses to see how well each student understands the text. Use a checklist of assessment criteria and make notes for each student.</p>	<p>Students</p> <ul style="list-style-type: none"> <li>• answer questions correctly about the characters and the main events in the text</li> <li>• relate their own experiences to the text</li> </ul>

Indicators	Teaching and learning activities	Assessment tasks	Assessment criteria
<b>Language: Speaking and listening</b> <ul style="list-style-type: none"> <li>describe objects of interest to the class</li> <li>talk about their family experiences</li> <li>respond appropriately to questions</li> </ul>	<p><b>Speaking and listening</b></p> <ul style="list-style-type: none"> <li>show and tell peers about a favourite object used by own family at home such as carved objects and tools like a coconut scraper</li> <li>take turns to speak and listen to peers about things that own family members do such as gardening, basket weaving or cooking mumu in small groups</li> <li>retell stories heard from family members to peers</li> <li>role-play different family members and adapt their speeches to suit the characters that they role-play</li> <li>clap for words that begin with same beginning sound such as 'mama', 'mi', 'maski'</li> <li>play a say-it-fast game using level one words</li> <li>listen and identify the sound or the syllable in the words read aloud by teacher and clap when they hear the sound</li> </ul> <p><b>Writing</b></p> <p>Pre-writing activities</p> <ul style="list-style-type: none"> <li>trace around cardboard letter shapes or shapes of things found in the home</li> <li>trace over their own names</li> <li>make some basic strokes such as      or o o o o</li> <li>practise basic letter stroke such as I ? I ? I</li> <li>make up a story that is related to the theme for the teacher to model writing process</li> <li>illustrate characters or events from the story written by the teacher</li> <li>find the letters puzzle: students find the letters on the chart paper that matches the one on the letter card</li> <li>modelled writing lesson using steps for creative writing: talk, write, read; talk, write, read, publish using a topic from the theme, in this unit of work: Families</li> <li>re-read modelled text, edit and publish as a big book: students illustrate a page each in the book</li> </ul>	Students talk to their peers about things their families do	<p>Students:</p> <ul style="list-style-type: none"> <li>• speak willingly to the class about the topic</li> <li>• speak loudly enough for everyone to hear</li> <li>• answer any questions appropriately</li> </ul>

## Resources

Big book *My Family*, *Elementary Language Resource Book*, flashcard words, *Language Resource Book*, students bring objects from home, cardboard letter shapes and shapes of things in the home, word wall chart, *Activity Book 1*, blank chart, vernacular letter word cards, wall chart with written text, flashcards with letters

See sample language plan (pp40-41) for detailed plan.

**Sample of a unit of work for a single outcome not in a cluster**

This table shows a sample unit of work for an outcome that has not been clustered. It is important for teachers to plan for these outcomes to be taught separately. It must be taught according to the time frame for each term so that the students acquire the knowledge, skills and attitudes from all of the Elementary outcomes.

Culture and Community outcome: P.3.1 Explore basic movements

<b>Indicators</b>	<b>Teaching and learning activities</b>	<b>Assessment tasks</b>	<b>Assessment criteria</b>
Perform basic whole-body movements such as twisting, balancing, bending and stretching in free-play activities	<ul style="list-style-type: none"><li>• talk about ways their body parts move</li><li>• stand and stretch up on toes</li><li>• bend forwards, backwards, sideways and jump up</li><li>• twist your body, walk five steps, twist and run five steps</li><li>• stretch, bend and twist your waist and sit down</li></ul>		
Perform different types of common movements	<ul style="list-style-type: none"><li>• walk freely, slowly, fast, tall, small and sideways</li><li>• run freely, slowly, fast, backwards and forwards, sideways</li><li>• leap freely in the air, sideways, forwards or over a mark</li><li>• jump freely, high, low, sideways, fast and slow</li></ul>	Name a body part and demonstrate different movements it makes	<p>Students:</p> <ul style="list-style-type: none"><li>• show at least five different body movements</li><li>• show a simple sequence of at least three movements</li></ul>

**Developing a weekly program**

A weekly program is developed to sequence the lesson activities from the units of work. These activities are sample lessons for the weekly program. In the weekly program you must:

- state each activity clearly
- sequence activities according to the flow of lessons in each day of the week
- indicate the number of minutes for each activity
- give the total number of minutes for learning in the week.

**A process for developing a weekly program**

Follow the steps below to develop a weekly program for your class. The sample below will assist you.

1. Look at your unit of work.
2. Select activities and write them according to the order of presenting them as lessons.
3. Write beside each activity the length of time each activity will take.
4. Allocate times to all learning areas so that all subjects are taught effectively.
5. Give the total of given times for each lesson.

Refer to the Appendix for recommended times for each subject.



The sample below is for only the first week of this unit of work. You will need to prepare a weekly program like this for each week of the unit of work. Be sure to make time for the assessment tasks to occur during normal lesson time.

**Sample weekly program for first week of the unit of work**

Grade: Elem. Prep		Term: One		Week: Two of term	
Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 <b>Morning assembly</b>					
8:15	<b>Culture and Community</b> <ul style="list-style-type: none"> <li>Introduce the theme</li> </ul> Use picture KWL 30 min	<b>Language</b> <ul style="list-style-type: none"> <li>SRE: Re-read big book</li> <li>do-talk: break-and-order game</li> <li>tell story from family</li> <li>pre-writing: practise basic strokes</li> <li>shared-reading</li> <li>different ending to big book text</li> <li>do-talk: theme word game</li> <li>word-wall act</li> <li>role-play character</li> <li>model story writing</li> <li>group work</li> </ul> 75 min	<b>Language</b> <ul style="list-style-type: none"> <li>shared-reading</li> <li>different ending to big book text</li> <li>theme word game</li> <li>word wall activity</li> <li>role-play: adapt family members' speeches</li> <li>teacher to model writing process</li> <li>group work</li> </ul> 75 min	<b>Language</b> <ul style="list-style-type: none"> <li>SRE: with new ending</li> <li>break-and-order game</li> <li>key sentence</li> <li>word-wall</li> <li>illustrate for modelled writing</li> <li>prewriting: practise basic strokes</li> <li>group work</li> </ul> 75 min	<b>Language</b> <ul style="list-style-type: none"> <li>SRE: big book text</li> <li>role-play big book characters</li> <li>identify theme word</li> <li>clap for word that begins with same sound</li> <li>group work</li> </ul> 75 min
8.45	<b>Language</b> <ul style="list-style-type: none"> <li>Shared-reading</li> <li>talk: predict big book text cover</li> <li>listen to big book read by teacher</li> <li>ask about text</li> <li>do-talk: game</li> <li>show-tell: object their family use</li> <li>talk: with peers about things their family use</li> <li>do: trace around letter shapes</li> </ul> 75 min	<b>Cultural Maths</b> Estimate and measure the length and width of some places at school such as the garden bed and the classroom Play seesaw to see who is heavy and light 30 min	<b>Cultural Maths</b> Estimate distances from the classroom to familiar places 30 min	<b>Cultural Maths</b> Estimate distances from the classroom to familiar places 30 min	<b>Religious Education</b> Taken by village pastor or a church representative 30 min
10:00 <b>Morning Break</b>					
10:30	<b>Cultural Maths</b> <ul style="list-style-type: none"> <li>use tall and short to describe family members</li> <li>arrange themselves from tallest to shortest</li> </ul> 30 min	<b>Culture and Com.</b> <ul style="list-style-type: none"> <li>dramatise hygiene practices for self, home and school</li> <li>make models of family members and describe how they help family</li> </ul> 90 min	<b>Culture and Com.</b> <ul style="list-style-type: none"> <li>visit local community to look at family relationships and what they do to keep family members healthy</li> </ul> 90 min	<b>Culture and Com.</b> <ul style="list-style-type: none"> <li>talk about members of their family who have special needs</li> <li>make a chart showing what they do for the members of their family with special needs</li> </ul> 90 min	<b>Culture and Com.</b> <ul style="list-style-type: none"> <li>talk about familiar places their family members use such as church, market, water well</li> <li>clean the familiar place the family use such as toilets, church, clinic</li> </ul> 90 min
11:00	<b>Culture and Community</b> <ul style="list-style-type: none"> <li>imitate and mime roles of family members</li> <li>draw family members and describe roles played to help the family</li> </ul> 60 min				

**Summary: Culture and Community = 450 mins, Cultural Maths= 120 min**  
**Language = 375 min Religious Education = 30 min Total number of minutes = 975 min**

## Sample language plan

Key sentence: \_\_\_\_\_ Key sound (phonics) / syllable: \_\_\_\_\_

Note: Choose activities to total approximately 75 minutes per day and list them in order of presentation if possible. The focus is on shared-reading experience (SRE) using the big book.

### Week 1

Strands	Activities	Assessment	Resources
<b>Day 1</b>  <b>Reading</b> Production (25 min)	<p>Following the <i>shared-reading experience</i> (talk, read, talk, read, do-talk)</p> <p><b>Talk:</b> students predict the big book text using the cover illustration or teacher tell a story about the topic of the big book text to students or ask questions about the topic</p> <p><b>Read:</b> students listen to teacher reading big book text with expression and right speed</p> <p><b>Talk:</b> student in small groups discuss, talk and ask questions about the text with each other and the teacher</p> <p><b>Read:</b> student and teacher read the big book text together</p>	Teacher conferences small groups of students about the big book text. The teacher asks questions and listens to students' responses to see how well each student understands the text. Use a checklist of assessment criteria and make notes for each student.	big book <i>Family</i> Elementary Language Resource Book Flashcard words Language Resource Book Students bring objects from home Cardboard letter shapes and other shapes Activity Book 1
<b>Reading</b> Skills and strategies (15 min)	<p><b>Do-Talk:</b> students in groups do whispering game or break-and-order game using key sentence</p> <p>Write new words on 'word-wall' chart. Do 'word-wall' activity</p>		
<b>Speaking and listening</b> Production (10 min)	Show and tell peers about a favourite object used by own family at home such as carved objects		
<b>Speaking and listening</b> Skills and strategies (10 min)	Take turns to speak and listen to peers about things that own family members do such as gardening, basket weaving or cooking mumu in small groups		
<b>Writing</b> Skills and strategies (10 min)	Trace around cardboard letter shapes or shapes of animals and other objects (prewriting activity)		
<b>Day 2</b>  <b>Reading</b> Production (25 min)	<p><b>SRE:</b> Re-read the big book text (talk, read, talk, read)</p> <p>Retell the big book text using the illustrations as a guide as a whole class and then in pairs.</p>	Students talk to their peers about things their families do	Language Resource Book Word-wall chart Activity Book 1
<b>Reading</b> Skills and strategies (15 min)	<p><b>Do-talk:</b> Break-and-order game with key sentence in small groups</p> <p>Revise words from word-wall chart and add more new words.</p>		
<b>Speaking and listening</b> Skills and strategies (10 min)	Retell stories heard from family members to peers		
<b>Writing</b> Skills and strategies (10 min)	Make some basic strokes such as         or o o o o		

Strands	Activities	Assessment	Resources
<b>Day 3</b> <b>Reading Production</b> (20 min)	<b>SRE:</b> Re-read the big book text (talk, read, talk, read). Hide words and ask students to supply them (oral cloze)  Make up a different ending to the big book text. Students give the new ending and teacher will write it on a chart		Language Resource Book  Word-wall chart
<b>Reading Skills and strategies</b> (10 min)	<b>Do-Talk:</b> Theme word game to learn new letter sound  Word-wall activity to learn more words from big book text		Blank chart
<b>Speaking and listening</b> Context and text (10 min)	Role-play different family members and adapt their speeches to suit the characters that they role-play		
<b>Writing Production</b> (15 min)	Make up a story that is related to the theme for the teacher to model writing process		
<b>Day 4</b> <b>Reading Production</b> (15 min)	<b>SRE:</b> Re-read the big book text with the new ending written by teacher in the previous day (talk, read, talk, read)		Language Resource Book
<b>Reading Skills and strategies</b> (10 min)	<b>Do-talk:</b> Break-and-order game using key sentence Do word-wall activity and add new words to the chart		
<b>Writing Production</b> (15 min)	Do illustration to go with the story model by teacher in the previous lesson		
<b>Writing Skills and strategies</b> (10 min)	Practise basic letter stroke such as I _ I _ I _ I _		
<b>Day 5</b> <b>Reading Production</b> (25 min)	<b>SRE:</b> Re-read the big book text (talk, read, talk, read)  Role-play characters from the story or an experience that is related to the topic of the big book text in small groups		Language Resource Book  Vernacular letter-word cards
<b>Reading Skills and strategies</b> (10 min)	<b>Do-Talk:</b> Clap for theme word when teacher says the word		
<b>Speaking and listening</b> Skills and strategies (15 min)	Clap for words that begin with same beginning sound such as 'mama', 'mi', 'maski'		

No group activities on Day 1: Four groups rotate to do the different activities on day two, three, four and five.

Group/pair activities (20 min) No. 1: Read in pairs small books or wall charts and library texts

Group/pair activities (20 min) No. 2: Talk about their feelings when helping out with family duties in pair and then do an illustration and ask the teacher to help them write the title for the picture

Paired/group activities (20 min) No. 3: Tell peers about the favourite part of the big book using picture sequence cards

Paired/group activities (20 min) No. 4: Use letter-word cards and word cards to make words, phrases and sentences found in big book text

### **Writing lesson plans for each lesson**

A lesson plan describes the order of how teaching and learning will take place. It outlines outcomes and expected objectives and how students will participate in the learning experiences. These plans will differ depending on the lesson content. When planning and writing lesson plans use the following as a guide:

- have clear learning objectives
- relate student learning activities clearly to the outcomes and objectives
- build new learning on students' known experiences
- plan clear explanations and demonstrations
- write student-centred activities that will cater for different learning needs
- prepare locally relevant resources available for teaching and learning
- estimate how much time each part of the lesson will take.

Lesson plans can be written in several different ways. Here is a recommended format that is easy to follow and can be used for all subject areas. This format has the following parts:

1. lesson objectives
2. introduction and motivation
3. explanations and demonstrations
4. student practice and learning activities
5. assessment
6. total time
7. preparation
8. lesson evaluation.

Each lesson part has been further described below to help you plan and prepare your lessons.

#### **1. Lesson objectives**

Lesson objectives are very specific statements that:

- describe the students' achievement for the day in a lesson
- are written at the ability level of the students in a particular grade
- use action words to ensure that students participate actively in the learning.

#### **2. Introduction and motivation**

You are advised that this part of the lesson plan is very important as it is designed to:

- focus the students' attention and interest on the objective of the lesson
- arouse the interest and thinking of students on the lesson topic
- build on what the students already know and can do.

Below are examples of possible introductory activities:

- show pictures about the topic
- tell a story
- talk about their experiences which relate to the topic
- revise the previous lesson through questioning
- dramatise some situations relating to the aspects of the topic
- sing a song about the topic.

You may like to add your own ideas to the list.

After listing suitable introductory activities, estimate the time taken for this part of the lesson.

### 3. Explanations and demonstrations

In this section you as the teacher will:

- explain clearly to students what the class will do in their activities
- show one or two examples for the class to see
- encourage the students to retell in their own words what they will do in the lesson activities.

For example, if your lesson is about the theme 'Family', get students to tell the class about activities families do such as:

- working together
- visiting places together.

Organise group work for the students to do that involves talking, drawing, reading, writing, dramatising, role-play, modelling, miming, singing songs, and reciting poems and rhymes.

In the case of a guest speaker:

- get a student to introduce the guest with the teacher's assistance
- explain to the students what the guest will talk to them about.

Now, estimate the amount of time needed for this part of the lesson.

### 4. Student practice and learning activities

In this part of the lesson you should:

- carefully plan and write down the activities the students will do to achieve the objective
- have student-centred activities that match explanations or demonstrations given and match the outcomes
- allow plenty of time for students to work on activities individually, with peers and in groups
- encourage students to apply appropriate learning strategies to do their activities.

Below are some of the activities for the students to do:

• talk about	• play a game	• listen
• tell a story	• model items	• display
• write	• identify or recognise	• make balls, toy, charts, posters
• read	• mime	
• investigate	• go on an excursion	• collect
• act out or dramatise	• sing a song	• describe
• draw or make murals	• explain	• compare

The activities you plan should encourage the students to:

- actively practise the skills related to the outcome
- have many opportunities to read, write, speak, do things and also listen and follow simple instructions
- gain a better understanding
- achieve the lesson objective.

Give students enough time to explore and talk about ideas with you and other students in order for them to understand and complete their tasks thoroughly.

For example, in Elementary Prep, your objectives for one lesson in the unit of work on 'Family' might be as follows: By the end of the lesson the students will:

- name family members and describe their roles
- draw family members working together.

The students will:

- in groups name family members and give a simple description of each member
- individually draw a picture of his or her family working together
- role-play family members' characters.

Estimate how much time the students need to complete their tasks.

## **5. Assessment**

This part of the lesson is to show to some extent that students have achieved the lesson objectives. The teacher, individual student or group can do this by:

- displaying the completed work with teacher's feedback
- drawing attention to the common errors made in the student activities
- expressing thoughts about a completed drawing or model.

This type of assessment is informal and does not need to occur in every lesson. Some lessons will require more formal assessment when assessment tasks are to be completed by students and individual results recorded by the teacher. Estimate how much time is needed for this step.

## **6. Total time**

Teachers must:

- record the total number of minutes for each part of the lesson
- give total number of minutes for each lesson in the week
- make sure that the lesson time fits in the weekly program.

## **7. Preparation**

For this part of the lesson plan, teachers must make sure that relevant materials are locally available. This will include:

- lesson notes
- teaching materials
- students' learning materials.

Do not prepare materials when teaching is taking place. Do this in your own time before the lesson.

## **8. Lesson evaluation**

Evaluation is done by the teacher at the end of a lesson. This happens in two parts: for the students and for the teachers.

Evaluation for students focuses on:

- how well they have performed
- how well they have completed a task
- how much interest they showed.

Teachers evaluate to see:

- the effectiveness of the lesson in terms of students' learning
- whether learning needs of all students have been met
- the effectiveness of teacher performance and whether you should do some things better or differently
- whether students have achieved the objectives.

## **Sample lesson plan 1**

**Subject:** Culture and Community

**Grade:** Elementary Prep

**Unit:** People

**Theme:** Family

**Lesson topic:** Naming family members

### **Objectives**

By the end of the lesson students will be able to recognise, name and talk about their family members from the picture he or she has drawn.

### **Preparation**

Picture charts of families, coloured pencils, charcoal, small chalkboards, cardboard, drawing paper, people.

### **Introduction and motivation**

Introduce the lesson:

- display a picture drawn or printed of a Papua New Guinean family
- talk about pictures of the family displayed in the classroom
- sing family songs such as *Jisas laikim olgeta* and *We are one big happy family*.

### **Explanations and demonstrations**

#### **Explanation**

Teacher will explain main points of the lesson:

- that each child is a member or part of a family
- that family members help, care, share, respect, love, play and work together
- that family members are father, mother, brother, sister and baby. Prepare main points on a chart.

#### **Demonstration**

Teacher leads the students through the following activities:

- meet a family: one of the children's families or the teacher's family
- create family groups in class
- name members of the family created.

#### **Student practice and activities**

Students as individuals:

- draw individual families
- name members of the family drawn
- present a talk about his or her own family drawing.

**Evaluation**

Point and name in vernacular the family members drawn by the class on the chart.

**Sample lesson plan 2**

**Subject:** Cultural Mathematics

**Grade:** Elementary Prep

**Unit:** People

**Theme:** Family

**Lesson Topic:** Counting family members

**Objective**

By the end of the lesson each student will be able to count in vernacular the number of people in a friend's family and their own family.

**Preparation**

Chart with game instructions, cardboard and mud figures of family members and number cards.

**Introduction and motivation**

Introduce the lesson with the following activities:

- look at picture charts of families
- count the number of people in the picture in vernacular
- count the number of family members standing before the class
- discuss the picture generally.

**Explanation and demonstration**

Teacher will explain in simple short instructions that students will need to know how many people in their family and be able to count them in vernacular.

**Explanation**

Before the students are given their activities to do in groups or individually, the following points must be made to the students. They will need to:

- count vernacular numbers in order
- count for meaning by one to one matching: picture of father, number word or number symbol in Arabic.



### **Demonstration**

Teacher to show the concepts told in the explanation in an activity form for the students to see. This demonstration activity will be in the form of a number game called Family puzzle. The game goes like this:

- show picture of father or any family member
- show a number card
- put the number card beside the cardboard figure of the father
- repeat this activity for all members of the family.

### **Student practice and activities**

The class in their groups will do the following activities:

- lay out cut-out pictures of groups of family members
- lay out number cards facing up
- place beside each picture a number card that matches the number of people in the picture
- play the number game Family puzzle.

In groups, play the game as shown by the teacher until all family members that have been cut out are organised to form the whole family.

### **Evaluation**

Teacher observes students during activities to see which students have grasped the concept of vernacular counting and which students need help.

# Elaboration of Elementary learning outcomes

Elaborations provide further clarification for teachers about the outcomes. Each outcome is described in terms of what students should know and do. Like the indicators, the elaborations are there to assist you to develop activities for the students.

In the elaborations below, the section entitled '*Recommended knowledge*' is focused on the knowledge associated with the outcome. The section entitled '*Recommended skills*' is focused on the skills that students are expected to develop in association with each outcome.

E

## Culture and Community

Strand: Me and my environment		Substrand: Using and caring for resources	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.1.1</b> Identify resources we use from the environment	<b>1.1.1</b> Illustrate how resources are used in the environment	<b>2.1.1</b> Use, reuse and care for things in the environment
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>• recognise resources in the environment such as plants, animals, land, forest, people and water</li> <li>• understand that different resources have different uses such as:               <ul style="list-style-type: none"> <li>– animals for clothes, food and tools</li> <li>– plants for food, clothing, shelter and transport</li> <li>– marine life for food</li> <li>– water for living animals</li> </ul> </li> <li>• know names of different resources such as plants used regularly</li> <li>• be aware of resources on the land and in the water</li> <li>• recognise different types of resources in the community</li> </ul>	<ul style="list-style-type: none"> <li>• know the names and uses of different plants and animals</li> <li>• know stories and legends about useful resources such as water, rainforest, sea and plants</li> <li>• recognise types of soil that are good for planting different plants</li> <li>• recognise different types of environment we use for different purposes</li> <li>• understand simple food chains</li> <li>• know the importance of different resources such as               <ul style="list-style-type: none"> <li>– sea for food, homes for fish or sea animals and transport</li> <li>– rainforest for homes, transport, shelter, food and clothes</li> </ul> </li> <li>• recognise useful parts of plants and animals that are used for food, for planting, tools</li> </ul>	<ul style="list-style-type: none"> <li>• know stories and legends about animals and plants people use regularly</li> <li>• know parts of plants, animals and made things people use and reuse for many purposes</li> <li>• understand basic rules for caring for things we use and reuse at home, school and around the environment</li> <li>• know that changes in the environment may be caused by people</li> <li>• be aware of some bad practices that happen in the community that damage the natural environment, such as breaking bottles, cutting down trees, throwing rubbish into the river</li> <li>• understand the importance of using and reusing soil</li> </ul>

Strand: Me and my environment	Substrand: Using and caring for resources
<b>Recommended skills and suggested activities</b> <ul style="list-style-type: none"> <li>identify and describe different types of resources that are common</li> <li>describe ways of looking after the common resources they use</li> <li>describe uses of different types of resources such as leaves for clothes, fruits for food, wood for shelter and logs for transport</li> <li>express personal views about the use of different types of resources around them</li> <li>ask community members questions about the resources they use</li> </ul>	<ul style="list-style-type: none"> <li>describe uses of different plants and animals</li> <li>identify what different parts of plants and animals are used for</li> <li>demonstrate how common animals and plants are cared for</li> <li>identify what harmful animals and plants can do to human beings</li> <li>use a variety of methods to show how some plants and animals help us</li> <li>describe how resources are used for different purposes</li> </ul>

Strand: Me and my environment		Substrand: Exploring environments	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.1.2</b> Sort common things from their environment into living and non-living things	<b>1.1.2</b> Identify uses of common living and non-living things in their environments	<b>2.1.2</b> Identify where living things are found in the environment
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know names of a variety of living and non-living things and their characteristics such as leaves of different colours</li> <li>know that different living and non-living things are found in different environments</li> <li>understand the difference between living and non-living things</li> <li>recognise that land is used for different purposes</li> <li>know that some living and non-living things can be harmful</li> </ul>	<ul style="list-style-type: none"> <li>know the uses of different living and non-living things</li> <li>recognise the habitats or natural homes of living things</li> <li>know that it is good to use safety rules for living and non-living things</li> <li>be aware of safety rules when using living and non-living things</li> <li>describe how some plants and animals help us</li> </ul>	<ul style="list-style-type: none"> <li>recognise places where specific groups of living things such as food crops, fish, certain plants and animals are found in the environment</li> <li>know certain places that some living things go to have their young</li> <li>understand that living things depend upon each other for survival</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>share experiences about common living and non-living things in the environment</li> <li>group things found in the community into living and non-living things</li> <li>compare differences between living and non-living things</li> </ul>	<ul style="list-style-type: none"> <li>identify and group non-living and living things according to their common uses</li> <li>demonstrate the use of living and non-living things through role-play and drawings</li> <li>apply safety rules when using living and non-living things</li> <li>use a wide range of methods to illustrate the use of living and non-living things</li> <li>use maps and diagrams to show where certain things such as the village, gardens and rubbish pits are in the environment</li> </ul>	<ul style="list-style-type: none"> <li>construct mosaics or wall displays using scraps such as paper, leaves and plastic bags showing where living things are</li> <li>make things like flowers, decorations from waste material</li> <li>describe where living things grow best in the environment</li> <li>observe and create drawings, pictures and models to show where living things are found</li> </ul>

Strand: Me and my environment		Substrand: Exploring environments	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.1.3</b> Use their senses to gather information about the environment	<b>1.1.3</b> Use different ways of collecting information about the environment	<b>2.1.3</b> Interpret and record information gathered about the environment
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know the five senses: sight, sound, smell, touch and taste</li> <li>recognise sounds made by animals, insects and people in their environment</li> <li>understand the uses of our senses</li> <li>know that our senses are important and helpful in many ways</li> </ul>	<ul style="list-style-type: none"> <li>know the signs in the natural environment that may indicate different events and happenings such as lightning, thunder and clouds</li> <li>understand traditional ways of collecting information about the environment</li> <li>know ways of observing and inquiring about how things happen</li> <li>know that our senses can help us to learn about our environment</li> <li>recognise traditional ways for finding directions of wind blowing at different times of the year</li> </ul>	<ul style="list-style-type: none"> <li>recognise traditional and modern ways of collecting and recording information about the natural and built environment</li> <li>understand that it is important to learn about people and other living things that share the environment</li> <li>know how to look for specific information on how things happen in the environment</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>use sense of sight, smell, hearing, touching and tasting to gather information about common living things in the environment</li> <li>sort things into groups such as hot, cold, big, small, sweet, sour, long, short, rough, smooth using their senses</li> <li>identify and describe things around them using their senses</li> <li>use different ways of finding out about things</li> </ul>	<ul style="list-style-type: none"> <li>interview community members to gain information about different natural signs such as flowering plants at certain times of the year</li> <li>identify and discuss common plants and animals that are in their environment</li> <li>imitate and interpret different sounds of animals</li> <li>encourage each other to share experiences about their environment</li> </ul>	<ul style="list-style-type: none"> <li>collect information about rivers, forests and swamps in their environment</li> <li>interpret the meanings of movements in dance, symbols, patterns and designs and how they relate to real life activities</li> <li>observe and question why certain things happen in their environment</li> <li>present information about their environment in a variety of ways such as displaying crafts and drawing pictures</li> <li>record and present information about natural happenings such as drought, floods, wind and volcanoes</li> </ul>

Strand: Me and my environment		Substrand: Changes in natural and human communities	
	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.1.4</b> Recognise changes that occur in the natural environment	<b>1.1.4</b> Recognise the importance of natural events in the environment	<b>2.1.4</b> Describe the links between environmental events and activities in the community calendar
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>recognise changes such as making roads and gardens and felling trees that are made by people in the natural environment</li> <li>understand that some changes can cause danger to people, animals and plants</li> <li>understand different seasonal changes for animals and plants</li> <li>know stories and legends about natural happenings that have caused changes to the natural environment in the past and today</li> </ul>	<ul style="list-style-type: none"> <li>know when different plants bear fruit, when certain fish appear in the sea and when certain birds appear in the trees in different seasons</li> <li>know natural events that change the features of the natural environment</li> <li>know traditional beliefs, myths and legends about natural events in the environment</li> <li>know how seasonal changes affect plants and the movement of fish, birds and animals</li> </ul>	<ul style="list-style-type: none"> <li>recognise seasonal activities and relate them to community activities in the community calendar</li> <li>know traditional and modern months and link the activities to the community calendar</li> <li>understand the links between modern and traditional events</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>experience stories about changes such as logging that affect themselves and their community</li> <li>talk about different seasonal changes and how they affect their community</li> <li>draw pictures and make models to illustrate different seasonal activities such as planting, harvesting and hunting</li> </ul>	<ul style="list-style-type: none"> <li>use mime, role-play and drama to show ways of avoiding dangers from changes such as tsunami, earthquakes, floods and landslides in the natural environment</li> <li>explain reasons why people do certain things at a certain time of the year</li> <li>identify good and bad changes that take place in the local area and how they affect the people and other living things</li> </ul>	<ul style="list-style-type: none"> <li>keep a journal of events and activities that take place in the environment</li> <li>make a community calendar to link the events and activities that happen in the environment</li> <li>present a play or mime to illustrate important events from the community calendar</li> <li>identify and give reasons why particular events occur at certain times of the year</li> </ul>

Strand: Me and mMy Community		Substrand: Relationships	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.2.1</b> Identify relationships within their own family	<b>1.2.1</b> Describe their family structure and cultural backgrounds	<b>2.2.1</b> Identify similarities and differences between family generations
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>• know the roles and responsibilities of each family member</li> <li>• recognise ways of approaching, communicating, sharing, and caring for members of the family</li> <li>• understand the importance of living together as family members</li> </ul>	<ul style="list-style-type: none"> <li>• know the cultural group they belong to</li> <li>• know their family origins such as the clans their father and mother belong to</li> <li>• recognise the relationships they have in their family and extended families</li> <li>• be aware of their behaviour when talking to people of different age groups</li> <li>• understand that families belong to a cultural group</li> </ul>	<ul style="list-style-type: none"> <li>• know important people in the clan</li> <li>• know the roles of different age groups in their clan and community</li> <li>• recognise different ways of communicating with certain people in the community or clan</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>• describe things they can do for their family members</li> <li>• imitate the roles of the members of the family</li> <li>• illustrate through role-play and mime to show what family members do for each other</li> <li>• identify and talk about positive relationships within their families</li> <li>• demonstrate ways of approaching other members of the family to ask for things politely, offer to help and be considerate</li> <li>• participate in family activities such as sharing things and working together</li> </ul>	<ul style="list-style-type: none"> <li>• describe the members that make up their family</li> <li>• use role-play and mime to show activities that they do for their own families and other clan members</li> <li>• listen to and retell stories about the origins of their family members</li> <li>• tell stories about activities they are expected to do together to help their clan members</li> <li>• identify origins of different crafts with symbols, design and patterns found in the community</li> </ul>	<ul style="list-style-type: none"> <li>• illustrate through role-play and mime things we do to show good relationships in the clan and family</li> <li>• draw a family tree to show the origins of their family</li> <li>• use drawings and pictures to illustrate the types of activities that they can do with family and clan members to maintain good relationships</li> <li>• make posters such as the different ways of dressing, types of food and ways of life to show different family generations</li> <li>• write about activities we do today compared to what other groups did in the past</li> <li>• mime roles different age groups of people do in the community</li> </ul>

Strand: Me and My Community		Substrand: Meeting needs	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.2.2</b> Identify needs of living things	<b>1.2.2</b> Describe how living things meet their needs and satisfy their wants	<b>2.2.2</b> Describe how other groups meet their needs and satisfy their wants
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know that all living things such as people, plants and animals need air, food, water and shelter to survive</li> <li>know that plants need air, water, nutrients, sunlight and a suitable temperature to grow</li> <li>understand that living things depend on each other for their basic needs for survival</li> <li>know that needs of living things change over time</li> <li>know that people need love and support to stay healthy</li> </ul>	<ul style="list-style-type: none"> <li>know the difference between needs and wants</li> <li>know that different living things meet their needs in different ways</li> <li>know that people meet their needs in different ways to other living things such as plants and animals</li> <li>know that people do things to meet their own needs and satisfy their own wants and those of others, including people with special needs</li> <li>understand roles and responsibilities to meet needs and wants of self and others</li> </ul>	<ul style="list-style-type: none"> <li>understand that different groups of people and other living things have different needs and wants</li> <li>understand that different people have different ways of meeting their needs and wants</li> <li>recognise the obligations and benefits of different groups of people in meeting their needs and wants</li> <li>know that there are many ways of interacting with people to meet their special needs and wants</li> <li>recognise different ways families live and do things in the community to meet their needs</li> <li>know that some living things form groups because of their common needs</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>observe and talk about what different living things need to stay alive</li> <li>illustrate things we do to care for common plants and animals we use</li> <li>look at the difference between needs of different living things</li> <li>interpret what living things need by observing animals and plants outside</li> <li>illustrate by drawing how needs of living things change over time</li> </ul>	<ul style="list-style-type: none"> <li>identify how different living things meet their needs and satisfy their wants</li> <li>use role-play or drama to show how living things meet their needs and how people satisfy their wants</li> <li>illustrate tasks people do to meet their needs and the needs of other living things by making a chart or poster</li> <li>display common things that people need and want from their community</li> </ul>	<ul style="list-style-type: none"> <li>describe by drawing and writing how groups of living things meet their needs and satisfy their wants</li> <li>identify needs and wants of different living things from sample objects and pictures</li> <li>use pictures or samples to identify and explain in their own words about needs and wants of living things</li> <li>talk or write about the roles, rights and responsibilities of different groups of people and how these help them to meet their needs and satisfy their wants</li> <li>make a mural or collage to show what different groups do to help meet human needs</li> </ul>

Strand: Me and My Community		Substrand: Living and working together	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning Outcomes</b>	<p><b>P.2.3</b> Identify familiar places used by the people of the community</p>	<p><b>1.2.3</b> Identify and care for places that provide services in the community</p>	<p><b>2.2.3</b> Demonstrate where important places are found in their community</p>
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know places people use for special activities in the community</li> <li>understand that familiar places they use must be cared for</li> <li>be aware of when they come into contact with familiar places in the community</li> <li>know the importance of some of the places in the community</li> </ul>	<ul style="list-style-type: none"> <li>recognise places that provide special services for different groups of people in the community</li> <li>know things that individuals or groups do to provide services for the community</li> <li>know the special services individuals get at certain places in the community</li> </ul>	<ul style="list-style-type: none"> <li>understand the importance of certain places in the community</li> <li>recognise simple maps and models of important places in the community</li> <li>understand the signs on important places and what they mean</li> <li>know special places that provide special help</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>name and describe the uses of familiar places in the community</li> <li>listen to an elder talk about certain places in the community</li> <li>talk about different laws, rights and taboos of certain places</li> <li>describe good and bad things about familiar places</li> <li>abide by the laws and taboos of familiar places</li> <li>participate in activities to take care of familiar places</li> <li>draw tools and other things used to take care of those places</li> </ul>	<ul style="list-style-type: none"> <li>visit and talk about certain places that provide services for their community</li> <li>make models of places that provide services to the community</li> <li>draw pictures of places that provide help for the communities and their families</li> <li>write captions or a few sentences explaining what services are provided at certain places in the community</li> <li>explain how services help the community and their families</li> <li>make a puppet-play showing roles of people who provide help to the community</li> </ul>	<ul style="list-style-type: none"> <li>identify where important places are found in the community</li> <li>express the importance of those places</li> <li>draw simple maps of the community showing where important places are</li> <li>make a model of places using plasticine, mud or empty cartons</li> <li>give directions on how to get from one important place in the community to another</li> <li>draw pictures of important places in the community</li> <li>identify different signs of important places</li> </ul>

Strand: Me and My Community		Substrand: Events and ceremonies	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.2.4</b> Participate in cultural and ceremonial activities	<b>1.2.4</b> Describe how traditional practices reflect the identities of cultural groups	<b>2.2.4</b> Explain different beliefs and customs from current and past times
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know about different cultural activities and ceremonies in their community</li> <li>recognise different decorations, bilas and dressing for specific occasions</li> <li>understand the importance of cultural activities</li> <li>know when certain community or cultural activities occur in the year</li> </ul>	<ul style="list-style-type: none"> <li>understand that different cultural groups have their own traditional dances, songs, designs, patterns and traditional crafts</li> <li>know the sacred places and taboos of their cultural group</li> <li>recognise different signs, symbols and rituals in their culture</li> <li>know that cultural patterns can be put in the bilas</li> </ul>	<ul style="list-style-type: none"> <li>know different local beliefs and cultures from the past to present</li> <li>understand traditional and modern beliefs about making things</li> <li>recognise stories and legends about their community and people around them</li> <li>know some significant events from the past and present</li> <li>recognise traditional and modern symbols and their meaning in the community</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>participate in traditional singsing</li> <li>make bilas for body decorations</li> <li>dress up for singsing with the help of an adult or elder</li> <li>perform body movements and actions to the sound of a kundu beat</li> <li>identify main celebrations of the year</li> <li>identify and talk about what they are celebrating</li> </ul>	<ul style="list-style-type: none"> <li>describe occasions and celebrations such as bride price and birthdays</li> <li>talk about landmarks and ritual places</li> <li>discuss main ideas and points of some local stories and legends</li> <li>tell the difference between traditional and other special occasions</li> <li>make bilas that represent their own cultural or clan group</li> <li>identify different cultural groups through facial appearance</li> </ul>	<ul style="list-style-type: none"> <li>display and talk about artefacts of their area</li> <li>draw and label artefacts from the past and present</li> <li>take part in local celebrations and events</li> <li>tell how some stories and beliefs have changed</li> <li>write about different signs and symbols of their own clan or community</li> <li>identify differences in the way of life in the past and today</li> <li>value and show pride in their beliefs and customs</li> </ul>

Strand: Me and My Community		Substrand: Arts	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<p><b>P.2.5</b> Observe and identify arts for their own clan and cultural groups</p>	<p><b>1.2.5</b> Show how arts are used in their community</p>	<p><b>2.2.5</b> Apply a range of arts skills and techniques for different purposes</p>
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>understand that arts are important, including patterns, designs and traditional crafts for their own clan and cultural groups</li> <li>recognise their clan handicrafts</li> <li>know instruments, tools and ornaments used in their community</li> <li>recognise the traditional music and dances from their own clan</li> <li>know that traditional musical instruments can be made and used</li> </ul>	<ul style="list-style-type: none"> <li>know that some cultural arts are used in the community for different purposes</li> <li>recognise different forms of arts</li> <li>recognise arts used in traditional dances, ornaments, costumes, chants, poems and crafts</li> <li>know traditional totems of their own people</li> <li>understand the importance of their cultural arts</li> </ul>	<ul style="list-style-type: none"> <li>understand the importance of different arts</li> <li>recognise traditional activities such as spear-making, bilum making and basket weaving that use special skills</li> <li>know the meanings of legends, stories, chants and symbols</li> <li>recognise people with special skills such as dancers, fishermen, hunters and magicians</li> <li>know different decorations that are used by men or women only</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>observe and talk about art such as prowboards of canoes, designs on buildings, kundu drums, locally made tools, bows and arrows and grass skirts they see in their community</li> <li>draw or paint patterns and designs of their own clan</li> <li>make toys or other items their people make in their community</li> <li>thread simple necklaces using local materials</li> <li>draw masks expressing their local designs with permission of clan-owners</li> <li>take part in traditional singsing</li> </ul>	<ul style="list-style-type: none"> <li>make a display with captions of different types of arts of their cultural groups</li> <li>describe different signs and symbols of their own cultural group</li> <li>make and use simple bilas</li> <li>perform traditional dances</li> <li>write descriptions of how certain things like head-dress, ornaments, drums and other crafts are made and used</li> </ul>	<ul style="list-style-type: none"> <li>make and use traditional tools, bilas and instruments</li> <li>tell stories or legends about certain activities and events</li> <li>participate in traditional activities</li> <li>create and perform dances, play and movement for different occasions</li> <li>dramatise characters such as hunters, fishermen, dancers and warriors from stories or legends</li> <li>sing songs with instruments</li> </ul>

Strand: Me and My Health		Substrand: Moving and growing	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning Outcomes</b>	P.3.1 Explore basic movements	1.3.1 Perform basic movements and skills	2.3.1 Demonstrate a range of controlled movements and skills for different purposes
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know the basic body movements such as twisting, bending and stretching</li> <li>know the common movements such as hopping, running, leaping, jumping, skipping and walking for moving their bodies from one place to another</li> <li>know names of common and basic movements</li> <li>recognise movement games</li> <li>understand that you can move to music and other sounds</li> </ul>	<ul style="list-style-type: none"> <li>know that different body parts perform different movement skills</li> <li>recognise simple movement patterns</li> <li>understand coordinated movements</li> <li>know that basic movement skills can be performed with simple or improvised equipment</li> <li>understand that basic movements can be performed in a number of ways</li> </ul>	<ul style="list-style-type: none"> <li>know different types of basic movement skills which are coordinated for speed, direction and level</li> <li>recognise simple movement patterns and sequences</li> <li>know that improvised equipment can be used to perform movements</li> <li>know that safety is important when performing movements</li> <li>know parts of the body that carry weight when moving</li> <li>recognise basic combined movements and skills to perform simple game skills</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>perform during free play such movements as swaying, rolling and bending</li> <li>create a variety of movement patterns by combining movements such as jumping and skipping</li> <li>move specific parts of the body in response to different instruments such as drums</li> <li>imitate movements following a leader</li> <li>express different feelings with their faces</li> </ul>	<ul style="list-style-type: none"> <li>identify movements for different body parts, such as kicking and balancing</li> <li>perform simple movement sequences with and without equipment</li> <li>perform coordinated movements such as catching, throwing at a target and kicking a ball with a partner</li> </ul>	<ul style="list-style-type: none"> <li>perform movements such as hitting and lifting with and without equipment</li> <li>demonstrate movements for playing alone or in groups</li> <li>control movements to show changes in speed, direction and level</li> <li>take weight on different parts of the body such as hands, knees, back and hips</li> </ul>

Strand: Me and My Health		Substrand: Games and activities	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.3.2</b> Create and play simple games	<b>1.3.2</b> Play traditional, seasonal and introduced games and activities	<b>2.3.2</b> Take part in modified games according to the rules
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>understand the importance of using rules in simple games</li> <li>recognise traditional games and activities played at certain times of the year</li> <li>know that simple movement games can be created</li> <li>understand safety rules for simple games, equipment and playing fields</li> <li>be aware of safe and unsafe environment for playing simple games</li> <li>know that improvised equipment can be made and used to play simple games</li> </ul>	<ul style="list-style-type: none"> <li>understand the importance of having rules in traditional and minor games</li> <li>know that safety rules prevent injury in games</li> <li>recognise seasonal, traditional and introduced games</li> <li>understand that all students must participate in play activities</li> <li>recognise play activities where only boys or girls participate</li> </ul>	<ul style="list-style-type: none"> <li>understand simple rules for group, minor, traditional or simple modified games</li> <li>understand that improvised equipment can be made and used in simple modified and traditional games</li> <li>recognise safe play areas and fields and safety rules to prevent injuries in games</li> <li>understand that games can be created with their own rules and improvised equipment</li> <li>know that in any play activity there must be gender equity so that it is fair for girls and boys</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>use safety rules in games</li> <li>discuss and play traditional games and activities</li> <li>play different games at certain times of the year</li> <li>create and perform free-play games in groups, pairs or alone</li> <li>create and play simple movements in games</li> <li>use simple body coordination in games such as shooting targets</li> <li>select or choose simple games they like to play in groups, pairs or alone</li> </ul>	<ul style="list-style-type: none"> <li>use rules to play traditional and introduced games</li> <li>use safety rules in different seasonal games</li> <li>participate actively in traditional and introduced games with guided rules</li> <li>discuss the importance of traditional rules for games</li> <li>make materials for traditional games where applicable</li> <li>respect and cooperate with others during games and activities</li> </ul>	<ul style="list-style-type: none"> <li>participate in games</li> <li>play obstacle games following guided rules</li> <li>discuss and follow rules of simple modified games</li> <li>make own games and rules to suit the time of the year and the environment</li> <li>use rules consistently and fairly</li> <li>perform skills in games with moderate success</li> </ul>

Strand: Me and My Health		Substrand: Hygiene, nutrition and safety	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	P.3.3 Identify things they do that can encourage nutrition, personal safety and hygiene	1.3.3 Describe activities that promote hygiene and healthy living in the community	2.3.3 Describe cultural practices that encourage healthy living
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know basic hygiene and safety rules for self, home and school</li> <li>understand that safety rules prevent accidents</li> <li>know that it is important to take care of their bodies</li> <li>recognise nutritious food in the local community</li> <li>know that eating nutritious food is good for their bodies</li> <li>know that it is important to have three main meals every day</li> </ul>	<ul style="list-style-type: none"> <li>know that homes, classrooms and villages must be clean all the time</li> <li>recognise locally grown food that is nutritious for their bodies</li> <li>know that activities such as sleeping, relaxing and exercising are very good for the body</li> <li>understand that it is important to care for their bodies</li> <li>know that some places in the community must be kept clean at all times</li> <li>be aware of healthy activities in which the community participates</li> <li>recognise dangerous situations such as a flooding river, bushfire, sharp knives and know how to act to prevent accidents</li> </ul>	<ul style="list-style-type: none"> <li>know healthy and helpful cultural practices such as cooking, sharing and preparing food together</li> <li>recognise traditional attitudes and behaviour that are positive and healthy</li> <li>recognise foods locally available that protect us from sicknesses, help our bodies to grow and give us energy</li> <li>know that traditional or modern safety measures are important in travel or any activity where people participate</li> <li>recognise local herbs used for curing sicknesses, sores or skin diseases</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>demonstrate personal hygiene practices such as washing hands after using the toilet</li> <li>identify people in the community that they can trust</li> <li>identify animals and plants that are dangerous to avoid</li> <li>apply simple rules to avoid accidents</li> <li>draw pictures of food they can eat for healthy body</li> <li>perform role-play of safety practices at home and at school</li> </ul>	<ul style="list-style-type: none"> <li>mime or role-play safe, healthy living such as cleaning and burying rubbish</li> <li>draw pictures to show healthy living activities they do in their community</li> <li>draw and label pictures of different types of healthy food</li> <li>talk about what their people do when people are sick in their community</li> <li>talk about things such as having vaccinations and having a good diet that their family members do to stop sickness</li> </ul>	<ul style="list-style-type: none"> <li>write about helpful cultural practices such as caring for others in the family, clan and community</li> <li>listen to guest speakers talk about positive health attitudes and behaviours</li> <li>participate in preparing food using healthy habits</li> <li>role-play some cultural practices to show healthy living</li> <li>describe the use of different herbs and cures brought to the classroom</li> </ul>

## Cultural Mathematics

Strand: Space		Substrand: Space	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<p><b>P.1.1</b> Follow and give simple directions for moving in a space</p>	<p><b>1.1.1</b> Follow and give directions to move from place to place</p>	<p><b>2.1.1</b> Follow directions from simple maps</p>
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know local names for directions such as east is where the sun rises and west is where the sun sets</li> <li>know direction words such as sideways, forwards and backwards, to the left or to the right</li> <li>know position words such as on, under, on top of and next to</li> <li>understand simple instructions to move from one place to another</li> <li>use direction words like forwards and backwards in activities such as playing games</li> <li>be aware of things moving in space such as the movement of clouds, wind, animals, cars and trucks</li> </ul>	<ul style="list-style-type: none"> <li>give directions based on everyday life, for example give directions on how to walk from the school back to your house</li> <li>follow a simple sequence of movements</li> </ul>	<ul style="list-style-type: none"> <li>locate familiar locations such as a market place, street, house, school by following directions from a simple map</li> <li>use the language of direction in describing maps and locations</li> <li>use direction words in vernacular and English such as turn left, turn right, go up, go down</li> <li>understand words that describe directions and locations on a model of the village</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>give and follow directions using position words such as forwards, backwards, to the left and to the right</li> <li>make lists of local names for directions such as east and west</li> <li>use direction words to move in a space</li> <li>follow simple directions for moving from room to room in school or to the bus stop and back</li> </ul>	<ul style="list-style-type: none"> <li>give directions to a person to find a place in the community</li> <li>respond appropriately to and use the language of position such as under, behind, in front of, below, on, alongside, near, right and left</li> <li>respond appropriately to and use language movements such as back, forward, round, past and turn</li> </ul>	<ul style="list-style-type: none"> <li>use appropriate words to describe directions on how to get to a location using simple maps</li> <li>make simple maps of the classroom and school</li> <li>make a model to show where familiar places are in the community</li> <li>locate familiar places on the model such as the market, streets, houses and the school</li> </ul>

Strand: Space		Substrand: Shape	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning Outcomes</b>	<b>P.1.2</b> Identify locally known shapes by their visual appearance	<b>1.1.2</b> Compare and group shapes in the community	<b>2.1.2</b> Investigate and describe the features of geometric shapes
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>• recognise locally known shapes of objects such as vegetables, fruits and utensils</li> <li>• know vernacular names for shape words such as circle, square, rectangle, round, curved, straight</li> <li>• identify shapes used in pictures, drawings, carvings and buildings</li> </ul>	<ul style="list-style-type: none"> <li>• know comparison words such as bigger, smaller, straight and curved to describe differences and similarities in shapes in vernacular</li> <li>• recognise features of different shapes such as edges, curves and corners</li> <li>• identify common shapes seen in objects such as the front of houses, walls of the house and buildings</li> </ul>	<ul style="list-style-type: none"> <li>• know that geometric shapes can have edges, faces and corners</li> <li>• know and use vernacular and English words and descriptions for various shapes</li> <li>• know that geometric shapes have different features</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>• make models of locally known shapes using sand, clay or mud</li> <li>• name and describe different shapes of objects collected</li> <li>• gather and trace shapes of different objects such as leaves, fruit and branches</li> <li>• sort their collections into similar shapes</li> </ul>	<ul style="list-style-type: none"> <li>• identify and group different shapes in the environment</li> <li>• group objects and say why they are grouped together</li> <li>• recognise and name simple shapes and objects and use everyday language to describe them</li> <li>• name and identify different shapes</li> <li>• identify and discuss types of shapes such as curved, round, sharp or flat</li> <li>• make a model of a given shape such as the shape of a house</li> </ul>	<ul style="list-style-type: none"> <li>• compare and group shapes according to differences and similarities</li> <li>• use local materials to make common geometrical shapes</li> <li>• group common geometrical shapes according to edges, faces and corners</li> <li>• describe different features of geometrical shapes such as edges, faces and corners</li> <li>• use vernacular and English words and descriptions for various shapes</li> </ul>

Strand: Measurement		Substrand: Measuring and estimating	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<p><b>P.2.1</b> Measure the length, weight and capacity of things using their own informal measuring units</p>	<p><b>1.2.1</b> Measure and compare the length, weight and capacity of things using local informal units</p>	<p><b>2.2.1</b> Compare the accuracy of local measures of length, weight and capacity</p>
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>measure the length of common objects such as buildings, sticks, gardens and playgrounds using their own units such as footsteps or hand spans</li> <li>measure the weight of certain objects by comparing them with other known objects. For example, is it lighter or heavier than a coconut?</li> <li>use the vernacular terms for light and heavy</li> <li>measure the capacity of water in different containers: small, medium, large</li> </ul>	<ul style="list-style-type: none"> <li>know the local units of measurement</li> <li>know the words that help you compare different measurements such as short, long, light, heavy, tall, short, full, empty</li> <li>know that capacity means the space inside a container</li> <li>use comparison words in vernacular</li> </ul>	<ul style="list-style-type: none"> <li>know traditional ways of measuring length, weight and capacity</li> <li>know comparison words in vernacular</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>match and compare length and height using their own units</li> <li>collect items of different weight and arrange them in order from lightest to heaviest using their own units</li> <li>match and compare light and heavy objects</li> <li>arrange light and heavy objects in simple order</li> </ul>	<ul style="list-style-type: none"> <li>compare different lengths of measurement</li> <li>match, compare, guess and order different weights</li> <li>use comparison words such as light, lighter, lightest</li> <li>use different containers and other items to measure capacity</li> <li>draw pictures of objects and label them using local informal units</li> </ul>	<ul style="list-style-type: none"> <li>collect objects of different lengths</li> <li>guess their lengths and order them</li> <li>write the names of objects in order</li> <li>measure capacity using various common containers</li> <li>compare local ways of measuring weight</li> <li>measure lengths in different ways and decide which method was more accurate</li> </ul>

Strand: Measurement		Substrand: Area	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.2.2</b> Measure how much space is covered by objects using their own informal units	<b>1.2.2</b> Compare and measure an area using local ways of measuring	<b>2.2.2</b> Estimate the number of objects needed to cover a surface
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know that flat surfaces such as books, sleeping mats and tabletops take up space and that you can measure that space</li> <li>know that you can use local units to measure flat surfaces</li> <li>know the vernacular words to describe area</li> </ul>	<ul style="list-style-type: none"> <li>know vernacular comparison words such as big, bigger, biggest, small, smaller, smallest</li> <li>know some informal units suitable for measuring area of surfaces</li> </ul>	<ul style="list-style-type: none"> <li>know how to take a clever guess to find out how many objects will cover a flat surface</li> <li>recognise examples of when family and community members need to know the area of a space, such as when they are planting a garden, marking out the space for their houses or painting a wall</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>place objects such as shells or stones to cover flat surfaces and count how many shells or stones it takes</li> <li>use vernacular words to describe the amount of space taken by different flat surfaces</li> </ul>	<ul style="list-style-type: none"> <li>measure, and compare the areas of flat surfaces in the classroom and the school yard</li> <li>sort them from biggest to smallest</li> <li>play games to sort and group objects by the amount of flat space they take up: area</li> </ul>	<ul style="list-style-type: none"> <li>estimate or guess how many leaves, stones or shells it will take to cover a garden bed or other flat surface</li> <li>count objects used and see whose estimate was the closest</li> <li>play games to estimate areas within the school grounds and compare with the actual areas</li> </ul>

Strand: <b>Measurement</b>		Substrand: <b>Time</b>	
<b>Grades</b>	<b>Elementary Prep</b>	<b>Elementary 1</b>	<b>Elementary 2</b>
<b>Learning Outcomes</b>	<p><b>P.2.3</b> Use time markers</p>	<p><b>1.2.3</b> Tell and use time in traditional ways</p>	<p><b>2.2.3</b> Identify and sequence events that occur at different times</p>
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>• recognise parts of the day</li> <li>• know which days are school days and which days are weekends</li> <li>• know the times for greetings, such as saying 'good morning', 'good afternoon' in their vernacular</li> </ul>	<ul style="list-style-type: none"> <li>• identify different parts of the day and night</li> <li>• know the months of the year</li> <li>• know the months when the wet and dry seasons start</li> <li>• know about common traditional days used for harvesting crops, fishing and hunting</li> <li>• know the main divisions of the school year, half year and terms</li> </ul>	<ul style="list-style-type: none"> <li>• know the months for major events in the year</li> <li>• know the days of the week in vernacular and English</li> <li>• know the months of the year in vernacular</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>• use time markers such as morning, midday, afternoon and night and day</li> <li>• use 'before' and 'after'</li> <li>• identify days of the week</li> <li>• order events in time</li> <li>• estimate time intervals in make-up units</li> <li>• talk about some annual events and celebrations such as harvest time, Easter, Independence Day, Christmas Day</li> </ul>	<ul style="list-style-type: none"> <li>• name different parts of the day and night</li> <li>• tell times using their traditional ways</li> <li>• identify wet and dry seasons</li> <li>• use the traditional calendar to list seasons and other events</li> <li>• list important events of the year when feasts and celebrations occur</li> </ul>	<ul style="list-style-type: none"> <li>• name the major events in the year such as Education Week, Independence Day, Easter and Christmas</li> <li>• name the events that take place in their community cultural calendar</li> <li>• tell a sequence of events using time words like 'first', 'then', 'next'</li> <li>• name the days and months of the year</li> <li>• list the weather patterns and activities for each season</li> <li>• mark daily events on a calendar</li> </ul>

Strand: Number		Substrand: Counting	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	P.3.1 Count objects in vernacular using local number systems	1.3.1 Count groups of objects in the vernacular	2.3.1 Count objects in vernacular and English using local and standard number systems
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know the names of numbers from zero to the highest number possible in the vernacular</li> <li>understand the concept of numbers from zero to ten or higher where possible</li> <li>understand the order of local numbers</li> <li>recognise representations of local numbers</li> </ul>	<ul style="list-style-type: none"> <li>understand that concrete objects can be grouped using local numbers</li> <li>understand the value of counting in local numbers</li> <li>know local double-digit numbers if there are any in the local number system</li> <li>recognise and use local numbers in written form</li> <li>represent the concept of number with concrete objects and say the name of the number</li> <li>understand the concept of 'place value'</li> <li>write and know the words from zero to ten or highest number possible</li> <li>know how to count by twos, fives and tens</li> </ul>	<ul style="list-style-type: none"> <li>count objects and groups of objects in both vernacular and English</li> <li>write numerals and words for each number in vernacular</li> <li>recognise the use of local numbers in traditional or free play</li> <li>understand the value of local and standard number systems</li> <li>know that both number systems can be used side by side</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>count in vernacular using concrete objects</li> <li>match objects to numbers, one to one</li> <li>count on from a given number</li> <li>sequence and count objects</li> <li>match number names with sets of familiar items</li> </ul>	<ul style="list-style-type: none"> <li>name numbers from zero to the highest number that is possible in vernacular</li> <li>count common objects in groups by their own number words</li> <li>count groups of common objects such as fish, peanuts or kaukau</li> <li>match local number words with groups of objects</li> </ul>	<ul style="list-style-type: none"> <li>count numbers from zero to a hundred in English using the international number system</li> <li>match concrete objects with English and vernacular number words</li> <li>read and write number words in vernacular up to 100</li> <li>count to 100 in groups of twos, fives, and tens in vernacular and in English</li> <li>count numbers accurately in card games, board games and playground activities</li> <li>write locally used position numbers: ordinal numbers from first to tenth or as far as the language can go</li> <li>say the position or ordinal numbers in English</li> </ul>

Strand: Number		Substrand: Mathematical language	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.3.2</b> Describe the four operations using simple vernacular words	<b>1.3.2</b> Use number symbols that mean the same as vernacular number words	<b>2.3.2</b> Use vernacular and English words for number symbols and operational signs
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know vernacular words for operations: addition or putting together, subtraction or taking away, multiplication or grouping and division or sharing</li> <li>recognise number operations in vernacular</li> <li>understand the traditional ways of using local number operations</li> </ul>	<ul style="list-style-type: none"> <li>know that local numbers can be represented in words, pictures or symbols</li> <li>recognise vernacular number words and symbols</li> <li>know how to play simple traditional games and activities</li> </ul>	<ul style="list-style-type: none"> <li>say and write number symbols for vernacular and English words from zero to a hundred</li> <li>know signs for addition, subtraction, multiplication and division</li> <li>understand the number operations and symbols can be used and recognised anywhere in the world</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>use simple vernacular operation words to say what they are doing with concrete materials</li> <li>use concrete objects or pictures to show the four operations such as putting together, taking away, having lots of and sharing equally</li> <li>practise using the vernacular words when exploring simple problems</li> </ul>	<ul style="list-style-type: none"> <li>play simple number-matching games and activities</li> <li>use number symbols to show what they are doing with concrete materials</li> <li>match vernacular words to number symbols</li> <li>use number symbols to make simple number sentences</li> <li>make a set of posters to match number words, symbols and pictures</li> </ul>	<ul style="list-style-type: none"> <li>match numbers, vernacular and English words and pictures</li> <li>count, read and write number words and symbols from zero to a hundred</li> </ul>

Strand: Number		Substrand: Operations	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	P.3.3 Solve simple problems using concrete materials	1.3.3 Solve problems using two-digit numbers to 20 or closest to 20 in vernacular	2.3.3 Solve problems using two-digit numbers up to 99
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>identify ways of solving simple problems</li> <li>know how to show and solve simple number problems using concrete materials</li> <li>know traditional ways of counting that can be used to solve simple number problems</li> </ul>	<ul style="list-style-type: none"> <li>know single and double-digit local numbers in the counting system</li> <li>group objects into lots of, such as two lots of, three lots of</li> <li>know ways to solve simple addition and subtraction problems with no trading</li> <li>share groups of objects into equal parts such as two parts and four parts</li> </ul>	<ul style="list-style-type: none"> <li>know that concrete materials can be used to make number sentences</li> <li>solve multiplication and division problems using concrete materials without trading</li> <li>solve addition and subtraction problems using concrete materials with trading</li> <li>understand one-digit and two-digit number sentences</li> <li>know place value of one-digit and two-digit numbers</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>use traditional ways of solving simple number problems</li> <li>draw pictures to show one or two ways of solving problems</li> <li>show problems with concrete materials</li> <li>add and subtract one and two-digit numbers using concrete materials</li> <li>group objects into lots of, such as lots of two and lots of three</li> <li>share objects into equal groups such as groups of two and groups of four</li> </ul>	<ul style="list-style-type: none"> <li>use concrete materials to solve addition and subtraction problems with no trading</li> <li>use concrete materials to show lots of numbers and to share groups of objects</li> <li>practise making simple number sentences to show problems with concrete materials</li> </ul>	<ul style="list-style-type: none"> <li>use concrete materials to solve two-digit number problems using place value</li> <li>play number games to solve one and two-digit number problems</li> <li>use concrete objects to show one-digit and two-digit number problems</li> </ul>

Strand: Number		Substrand: Money	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning Outcomes</b>	<p><b>P.3.4</b> Describe traditional money and Papua New Guinean money</p>	<p><b>1.3.4</b> Use different amounts of money to make up various sums of money</p>	<p><b>2.3.4</b> Make and solve money problems</p>
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>• recognise traditional forms of money and know their names</li> <li>• know how traditional money is used</li> <li>• know the value of traditional money</li> <li>• know that traditional money is made from things in the environment</li> <li>• recognise Papua New Guinean currency, their names, their uses and their values</li> </ul>	<ul style="list-style-type: none"> <li>• use words in connection with money</li> <li>• know the correct symbols: K for Kina and t for toea</li> <li>• be familiar with Papua New Guinea notes and coins</li> <li>• know when and where money is used</li> </ul>	<ul style="list-style-type: none"> <li>• talk about uses of money in the community</li> <li>• understand the value of Papua New Guinean money</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>• talk about traditional money with community members and get them to explain its value</li> <li>• conduct barter and trade activities</li> <li>• recognise Papua New Guinean money and compare it to traditional currency</li> <li>• identify and sort coins according to colours, shapes, size, edges, animals and numbers</li> <li>• identify and sort the notes by their colours and numbers</li> <li>• use different coins to make up K1.00</li> </ul>	<ul style="list-style-type: none"> <li>• show different notes and coins used</li> <li>• calculate their change from a given amount after shopping or marketing</li> <li>• make up given amounts of money</li> <li>• explain ways used</li> <li>• play 'shop' with change to K10.00</li> </ul>	<ul style="list-style-type: none"> <li>• write vernacular and English names for Papua New Guinean money</li> <li>• write numerals and symbols</li> <li>• give play money in exchange for goods in the classroom shop and put prices on items when playing shop</li> <li>• calculate costs of what they intend to buy</li> <li>• calculate the remaining amount after their spending</li> <li>• check their change</li> <li>• sort coins and notes and recognise that they have different values</li> </ul>

Strand: Pattern		Substrand: Patterns	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.4.1</b> Make simple patterns	<b>1.4.1</b> Recognise various local patterns	<b>2.4.1</b> Collect and compare various patterns
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>recognise locally known patterns such as long and short, repeated lines, repeated curvy lines</li> <li>know how to form patterns, working out how the simple pattern is produced</li> <li>make patterns such as dot patterns, linking cube patterns and pattern cards</li> </ul>	<ul style="list-style-type: none"> <li>recognise different patterns in animal markings and in garden beds</li> <li>see patterns in drawings and weavings</li> <li>recognise different patterns such as long lines, short lines, curved lines and patterns used on bilums and kundu drums on objects</li> </ul>	<ul style="list-style-type: none"> <li>recognise simple patterns on craft items</li> <li>identify simple pattern rules such as over-under-over,</li> <li>repeat sound patterns such as clap-snap-clap</li> <li>show patterns using concrete items such as flower, stick and leaf patterns</li> <li>know the local system of grouping objects using patterns</li> <li>solving simple number patterns</li> <li>play games using patterns</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>make simple patterns</li> <li>draw local patterns</li> <li>create own patterns</li> <li>copy and create patterns involving turning and sliding a shape</li> <li>explore various patterns used in the community or classrooms such as walls, doors and window frames</li> </ul>	<ul style="list-style-type: none"> <li>use simple rules and language such as 'over and over', 'repeat', 'again' to describe patterns</li> <li>draw traditional designs</li> <li>weave or draw patterns</li> <li>create own patterns</li> </ul>	<ul style="list-style-type: none"> <li>identify patterns in music and dance</li> <li>recognise and complete simple number patterns</li> <li>make up representations of a repeating or counting number pattern</li> <li>use common colours to make patterns</li> </ul>

Strand: Chance		Substrand: Chance and information	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<p><b>P.5.1</b> Identify events that always happen regularly in the community</p>	<p><b>1.5.1</b> Identify and describe events that sometimes happen in the community and the environment</p>	<p><b>2.5.1</b> Make guesses about events that will happen, may happen or will never happen</p>
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>use words and expressions to describe different levels of certainty</li> <li>recognise events that are sure to happen</li> <li>know signs that show when events are going to happen</li> </ul>	<ul style="list-style-type: none"> <li>use vernacular expressions for events that sometimes happen in the community and the environment</li> <li>know that things do happen sometimes without signs and warnings</li> </ul>	<ul style="list-style-type: none"> <li>make predictions related to events that may happen or may never happen</li> <li>use vernacular words to describe when events are a certainty</li> <li>use vernacular words to describe uncertainty when events may not happen</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>use language such as 'will happen'</li> <li>use words and expressions to describe activities or events that often happen in the community</li> <li>identify routines such as getting up, going to bed, eating and washing</li> <li>identify daily cycles such as 'the sun comes up and goes down,' 'tides come in and go out'</li> <li>identify rainy and dry season</li> </ul>	<ul style="list-style-type: none"> <li>draw and talk about events that sometimes happen in the community and the local environment</li> <li>use vernacular words to identify and describe things that sometimes happen in the community</li> <li>identify events such as when it is going to rain, when people are going out to catch fish, when fruit is going to be picked, whether the day is going to be clear, when yam is planted and harvested</li> </ul>	<ul style="list-style-type: none"> <li>identify and talk about events that may happen, for example, landslides, volcanic eruption, river flooding, high tides</li> <li>discuss events that might happen, for example, it will rain, it is going to be windy, wet clothes will dry quickly if the wind is strong, the motor will start</li> <li>draw pictures showing certain events and activities and the never-happening events and activities and label them accordingly</li> <li>ordering events from least likely to most likely</li> </ul>

## Language

Strand: Speaking and listening		Substrand: Production	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.1.1</b> Communicate with peers and known adults on familiar topics	<b>1.1.1</b> Communicate with people from the school community on familiar and introduced topics	<b>2.1.1</b> Communicate with people from the community for a range of purpose
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>real-life experience such as stories about themselves, peers, their family members and other known adults</li> <li>current issues and happenings such as weekend games and singing from the community</li> <li>stories about community celebrations such as weddings, feasts and initiations</li> <li>stories and information about animals found in their community</li> <li>legends from their community</li> <li>stories about land animals, water animals, plants, birds, bush, mountains and rivers</li> <li>common rhymes, jingles, chants and poems used in the community</li> <li>role-play and dramas</li> </ul>	<ul style="list-style-type: none"> <li>current events and stories about happenings such as sports events and celebrations in the community</li> <li>know that stories told or read aloud have messages to learn from</li> <li>know some common jokes and riddles and why people tell them</li> <li>experience stories about themselves, their family members and friends</li> <li>identify reasons why people express feelings, needs and wants, likes and dislikes</li> <li>know how to use role-play</li> <li>recognise that news heard on radio or seen on television affects the people in the community</li> <li>recognise oral situations at school such as morning news, school assembly,</li> </ul>	group work and teacher talk <ul style="list-style-type: none"> <li>know about current events and happenings from the community that have affected them</li> <li>know when to contribute ideas in class, group discussions and in meetings</li> <li>know when to listen and when to talk</li> <li>recognise that own personal experiences are worth talking about</li> <li>recognise when it is appropriate to offer one's own point of view in discussions and meetings</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>speak to peers, teacher and other adults such as parents or other teachers in the school on familiar topics from the community</li> <li>take part in role-play which requires them to adapt their speech to suit different audiences and purposes</li> <li>retell stories and events heard or told to whole class, small groups and peers</li> <li>tell stories of their own to peers</li> <li>listen to stories told or read to them by teacher and peers and respond to the characters and story</li> <li>develop listening skills through a variety of activities such as listening to class news and following instructions</li> </ul>	<ul style="list-style-type: none"> <li>present reports on issues and happenings in the community such as sports events and celebrations to class groups, small groups, peers and adults</li> <li>retell main points in stories told or read aloud to them</li> <li>take part in role-play and drama using body and face movements</li> <li>listen to teacher, another adult and peers telling or reading stories</li> <li>listen attentively and respond constructively to other points of view in group and class discussion</li> <li>take part by contributing ideas in small group discussions</li> <li>retell radio and television news to peers</li> <li>offer explanations or put forward complaints which include one or two reasons to support an argument</li> <li>prepare and present to class or small groups detailed account of a known topic</li> </ul>	<ul style="list-style-type: none"> <li>present information reports on places and things such as 'What is Haus Tambaran?' or 'What animals are seen at night?' and 'What animals are seen in the daytime?'</li> <li>present a strong point of view to peers in a group and offer some considered reasons or arguments</li> <li>role-play and dramatise to experiment with a variety of techniques such as body and face movements, tone and emphasis</li> <li>discuss with peers and in big groups events that take place in their communities</li> <li>initiate and maintain conversation with an unfamiliar audience</li> <li>show willingness to talk with an unfamiliar audience</li> <li>discuss ideas and interact with others willingly</li> <li>listen and respond to short presentations or arguments that offer alternative viewpoints on a familiar issue</li> </ul>

Strand: Speaking and Listening		Substrand: Production	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	No outcome at this grade	No outcome at this grade	<b>2.1.2</b> Respond to basic English instructions and messages
<b>Recommended knowledge</b>			<ul style="list-style-type: none"><li>understand simple English questions, commands and instructions</li></ul>
<b>Recommended skills and suggested activities</b>			<ul style="list-style-type: none"><li>try to speak in English</li><li>respond to basic English instructions and messages appropriately</li><li>use verbal and non-verbal communication such as responding to questions by using gestures, nodding or giving one-word or two-word responses</li></ul>

Strand: Speaking and Listening		Substrand: Skills and strategies	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<p><b>P.1.3</b> Use basic requirements of speaking and listening</p>	<p><b>1.1.3</b> Apply speaking and listening skills in the classroom and community</p>	<p><b>2.1.3</b> Use speaking and listening skills in a range of roles</p>
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>• recognise gestures used in the local community and how to respond to them</li> <li>• use suitable words and ways of describing things such as objects, toys and pets</li> <li>• know appropriate words that describe what they have seen and what they have done</li> <li>• know how to ask questions and how to reply to questions</li> <li>• know how to make requests and how to respond to them</li> <li>• know that a change of pitch can affect the meaning of words</li> <li>• be aware of language structures in own vernacular</li> <li>• recognise words with similar beginnings and endings such as Tok Pisin 'mun' and English 'man'</li> <li>• recognise words with similar beginnings but different endings such as 'mumu' and 'mama'</li> </ul>	<ul style="list-style-type: none"> <li>• know different ways of describing objects, events and ideas</li> <li>• know appropriate ways of talking to a group of people such as peers, using materials to assist understanding</li> <li>• know that information and stories are told in sequence</li> <li>• demonstrate how to respond to questions appropriately</li> <li>• recognise how to rephrase sentences to make meaning easily understood</li> <li>• understand that there are many ways of using words to clarify meaning</li> <li>• understand and respond to non-verbal communication</li> <li>• be aware that people tell jokes and riddles</li> <li>• be aware that eye contact and hand movements can draw and hold listeners' attention</li> </ul>	<ul style="list-style-type: none"> <li>• know how to carry out simple interviews to gather specific information</li> <li>• understand the importance of rehearsing items before presenting them to the audience</li> <li>• understand the purpose of eye contact, emphasis, timing, tone of voice, gesture and volume in speech</li> <li>• know how to direct and control discussions during class meetings or small group meetings</li> <li>• show willingness to speak to peers, teacher and other adults</li> <li>• understand the role of emphasis and pause in speaking</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>• use a variety of gestures that are commonly used in the community</li> <li>• ask and answer questions such as who, what, where, when, why and how about different topics</li> <li>• identify beginning and ending sounds in words</li> <li>• use sufficient words to enable messages to be interpreted by others</li> </ul>	<ul style="list-style-type: none"> <li>• select appropriate aids and support material to help understanding when talking to the class</li> <li>• ask and answer questions such as who, what, where, when, why and how about different topics</li> <li>• rephrase things in their own words</li> <li>• explain the meaning of some words</li> <li>• make changes to existing texts</li> <li>• work out main points in familiar texts</li> <li>• have control over their voices when speaking</li> <li>• explore the effect of changed intonation on the meaning of phrases and sentences</li> </ul>	<ul style="list-style-type: none"> <li>• ask and answer questions such as who, what, where, when, why, how and what if about different topics</li> <li>• prepare a set of questions for an interview seeking information from community members about an issue or topic</li> <li>• rehearse and tell a story to peers and students in other grades using strategies that maintain listeners' attention</li> <li>• contribute to decision making regarding class rules</li> <li>• accept the views of other people and express their own relevant ideas and reasons</li> <li>• participate in discussions intended to solve real or imaginary problems</li> <li>• ask questions to clarify issues</li> <li>• ask for help from others to solve problems</li> <li>• initiate activities</li> <li>• prepare and present oral reports on experiments, books read and personal experiences</li> </ul>

Strand: Speaking and Listening		Substrand: Skills and strategies	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	No outcome at this grade	No outcome at this grade	<b>2.1.4</b> Compare vernacular alphabet sounds with English alphabet sounds
<b>Recommended knowledge</b>			<ul style="list-style-type: none"><li>• be aware that some English alphabet sounds are different from vernacular alphabet sounds</li><li>• know some basic English rhymes, songs and finger plays</li></ul>
<b>Recommended skills and suggested activities</b>			<ul style="list-style-type: none"><li>• repeat English letter sounds</li><li>• follow and give basic English instructions</li></ul>

Strand: Speaking and listening		Substrand: Context and text	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.1.5</b> Identify different oral contexts and situations	<b>1.1.5</b> Adapt spoken vernacular to suit different day-to-day situations	<b>2.1.5</b> Use a variety of oral texts spontaneously and appropriately
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know that people use language in different ways in school such as at assembly, a parents' meeting or classroom discussions</li> <li>understand the difference between a question and a statement</li> <li>understand that people use oral communication for different purposes such as role-play and drama, guest speakers, group discussions and community activities</li> </ul>	<ul style="list-style-type: none"> <li>know how to adapt messages from friends to suit a different audience</li> <li>recognise different ways of using spoken language to communicate face to face, to a crowd, on the radio and by phone</li> <li>realise that different interpretations of oral messages are possible</li> <li>know how to greet different people differently for example, greeting a teacher, community elder, pastor and peers</li> <li>know how spoken language is used differently in a variety of situations such as the playground, home, classroom, the marketplace and in church services</li> </ul>	<ul style="list-style-type: none"> <li>know that role-play can be used to create or show real or imagined situations and characters</li> <li>use various kinds of language, body gestures and facial expressions to help listeners' understanding</li> <li>know that gestures and body language are appropriate in some contexts and not in others</li> <li>realise that body language can have an effect on others</li> <li>understand the difference between informal and formal language such as language used in the playground and at school assembly</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>talk to teacher, peers and whole class about topics of personal interest and school-related topics</li> <li>present information to peers using pictures, drawings and models</li> <li>show a willingness to share and talk about stories and other general discussions</li> </ul>	<ul style="list-style-type: none"> <li>identify purpose for listening such as listening for pleasure, to plan action or follow directions</li> <li>greet other teachers appropriately and convey messages to them</li> <li>compare different ways of using spoken language</li> </ul>	<ul style="list-style-type: none"> <li>select and use different types of oral texts for different purposes and explain why they used that type of language</li> <li>use role-play to illustrate formal and informal settings such as talking with peers and friends and listening to a community member give a talk</li> </ul>

Strand: Speaking and listening		Substrand: Context and text	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	No outcome at this grade	No outcome at this grade	<b>2.1.6</b> Say English words and phrases in context to suit the situation
<b>Recommended knowledge</b>			<ul style="list-style-type: none"> <li>• know when to use simple English greetings such as 'good morning', 'good afternoon', 'good night', 'hello' and 'goodbye'</li> <li>• know English names of the days of the week</li> <li>• know that numbers such as one, two, three, four, five are international numbers</li> <li>• know English names of common food such as pawpaw, banana, pumpkin, sugar and biscuits</li> <li>• know the names of colours</li> <li>• know names of common shapes such as square, circle and triangle</li> </ul>
<b>Recommended skills and suggested activities</b>			<ul style="list-style-type: none"> <li>• use a variety of greetings, and farewells</li> </ul>

Strand: Reading		Substrand: Production	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.2.1</b> Read and understand short predictable texts	<b>1.2.1</b> Read and respond to a range of texts	<b>2.2.1</b> Read independently using own knowledge and experiences
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>be aware that pictures and print communicate messages</li> <li>understand simple stories which are read aloud</li> <li>be aware that the cover of a book usually indicates what the book is about</li> <li>understand short instructional texts that show how to do or make something</li> </ul>	<ul style="list-style-type: none"> <li>recognise and interpret print such as on signs, posters, notices and advertisements in the environment</li> <li>be aware that writing is language with meaning that can be read aloud</li> <li>understand that texts are written by people and represent real and imaginary experiences</li> </ul>	<ul style="list-style-type: none"> <li>be aware that signs and notices seen in the community give messages to the reader</li> <li>begin to read different types of texts:               <ul style="list-style-type: none"> <li>– narratives such as myths and stories</li> <li>– procedures such as recipes and instructions</li> <li>– recounts such as retelling of personal experiences</li> <li>– reports such as simple science or community reports</li> </ul> </li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>join in shared-reading activities such as read along with the teacher and peers from big books, discuss the pictures, retell the story and change the names of characters</li> <li>tell stories about pictures on different topics</li> <li>point out details in pictures that help reading and understanding</li> <li>recognise that there is a link between the words on the page and what is read aloud</li> <li>differentiate print from drawing</li> <li>name favourite characters and talk about them to peers</li> <li>request favourite stories to be read</li> <li>begin to read print and not only pictures</li> </ul>	<ul style="list-style-type: none"> <li>share impressions about different texts with peers and the teacher</li> <li>describe reactions to texts with peers</li> <li>read a variety of information texts</li> <li>read aloud to teacher and peers</li> <li>read own written texts to peers</li> <li>read labels, charts, big books and displays in the classroom and environment</li> <li>retell information gained from texts</li> <li>give reasons why things are happening in stories</li> <li>give reasons for feelings shown in pictures, drawings and photographs</li> </ul>	<ul style="list-style-type: none"> <li>read rules and instructions such as school rules and interpret them for others to understand</li> <li>make connections between own knowledge and experience and information in the text</li> <li>read descriptions of familiar people and places</li> <li>make predictions and express opinions about characters and their actions, qualities and characteristics and describe how these things relate to their own experiences and behaviour</li> </ul>

Strand: Reading		Substrand: Skills and strategies	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<b>P.2.2</b> Develop strategies to read and understand short predictable texts	<b>1.2.2</b> Use a range of strategies to understand print and picture texts	<b>2.2.2</b> Select and apply a variety of strategies to interpret print and picture texts
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>• show awareness that pictures help us to understand texts</li> <li>• understand that pages of a story are in order</li> <li>• understand that reading is from left to right and from top to bottom</li> <li>• know that a story has a beginning and an end</li> <li>• know that letters stand for sounds, words are made up of letters and sentences are made up of words</li> <li>• know that words are separated by spaces</li> <li>• show understanding that print is in chunks: words and sentences and that they have meanings</li> <li>• be aware that readers gain information from print materials</li> </ul>	<ul style="list-style-type: none"> <li>• understand that events and pictures in stories are organised in sequence</li> <li>• know that a book has different parts such as the cover page, title page and table of contents</li> <li>• know that the person who writes the book is called the author and the person who does the drawings is the illustrator</li> <li>• understand that there are books for entertainment such as story or picture books and magazines</li> <li>• understand that there are information texts such as newspapers and other non-fiction books</li> <li>• know that punctuation such as commas and full stops are an aid to reading and understanding</li> <li>• be aware that there are direct and hidden messages in texts</li> <li>• know that they can use picture clues, letter-sound clues and other context clues to help reading and understanding</li> </ul>	<ul style="list-style-type: none"> <li>• understand that stories, instructions in books and information texts have main ideas and messages for readers</li> <li>• be aware that making guesses or predictions about things read in stories makes reading fun and interesting</li> <li>• see how events in stories relate to each other</li> <li>• locate specific information from texts</li> <li>• understand the purposes for reading such as for enjoyment or to find something out or to follow instructions</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>• use pictures to predict and tell stories in their own words</li> <li>• turn book pages from left to right</li> <li>• use context clues to predict meaning in written texts</li> <li>• demonstrate reading behaviour such as holding books, turning pages, looking at pictures and pointing to words</li> <li>• use picture clues to work out the main idea in texts</li> <li>• identify capital letters, full stops and question marks in texts</li> <li>• try to self-correct when reading by pausing and repeating words or phrases to be sure that the reading makes sense</li> </ul>	<ul style="list-style-type: none"> <li>• predict what a text will be about by using the title of the text, illustrations and background information</li> <li>• recognise words they have previously read</li> <li>• talk about beginning and ending of stories</li> <li>• talk about words and phrases that describe characters in texts</li> <li>• talk about words and phrases that tell when, where and why</li> <li>• compare characters and situations from books with their own experiences</li> </ul>	<ul style="list-style-type: none"> <li>• use headings and subheadings to locate information in instructional and information texts</li> <li>• interpret an author's or character's intentions in stories and justify them</li> <li>• read silently</li> <li>• respond with appropriate tone of voice, punctuation marks and direct speech when reading aloud</li> <li>• apply specific purposes such as reading carefully when following instructions, reading silently and rehearsing reading before reading to an audience</li> <li>• talk about characters from books, their actions and qualities</li> </ul>

Strand: <b>Reading</b>		Substrand: <b>Context and text</b>	
<b>Grades</b>	<b>Elementary Prep</b>	<b>Elementary 1</b>	<b>Elementary 2</b>
<b>Learning outcomes</b>	<b>P.2.3</b> Recognise that writing and pictures are used to convey meaning for different purposes	<b>1.2.3</b> Identify ways in which writing and pictures are structured for different purposes	<b>2.2.3</b> Interpret how texts are used for different social and cultural purposes
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>• recognise the letters of the alphabet and show awareness of the letter-sound relationship</li> <li>• recognise that a series of words make up a text</li> </ul>	<ul style="list-style-type: none"> <li>• recognise that information can be presented in different ways such as pictures, photographs, posters, charts, graphs, pamphlets, diagrams and picture books according to the purpose and audience</li> </ul>	<ul style="list-style-type: none"> <li>• recognise that texts are written for particular purposes and for particular audiences</li> <li>• show understanding of purposes for reading such as a recipe book, song book or story book</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>• request information books and other reading materials to be read for particular purposes such as finding out about insects, animals, birds and rivers</li> <li>• identify and use different kinds of reading materials such as posters, pictures, labels and letters</li> <li>• use picture clues to predict texts and make connections between the illustrations and the words</li> </ul>	<ul style="list-style-type: none"> <li>• work out ways in which meaning is expressed through pictures</li> <li>• talk about the purposes of different texts such as to provide information, to give instructions or to tell a story</li> <li>• compare texts in terms of audience such as children's story books, the Bible and hymn books</li> <li>• make a selection of different types of texts such as texts that tell stories, information texts and texts that tell how to make or do something</li> </ul>	<ul style="list-style-type: none"> <li>• read a wide range of texts</li> <li>• link different types of reading materials to different topics</li> <li>• talk about who the text is written for</li> <li>• interpret and give opinions about written texts such as favourite stories and their effect on audience</li> <li>• identify different parts of a book such as the front cover, the title page, the content page, the index and the back cover and talk about their use</li> <li>• predict the topic of a text based on the title and illustrations</li> <li>• use advertisements and posters to give and gain information</li> </ul>

Strand: Writing		Substrand: Production	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<p><b>P.3.1</b> Use pictures and writing to represent ideas and information</p>	<p><b>1.3.1</b> Write texts for a variety of purposes</p>	<p><b>2.3.1</b> Plan, write, edit and publish fiction and information texts</p>
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>differentiate between writing and drawing</li> <li>know that pictures and print communicate messages</li> <li>know that the language they speak can be written down</li> <li>know that there are different kinds of writing such as birthday or Christmas cards, stories, letters and texts that give information</li> </ul>	<ul style="list-style-type: none"> <li>begin to recognise features of different types of texts such as narratives: stories, instructions on how to make or do something: procedures, letters and simple factual sentences: reports</li> <li>know that written texts have sequence and order</li> <li>understand that written messages can be rehearsed orally before writing them down</li> </ul>	<ul style="list-style-type: none"> <li>show evidence of careful revision, editing and proofreading in final drafts</li> <li>understand the purpose of note-taking and planning as part of preparation before a written activity</li> <li>understand the power of words such as expressive words and phrases to create excitement in writing and use them</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>readily use a range of writing materials such as small chalkboards, chalk, crayons, charcoal and paper</li> <li>engage in 'writing-like' behaviour by using pictures and symbols to communicate messages</li> <li>produce written symbols with the intention of conveying an idea or message</li> <li>dictate text for the teacher, older students or other adults to write</li> <li>contribute to group discussions that lead to writing of texts</li> <li>create a series of pictures that tell a story</li> <li>begin to write simple sentences, letters, cards and stories</li> </ul>	<ul style="list-style-type: none"> <li>read own writing to peers and respond to any questions they may ask</li> <li>write about familiar topics from the community</li> <li>try different kinds of writing with the teacher as a whole class, with a partner and by themselves</li> <li>use writing to record simple messages for peers, other teachers and the community</li> <li>write simple stories and simple information texts for big books as a class</li> <li>work with members of the community to make big books and illustrate them</li> </ul>	<ul style="list-style-type: none"> <li>keep a collection of different types of writing</li> <li>keep a journal and write such things as personal experiences, helpful or moving ideas and other items of interest</li> <li>use other texts as models to gain an understanding of how the text is organised</li> <li>write information reports such as weekend games and group project reports</li> <li>plan writing with peers by taking notes, making lists and drawing diagrams</li> <li>use sources such as community members, local newspaper and parents to research information before writing</li> <li>publish a range of texts for other classes in the school and for the community</li> </ul>

Strand: Writing		Substrand: Skills and strategies	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<p><b>P.3.2</b> Recognise strategies that help them to write</p>	<p><b>1.3.2</b> Use a range of strategies to write texts</p>	<p><b>2.3.2</b> Select and apply a variety of strategies to plan, review and edit texts</p>
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>know that each word in a sentence is separated by a space</li> <li>recognise that letter shapes in words are always written in the same way</li> <li>know that letters make sounds in words</li> <li>understand vernacular letters, for example, 'a' as in akis, anis and mama or 'u' as in tumbuna and bungim by shape and name</li> <li>know that writing goes from left to right and top to bottom</li> <li>know that letters make up words and words and phrases make up sentences</li> <li>know how to handle writing materials such as crayons, markers, charcoal and small chalkboards and paper</li> <li>recognise differences and similarities in basic letter strokes and small and capital letters in their vernacular alphabet</li> </ul>	<ul style="list-style-type: none"> <li>know that each word has one correct spelling</li> <li>recognise misspelt words in own writing</li> <li>learn how to self-edit and self-correct own written work</li> <li>know sounds of the letters in the vernacular alphabet</li> <li>recognise letter-sound relationships and how to use these in spelling words</li> <li>know how to change letter sounds in known words to make new words</li> <li>know how to write small and capital letters in script print</li> </ul>	<ul style="list-style-type: none"> <li>know about various aspects of the writing process such as planning and preparation, drafting, editing, proofreading and publishing</li> <li>know how to separate sounds and syllables in words</li> <li>know when to use punctuation marks such as capital letters, full stops and question marks</li> <li>know how to spell most vernacular words correctly</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>apply left-to-right direction in written activities</li> <li>identify and begin to use capital and small letters</li> <li>form letters correctly using 'script print'</li> <li>create messages using known letters</li> <li>use the letter sounds of their vernacular alphabets to help them spell words</li> <li>use basic letter strokes to write the letters in the vernacular alphabet</li> </ul>	<ul style="list-style-type: none"> <li>form most letters of the alphabet correctly</li> <li>make a vernacular dictionary</li> <li>make signs and posters for real purposes such as advertising community events or giving directions</li> <li>locate words needed for writing using big books or other known texts and resources</li> <li>self-correct own written work by re-reading</li> <li>write familiar words without copying them</li> </ul>	<ul style="list-style-type: none"> <li>use lists, drawings and notes to plan their writing</li> <li>edit own and peers' written work by carefully proofreading the drafts to add, delete and change information</li> <li>write all the letters of their vernacular alphabets</li> <li>develop class and individual alphabet books and vernacular dictionary</li> <li>spell a large number of words correctly</li> </ul>

Strand: Writing		Substrand: Context and text	
Grades	Elementary Prep	Elementary 1	Elementary 2
<b>Learning outcomes</b>	<p><b>P.3.3</b> Recognise that pictures and print are used for different purposes</p>	<p><b>1.3.3</b> Identify some of the purposes of writing</p>	<p><b>2.3.3</b> Identify ways in which print and pictures differ according to their purpose and audience</p>
<b>Recommended knowledge</b>	<ul style="list-style-type: none"> <li>• recognise a variety of ways to use pictures and writing in real activities</li> <li>• identify familiar written texts such as signs, advertisements and labels that they see around them</li> <li>• start to understand how pictures are used differently in different texts according to the purpose and audience</li> <li>• understand reasons why people write</li> </ul>	<ul style="list-style-type: none"> <li>• understand that written texts such as notices and posters at marketplaces, shops, health centres and church buildings have messages that help us to gain information</li> <li>• recognise different written vernacular texts that exist in their community</li> <li>• understand the advantages of writing and recording information</li> <li>• recognise types of writing that occur within their families</li> </ul>	<ul style="list-style-type: none"> <li>• understand the purposes of different types of writing used in the community, for example, letter-writing, recipes, hymns, songs, notices and posters</li> <li>• know how familiar texts such as stories, letters, lists and recipes are structured</li> <li>• identify different words in texts such as action words, describing words and words that name things</li> </ul>
<b>Recommended skills and suggested activities</b>	<ul style="list-style-type: none"> <li>• create a variety of texts such as simple poems, labels, sentences, letters and cards with the teacher and peers for specific audiences</li> <li>• explore the purposes of a variety of written texts for example, labels in the classroom, notices at the marketplace, church halls and trade store signs and pictures used in the community</li> </ul>	<ul style="list-style-type: none"> <li>• innovate with familiar texts by making changes to such things as the names of main characters, the setting of the text and create different endings to suit different purposes and audiences</li> <li>• identify different types of texts used, such as letters, notices and advertisements and describe their purposes in the community</li> <li>• explore how written materials such as books, posters, signs and newspapers give information to people</li> <li>• work out some of the differences between stories and other forms of writing</li> <li>• identify different types of written communication such as letters, notices, advertisements and how they can be sent or received</li> </ul>	<ul style="list-style-type: none"> <li>• use language appropriately to suit different audiences such as peers, parents and school assembly</li> <li>• select own topics and write for a range of purposes</li> <li>• share own writing with peers</li> <li>• proofread, edit, revise and rewrite own work and that of others to make sure the meaning is clear and it is suitable for the audience</li> <li>• discuss the differences between texts such as narratives and information texts and their uses</li> </ul>

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# Glossary

## Culture and Community

<b>Anecdotal notes</b>	short notes, journals or diaries describing the students' learning performance in class
<b>Captions</b>	words printed above or below a picture, newspaper article or diagram to say what the picture or article is about or to give more information
<b>Content</b>	ideas or knowledge, skills and attitudes put together to develop a learning area for each grade for each subject
<b>Context</b>	everything surrounding the learner or the conditions in which learning takes place
<b>Coordinated learning</b>	the way in which body parts are controlled to move together to perform movement such as kicking, throwing or catching a ball
<b>Criteria</b>	standard principle based on the outcomes on which teachers base their decisions of the students' learning performance
<b>Disabilities</b>	unable to use parts of the body or mind properly. This makes it hard for the person to do things on their own. The person needs family members for help and support
<b>Dodging</b>	a way of moving suddenly aside to avoid an obstacle such as moving quickly away from a partner in a game
<b>Ethics</b>	a group of organised beliefs, morals, rules or principles of behaviour that a person or group of people lives by
<b>Explicit</b>	clear and fully detailed information on a topic, a word or a situation
<b>Fair play</b>	play a game according to rules so that everyone enjoys the game and has an understanding of having one winner and one loser
<b>Foster</b>	helping, promoting or encouraging an idea and developing it to suit the needs in a situation
<b>Holistic learning</b>	a way students learn about all aspects of happenings in the environment, such as deaths, volcano eruption, flooding river in ways that are meaningful to the learner
<b>Introduced games</b>	games such as 'Dog and the Bone' and 'Fill the Bucket' brought into the community by missionaries or others for young children from four to ten years old
<b>Juggling</b>	a game played by keeping several objects in the air at the same time by throwing them up quickly and catching them
<b>Leisure</b>	a time when someone is free from work or duties of any kind
<b>Morals</b>	principles of knowing right from wrong to make decisions so that actions reflect positive attitudes in everyday living

**Movement patterns** movements such as walk, run, jump, skip are performed repeatedly in a pattern

## **Cultural Mathematics**

<b>Capacity</b>	the quantity or amount a container can hold and contain
<b>Chance</b>	is the way people predict or make guesses that an event will, may or will never happen
<b>Currency</b>	money that is used by the country to buy and sell. For example, in Papua New Guinea, Kina and toea is used to buy and sell goods at the markets and stores
<b>Digit</b>	any single number between zero and nine. For example, number ten has two digits
<b>Dimensional shapes</b>	shapes that have height and length: two dimensions or height, length, width: three dimensions
<b>Estimate</b>	make guesses, predictions and calculations with approximate judgement to solve problems
<b>Geometric shapes</b>	patterns of shapes such as oblongs, triangles and squares formed by joining straight lines
<b>Geometry</b>	study of angles and shapes that are formed by relating to lines, surfaces and solids such as triangles, cubes and circles
<b>Informal units</b>	non-standard units such as arm spans, paces, sticks and ropes used for measuring in the daily activities of different communities. For example, we may use paces to measure the length of a family house
<b>Interpret</b>	to work out and say in their own words, the meaning and understanding of pictures, symbols or words
<b>Investigate</b>	a way of collecting or gathering information that describes or gives clear meaning and better understanding
<b>Irregular shapes</b>	shapes that have uneven or different sized parts
<b>Mathematical concepts</b>	mathematical concepts are general ideas such as number, measurement, shapes, pattern and chance
<b>Mathematical language</b>	words that describe ideas, knowledge and skills relating to understanding mathematics in the vernacular
<b>Pattern</b>	a repeated set of lines, shapes, numbers or colours arranged in order to form a design on a surface
<b>Representation</b>	a way of showing a value or of taking the place of a number or an object
<b>Similarities</b>	general likenesses of two objects
<b>Symbols</b>	signs or marks with special meaning, such as operational signs $+$ , $-$ , $\times$ , $\div$ , $=$ , traffic lights, cultural marks

<b>Symmetrical</b>	having both sides or halves of an object or shape exactly the same
<b>Uncertainty</b>	having doubts, being not sure of or undecided about events that might happen or occur
<b>Visual appearance</b>	the appearance of an object or image of known shape to the eye
<b>Without trading</b>	without 'borrowing' when calculating

## Language

<b>Context</b>	a situation in which a spoken or a written communication occurs. When students use oral or written communication they learn to select and present the content of their communication in the form that is appropriate for the audience or context and the situation
<b>Conventional</b>	refers to the standard way of writing words in a language. In the early stage when students are learning to write they usually use made-up spelling words then gradually they learn to spell using standard or conventional spelling
<b>Gestures</b>	such as body gestures, facial expression, eye contact and hand movements help understanding and meaning in spoken communication
<b>Initiate</b>	to start discussions in group work without being told to do so
<b>Innovate</b>	giving new meanings to the main characters of text, changing the setting of the text and giving the text a different ending
<b>Integrate</b>	is to use a topic or a group of related ideas to link learning from one study area to the next
<b>Interpret</b>	make sense of what students 'hear, see and read' using a variety of forms such as pictures, drawings and written texts. They develop skills to help them see how oral and written texts are used for different purposes
<b>Literate</b>	describes a person who is able to read and write. We want our students in Elementary to be able to read and write in the language that is used in the community
<b>Modify</b>	taking an idea and making changes to it to make it suit the situation in the classroom
<b>Multicultural society</b>	a society where people with different languages, cultures and attitudes live and work together and yet maintain their ways of life as much as possible
<b>Recite</b>	to say aloud something that is learned from memory such as saying aloud poems and rhymes
<b>Rehearse</b>	to allow students time to practise things such as role play, a speech or a song before presenting them to the audience
<b>Rephrase</b>	a statement or idea is said in another way, usually to make clearer the meaning of communication

<b>Spontaneous</b>	something done on the spot without any preparation when the need arises
<b>Strategy</b>	a method or way that is used to help others understand and learn new ideas
<b>Text</b>	a spoken or written piece of information that is presented to specific group of people for a particular purpose
<b>Visual</b>	information on pictures, charts, posters, diagrams, photographs, films and television

## **Appendix: Time allocations for Elementary subjects**

In Elementary, the subjects to be taught and their time allocations per week are:

Culture and Community	660 minutes
Cultural Mathematics	180 minutes
Language	360 minutes

All subjects must be allocated the required number of minutes per week. Each subject is equally important for the goal of Integral Human Development.