Professional Development Strand
Unit 4: Curriculum Studies

Module 4.3 Programming

Student Support Material
Acknowledgements

Materials written and compiled by Lynne Hill and Kautil Mileng.

Incorporating suggestions from the Professional Development staff of

- Balob Primary Teachers College
- Madang Primary Teachers College
- Kabaleo Primary Teachers College
- St Benedicts Primary Teachers College
- Gaulim Primary Teachers College
- Dauli Primary Teachers College
- Papua New Guinea Education Institute

Layout and diagrams supported by Nick Lauer.

Date: 22 October 2002
## Unit outline

<table>
<thead>
<tr>
<th>Unit</th>
<th>#</th>
<th>Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 4</td>
<td>4.1</td>
<td>The National Curriculum</td>
</tr>
<tr>
<td>Curriculum Studies</td>
<td>4.2</td>
<td>Timetabling</td>
</tr>
<tr>
<td></td>
<td>4.3</td>
<td>Programming</td>
</tr>
</tbody>
</table>

## Icons

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>📖</td>
<td>Read or Research</td>
<td></td>
</tr>
<tr>
<td>📝</td>
<td>Write or Summarise</td>
<td></td>
</tr>
<tr>
<td>🌟</td>
<td>Activity or Discussion</td>
<td></td>
</tr>
</tbody>
</table>
Table of contents

Module 4.3: Programming ................................................................. 1
  Rationale .......................................................................................... 1
  Objectives ....................................................................................... 1
  How to use this material ................................................................. 1
  Assessment ...................................................................................... 2
  References ....................................................................................... 2

Planning and Preparing for Teaching .............................................. 3
  What does planning require? .......................................................... 3
  What is a Program? ........................................................................ 4
  Principles of programming and considerations .......................... 5
  Programming types ......................................................................... 5
  Program requirements ..................................................................... 6
  Thematic and integrated approaches to programming ............... 6
    Identification of themes ............................................................... 7
    1. Start with the syllabus documents ......................................... 8
    2. Start with brainstorming ......................................................... 10
    The next step: term and weekly programs ............................... 11
  Planning a thematic unit outline .................................................. 12
    Planning the content .................................................................... 13
    Planning of learning experiences and teaching strategies ....... 13
  Moving to the weekly plan ......................................................... 18
  Daily planning ............................................................................... 18
  Outcomes based curriculum programming .................................. 20
  Grades and stages in outcomes based curriculum ..................... 21
  How do I plan using outcomes based curriculum? .................... 21
  Assessment ..................................................................................... 22
  Evaluating what has been taught ............................................... 22
  Summary ........................................................................................ 23

Glossary and Key Terms .................................................................. 24

Appendix 1: Examples of Programming and Planning ................. 25
Module 4.3: Programming

Rationale
This module is the final of three in a two-credit point unit of study. The modules previously studied in this unit are

- Module 4.1: The National Curriculum
- Module 4.2: Timetabling

The actual break up of topics and time allocation is flexible and is to be decided by the individual lecturer.

Objectives
By the end of this module you will be able to:

- explain the purpose of programs and the processes involved in programming
- demonstrate familiarity with considerations of programming.
- differentiate between types and formats of programs
- use syllabus documents to identify objectives, and incorporate these into programs
- plan a theme web and explain advantages of providing links between subjects
- demonstrate familiarity with outcomes based curriculum planning
- describe and plan for yearly, termly and weekly approaches
- consider the different formats and requirements of programs which may be required by your school.

How to use this material
Your lecturer will guide you through the materials during the lecture program. Sometimes, you may work directly from the book during the lectures. Sometimes, your lecturer may ask you to complete an activity or reading for homework. Your lecturer may include additional information and topics.

Major topics include:

- principles of programming and considerations
- programming types
- programming requirements
- thematic and integrated approaches to programming
- weekly and daily plans
- outcomes based curriculum programming
- assessment of programs
Assessment

Your lecturer will provide details of assessment requirements during the first week of lectures. These assessment tasks will provide the opportunity for you to show your understanding and in some cases, apply your knowledge of the theory to practical situations.

References

The student support materials contain all the readings necessary to complete the module. The readings have been adapted from the following texts:


Madang Teachers College; Professional Development Strand (2000). *Curriculum Studies Booklet.*


Professional Experience Unit, Faculty of Education (1998). *Planning for Pre-Service Primary Teachers.* Queensland University of Technology.
Planning and Preparing for Teaching


In Module 4.1, we looked at the role of curriculum in teaching and learning. The curriculum provides an overview, or blueprint for teaching and learning, usually over an extended period. A curriculum can be highly specific and prescriptive for teachers, but typically it provides only general principles and ideas.

The new curriculum for Papua New Guinea, as we examined in Module 4.1 is a framework or guide. Teachers are required to take that framework and turn it into a teaching program. This can be very challenging, when there is so much to consider and so many choices to be made by the teacher.

What does planning require?

Marsh, (2000) outlines a set of guidelines to consider when preparing for teaching.

- **Planning is largely a mental and verbal activity.** Teachers need to think through their priorities and make links between what they teach, why and how. Through this thinking, imagining and playing with ideas, planning occurs. It’s not just the formal document at the end.

- **Planning requires reconciling different priorities and goals.** There is no prescriptive answer to ‘what must I teach?’ Each teacher has to think about this, and prioritise what will be taught from a very broad curriculum. They need to make decisions based on official documents, school requirements, community needs and most importantly, student needs.

- **Planning requires critical reflection.** Teachers need to think carefully about the planning decisions they make both prior to and after they have given their lessons. It helps teachers to undertake informed action and provides a rationale for practice.

- **Planning requires risk taking.** Teachers must consider flexible approaches to learning. Sometimes they may choose easy planning, other times taking a risk with an innovative idea. Teachers faced with using new technologies can be scared and reluctant to try if they don’t feel confident with the subject themselves.
4.3 Activity 1

Imagine you are planning a holiday to another country. How would you go about this? What things would you think about? What choices and decisions would you need to make? What risks may you need to take?

What is a Program?


Most education systems throughout the world require teachers to develop programs of teaching (over a year or a term) and daily or weekly lesson plans.

“A program is the teacher’s creative representation/interpretation of a curriculum”.

(Marsh, 2000, p.79)

The program should follow the broad principles of the curriculum. The focus and combination of activities will represent each teacher’s judgements about what they consider important for their particular class.

Lesson plans are even more personal, in that the teacher creates learning activities for specific periods, usually half an hour, up to two hours, which enable students to demonstrate particular outcomes.

The main purpose of programming is to help you arrange the presentation of the course in an organised manner. This will help you to know what to teach and when to teach it.

There is no prescriptive national program for teachers to follow in the new reform curriculum. Instead, subject syllabus documents present a framework on which to plan and build teaching programs. Teachers are encouraged to develop their programs using the guidelines provided and according to the needs of their students.

Each teacher must prepare a program, which is prepared in advance and sighted by supervisors and inspectors.

Different provinces have different program formats, so the type of program you must keep will be dependent on where you are teaching.
**Principles of programming and considerations**

Before programming, it is important to take into consideration some of the factors or principles.

**Consider children’s needs**
- Be mindful of children’s experiences, cultural / religious / family background, interests
- Be aware of work done in previous grades

**Examine relevant curriculum documents, materials for the grade assigned**
- Have access to syllabuses, teachers guides and other curriculum documents and materials relevant to the grade you are assigned.
- Find out what materials or aids are already available for the subjects you will be teaching.

**Consider total teaching time on education calendar**
- It’s also important to check the education calendar for the current year and note down public holidays, term breaks, school weeks and special events such as Education week, National Book week and so on before programming.
- In Church-run schools, you may need to check the church calendar for agency holidays and note that down.

**Refer to timetable**
- You will need to refer to your timetable which you will have already prepared when programming lessons.

**Allow for revision and tests**
- When programming, allow time for revision and tests. Children tend to forget knowledge learnt if they do not revise what they have learnt from time to time. Assessment and testing helps provide feedback on the effectiveness of your teaching.

**Programming types**

The type of program a teacher develops is closely related to the type of curriculum framework being used.

In the past, *subject* based programs were developed according to the content of the subject syllabus. Each subject was programmed separately, with no integration between subjects. Subjects were fragmented into short periods of time, for example fifteen minutes for spelling, fifteen minutes for oral expression and fifteen minutes for written sentence. Teachers were required to stick to a very rigid timetable, where every teacher was teaching the same subject at the same time in every primary school. The content was very prescriptive and teachers...
didn’t have too many decisions to make about what to teach and when to teach. These decisions were already made for them by the curriculum developers.

Such a subject-based curriculum was found to be inflexible and unresponsive to the needs of individuals and those living in different contexts within the country.

The reform curriculum has introduced a new approach, which in turn, requires a new way of programming. The reform curriculum gives teachers a curriculum framework from which to develop their programs. Teachers make choices about what and how they will teach. The new curriculum encourages a thematic and integrated approach, where subjects are linked using themes. This type of programming is known as thematic or integrated programming. Teachers have been using objective based programs in the past, but from 2003 an outcome based approach will be introduced.

Thematic or integrated planning is the recommended method of programming for the reform curriculum.

**Program requirements**

Whatever type of programming you are undertaking, there are three stages to developing your class program:

1. Development of an overall yearly plan
2. Development of a more detailed term plan
3. Development of weekly and daily plans.

Two programming methods will be covered in this module;

- programming using a thematic, objectives based program for Lower Primary
- programming using an integrated, outcome-based program for Upper Primary

**Thematic and integrated approaches to programming**

*Adapted from Education Department, Papua New Guinea (1999) Programming Guide for Lower Primary.*

The thematic approach is an integrated way of teaching and learning which emphasises the common thinking skills, social skills, values and attitudes between subject areas. The process of learning enables the children to see that a body of knowledge is a unified whole that is acquired through elements of all subjects.

Programming using the thematic approach is the recommended way of organising learning in the Lower Primary. All subjects in the Lower Primary have a syllabus that outlines the course content. You will need to study the contents of each course and choose themes that you can organise into yearly, term and weekly plans and the daily lessons for each subject area.
Many teachers find it easy and useful to plan as many of their lessons as they can around a central theme. The theme may be used for a few days, a week, two weeks or more. The theme may be used in one or two subjects or in as many subjects as appropriate. It may be difficult to find themes in which you can teach every subject, so you must be careful not to force a subject into a theme. Use your syllabus documents to help you select themes that cover many subjects.

The thematic approach is recommended for the bridging years (Grades 3 –5) because themes have been appreciated as being valuable in teaching a new language at primary level. Themes provide a focus for students to participate in real and meaningful experiences. Themes help to reinforce vocabulary learned in one subject because the same and related vocabulary may be used in other subjects.

Thematic approaches are also recommended for multigrade classes. By looking through the syllabus documents, teachers can identify common themes across grade levels, and plan a common theme for the class, but use different objectives and activities for the various groups / grades in the same classroom. Teachers should not program for two or three different classes in the multigrade classroom, but plan one program which caters for the needs of all students in the class.

A thematic approach to programming shares many similarities with the subject based programs we looked at earlier in the module. A yearly, term, and weekly program still need to be developed, but the theme chosen forms the basis of the program and the subject activities are integrated, eg if the theme was my family, activities in all seven subject areas where possible would be based around some aspect of the family.

Identification of themes

The first task in beginning a thematic program is to identify common elements, topics and links between the different subject areas in the syllabus documents for your grade.

1. Collect all the Syllabus documents for your area (ie Lower Primary or Upper Primary)
2. Identify the main themes or units in the syllabus documents for your grade level (eg, Environmental Studies for Grade 4 has four main themes.
3. Make a list of all the major themes that you can see in the documents (Maths and English focuses are best added later)
4. Think of any other themes that are relevant to your community eg, special events, national days etc
5. Prioritise the themes according to the events of the year.
6. Work out your yearly plan.

There are a number of ways to go about identifying the themes you will use in your program. Two ways will be outlined here.
1. Start with the syllabus documents

An example of the steps for the development of a yearly plan using the Grade 4 syllabus documents is shown below.

1. The table below lists the units or topics found in three Grade 4 curriculum documents Can you see the possible links?

<table>
<thead>
<tr>
<th><strong>Community Living</strong></th>
<th>Different people in the Province</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>How People Organise Themselves</td>
</tr>
<tr>
<td></td>
<td>Ways We Do Things</td>
</tr>
<tr>
<td></td>
<td>People and Resources</td>
</tr>
<tr>
<td><strong>Environmental Studies</strong></td>
<td>Different Environments</td>
</tr>
<tr>
<td></td>
<td>Plants and Animals of PNG</td>
</tr>
<tr>
<td></td>
<td>The Environment of PNG</td>
</tr>
<tr>
<td></td>
<td>Living Resource of PNG</td>
</tr>
<tr>
<td></td>
<td>Non Living Resources of PNG</td>
</tr>
<tr>
<td><strong>Health Education</strong></td>
<td>Healthy Body and Mind</td>
</tr>
<tr>
<td></td>
<td>Healthy Family and Community</td>
</tr>
<tr>
<td></td>
<td>Healthy Food and Hygiene</td>
</tr>
<tr>
<td></td>
<td>Safety and First Aid</td>
</tr>
<tr>
<td></td>
<td>Things that Harm Us</td>
</tr>
<tr>
<td></td>
<td>Lifestyles</td>
</tr>
</tbody>
</table>

English and Maths focuses can be decided once the themes are in place. Arts and Crafts and Physical Education can also be developed around the theme.

2. Community or special event days. For example, World Environment Day, Independence, Easter etc. These could be included as part of another unit if they are relevant, or they could be a unit on their own.

3. From these main topics, think about the possible themes that could be developed.
These are not the only possibilities, just some examples. Choose themes that are meaningful and relevant to the community in which you teach.

4.1 Activity 2

Plan a program for a Grade 4 class using the topics or units identified in the previous table. List the units under the syllabus areas below, then think of a theme(s), which would link the topics together.

<table>
<thead>
<tr>
<th>Community Living</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Environmental Studies</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Health</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Theme(s)</th>
<th></th>
</tr>
</thead>
</table>
Next, add any special days or celebrations that may be included in your themes.

Now think of some themes that could include some of the units from your grid. Add them to the chart below.

2. Start with brainstorming

Another way you can end up with the same yearly thematic plan, is to brainstorm first, then use the syllabus documents to help identify units and objectives that can be taught under each of the chosen themes.

1. **Brainstorm possible themes.** This will require you to think about broader concepts than can be used to cover more than one subject.

2. **Think about community events and ceremonies,** eg. Bride price, funerals, gardening etc.

3. **Identify themes that are relevant to your community.**

4. **Prioritise the themes according to the events of the year and the needs of your community.**
5. **Check the syllabus documents to identify units and objectives that can be taught under each of the chosen themes.**

6. **Work out the yearly plan by arranging the themes into a four-term program.**

**Some considerations to make when developing themes**

- Sometimes teachers choose themes that they like to teach and students ‘do the same thing’ every year. If you are planning in this way, it is important to plan with other teachers. Some schools design whole school thematic plans to make sure themes are not repeated year after year.

- If you are teaching themes based on interest and community, you still need to ensure that you are covering the topics and units in the syllabus. There is a danger that if you do not look at the syllabus documents, some areas of the curriculum may be missed out completely.

**The next step: term and weekly programs**

Once you have your yearly overview, you then need to divide it up into terms and weeks. This is the same as the subject based plan, but your themes may go for a number of weeks. You need to decide how much time you wish to spend on the theme, and that will depend on what is included and what your objectives are. One week is too short to develop a theme, and whilst some teachers may have the same theme for the term, others may program two or three themes for a term.

Below is an example of how the yearly plan may be divided up into terms, and the number of weeks spent on each theme is shown.

<table>
<thead>
<tr>
<th>Week</th>
<th>TERM ONE</th>
<th>Week</th>
<th>TERM TWO</th>
<th>Week</th>
<th>TERM THREE</th>
<th>Week</th>
<th>TERM FOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Our School</td>
<td>1</td>
<td>My Environment</td>
<td>1</td>
<td>Ceremonies</td>
<td>1</td>
<td>Different Environments</td>
</tr>
<tr>
<td>2</td>
<td>Our Neighbours</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Our Neighbours</td>
<td>3</td>
<td></td>
<td>3</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The Village</td>
<td>4</td>
<td></td>
<td>4</td>
<td>Plants and Animals of PNG</td>
<td>4</td>
<td>Healthy Lifestyles</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>5</td>
<td></td>
<td>5</td>
<td>Our Province</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>6</td>
<td></td>
<td>6</td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>7</td>
<td></td>
<td>7</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>8</td>
<td></td>
<td>8</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>9</td>
<td></td>
<td>9</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>10</td>
<td></td>
<td>10</td>
<td></td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>
4.3 Activity 3

Using your yearly theme developed for Grade 4, try to plan a four-term program which will include the themes you wish to cover.

<table>
<thead>
<tr>
<th>Week</th>
<th>TERM ONE</th>
<th>Week</th>
<th>TERM TWO</th>
<th>Week</th>
<th>TERM THREE</th>
<th>Week</th>
<th>TERM FOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Planning a thematic unit outline

Adapted from QUT Faculty of Education (1998) Planning for Pre-Service Primary Teachers. QUT Bookshop Publication

Once your broad themes are decided, the next step is to develop the theme into a unit of work which will be taught for a number of weeks.

A thematic unit outline is a “brief, concise and relevant outline of the short term program to be undertaken by a particular group of students.” (Professional Experience Unit, Queensland University of Technology 1988, p30)

Unit outlines:

- assist teachers in the development of well thought out programs of learning for students
- ensure that planned learning programs are sequential
- cater for the changing needs and interests of students as they develop throughout the term, semester and year
- ensure continuity for students, and
- ensure professional accountability.
There are many ways of developing thematic unit outlines. Your lecturer will discuss the format that is required by your college for developing units of work. This module provides examples of ways units could be developed.

Planning the content

Units of work can be planned according to subjects, such as Maths, or English, but more often, content is drawn from across the range of subjects in the curriculum. A unit on Animals in the Sea could use content from Science, Environmental Studies, English, Community Living etc.

Teachers should think about content selection and organisation. The content of the unit should be organised to reflect the key concepts and the major ideas of the material to be learned. This structure can be presented as a unit outline. A unit of work can have a broad objective, outcome or understanding, and more specific objectives or outcomes for particular subjects within the unit. These objectives should be identified in the teacher’s planning at a number of levels; in the unit, term, and weekly program documentation.

Planning of learning experiences and teaching strategies

One way of organising the learning experiences and teaching strategies for a unit of work is to consider three general sequential stages of a unit; the orientation phase, the enhancing phase and the synthesising phase.

The orientation phase is setting the scene or mood for the learning experiences to come. The teacher tries to stimulate motivation by introducing pictures, objects, books, telling stories or asking questions to get the students thinking. An excursion is a good method of introducing a unit of work. The main purpose of this phase is to

- identify what they know about the topic
- identify what they want or need to know about the topic.

The enhancing phase assists students to find solutions to problems set up in the orientation phase eg collection of data, organisation of data, drawing conclusions, applying them to other situations, learning the skills to find the solutions.

The synthesising phase is where students demonstrate what they have learned. Students can show their learning through group or individual reports, charts, pictures plays, talks, booklets they have made and demonstrations to name a few. The purpose of this stage is the presentation of findings, organising research and reports and sharing learning with others.

The following table shows the three phases in an English/vernacular unit outline for a study of insects in a Grade 3 class. Maths and other subject areas would also need to be developed around this outline.
Unit Outline: **INSECTS**  
**Grade 3/4**  
**Duration 4 weeks**  
**Curriculum focus: Language / Environmental Studies**

**Objectives:** develop a greater knowledge of insects / compare the differences and similarities between insects/ plan for and write a description on Insects.

<table>
<thead>
<tr>
<th>Orienting Activities</th>
<th>Enhancing Activities</th>
<th>Synthesising Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>K, W, L on Insects</td>
<td>Modelling the structure of a description – identifying main information, characteristics, food, babies, habitat</td>
<td>Students write 2 – 3 descriptions of insects to make into a small booklet to share with another student</td>
</tr>
<tr>
<td>Books/pictures of insects</td>
<td>Modelling the difference between a story (fiction) and a description (non fiction)</td>
<td>- Student to choose insect</td>
</tr>
<tr>
<td>Matching animal names to pictures</td>
<td>Jointly construct a description on Insects</td>
<td>- Plan a description of insects</td>
</tr>
<tr>
<td>Word bank (in Vernacular / English of insect words</td>
<td>Deconstruct, (break down) the description into a number of steps</td>
<td>- Collect information</td>
</tr>
<tr>
<td>Stories about insects (traditional and modern)</td>
<td>Matching a description to an insect</td>
<td>- Write information in a few sentences</td>
</tr>
<tr>
<td>Big book about insects (teacher made, with an emphasis on using the genre of description)</td>
<td>Write a description in pairs on an insect (vernacular / English)</td>
<td>- Write first draft</td>
</tr>
<tr>
<td>(Vernacular and English to be developed by the teacher according to the needs of the class)</td>
<td>Read a book on insects (teacher made or from reader)</td>
<td>- Conference with peers/teachers</td>
</tr>
<tr>
<td></td>
<td>Identify difference between a story and a description</td>
<td>- Edit first draft</td>
</tr>
<tr>
<td></td>
<td>Give a verbal description of an insect</td>
<td>- Publish description</td>
</tr>
<tr>
<td></td>
<td>Draw the life cycle of an insect</td>
<td>- Present story in booklet</td>
</tr>
<tr>
<td></td>
<td>Write an description of an insect individually</td>
<td>- Read/ share book with another student</td>
</tr>
<tr>
<td></td>
<td>Illustrate your description</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Write an acrostic poem about your insect</td>
<td>(Students should display confidence in working in the vernacular and English activities developed as decided upon by the teacher</td>
</tr>
<tr>
<td></td>
<td>Draw insects for class display</td>
<td></td>
</tr>
</tbody>
</table>

The unit outline can be more detailed, including a weekly breakdown of activities, grouping and listing the strategies and skills. A detailed example is given, adapted from Murdoch, K., Hornsby, D (1997). These are ideas upon which unit planning can be adopted.
<table>
<thead>
<tr>
<th>Stage of Unit</th>
<th>Purpose</th>
<th>Resources, Preparation</th>
<th>Sequence of activities</th>
<th>Grouping</th>
<th>Strategies and skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuning in (Orientation phase) Weeks 1 and 2</td>
<td>To find out children's prior knowledge To establish interest To group and classify known forms of transport To raise questions for further investigation</td>
<td>Magazines, Paper, Scissors / glue, Cardboard for display</td>
<td>Brainstorm How do we move things from one place to the other? How do we travel from one place to another? Cut out pictures of things to do with transport from magazines, newspapers and group with a partner.</td>
<td>Whole class</td>
<td>Brainstorming Listening Recalling Classifying Grouping Working with a partner Discussing</td>
</tr>
<tr>
<td></td>
<td>Teacher made big book about transport, story about a canoe trip or a walk to the village. Blackboard, paper to draw different forms of transport. Story from reader selected</td>
<td></td>
<td>In 4's combine pictures and regroup Label groups and display Devise large classification chart for grade</td>
<td>Teacher selected pairs Mixed ability groups</td>
<td>Questioning Listening Sharing Interpreting Creating Reflecting Discussing Presenting Questioning Recording</td>
</tr>
<tr>
<td></td>
<td>Children organised into three groups. Read a story with some form of transport as a theme (eg travelling by canoe) Discuss forms of transport children have used. Visually represent one or more forms</td>
<td></td>
<td>List questions we have about transport. What do you want to know?</td>
<td>Individuals, then whole class</td>
<td></td>
</tr>
<tr>
<td>Stage of Unit</td>
<td>Purpose</td>
<td>Resources, Preparation</td>
<td>Sequence of activities</td>
<td>Grouping</td>
<td>Strategies and skills</td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
<td>------------------------</td>
<td>------------------------</td>
<td>----------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Finding Out (Enhancing Phase) Week 2</td>
<td>To help children gather information about various types of transport and how they are used To broaden children's understandings To provide a link between home and school experience</td>
<td>Plan a walk where some different forms of transport may be seen, (i.e. near the river, near a highway, around the village or town.)</td>
<td>Local walk to observe the different forms of transport used in the area. Over a week, children keep a simple log of the various journeys they make, and the type of transport used (i.e. walking, travelling in a PMV or car, canoe transport)</td>
<td>Whole Class</td>
<td>Observing Recording Interpreting</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Individual</td>
<td>Gathering and recording data Carrying out an independent task.</td>
</tr>
<tr>
<td>Sorting Out Week 2</td>
<td>To help children work with the data they have gathered in a range of ways</td>
<td>Previous work done on charts etc</td>
<td>Compare transport seen on the local walk with forms listed in the orienting activity. In groups, children choose one form of transport seen to role-play. Others must guess where they are going and how they were getting there.</td>
<td>Whole Class</td>
<td>Performing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Materials to make class book. Paper, blackboard</td>
<td>Create a class book about the walk, by completing a joint construction of the story. Teacher can write on the chalkboard or paper. Children can illustrate the book in groups. Vernacular / English text developed</td>
<td>Whole class Group and individual work</td>
<td>Matching visual and written text.</td>
</tr>
<tr>
<td></td>
<td>To process experience through art and technology</td>
<td>Collection of natural materials and scrap materials available.</td>
<td>Design a model to represent the local area around which the children walked. This could be made with materials collected in the playground and arranged on a table, piece of cardboard, outside with a stick in the dirt.</td>
<td>Whole class, then groups of three for construction</td>
<td>Designing, making, evaluating</td>
</tr>
<tr>
<td>Week 3</td>
<td>To process experience through mathematics</td>
<td>Information collected on forms of transport. Paper squares for pasting or fastening on to large chart.</td>
<td>Children sort and graph the information they wrote down about transport over the previous week. Combine results on a large class tally. Interpret: What is the most/least common form and use of transport in our area? Why? Write and display conclusions</td>
<td>Individuals Whole class Small groups Individual and whole class</td>
<td>Tallying Counting Graphing Interpreting Sharing</td>
</tr>
<tr>
<td>Stage of Unit</td>
<td>Purpose</td>
<td>Resources, Preparation</td>
<td>Sequence of activities</td>
<td>Grouping</td>
<td>Strategies and skills</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>------------------------</td>
<td>-----------------------</td>
<td>----------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Finding Out</td>
<td>To gather further information about the roles of people in the transport industry.</td>
<td>Arrange a visit to a transport centre, eg an airport, airstrip, wharf.</td>
<td>If possible arrange a trip to the airport or the wharf. Observe what happens at the airport, and other forms of transport (baggage handling, refuelling, etc) Develop a story map for the visit, Develop a vocabulary list of ‘airport’ words in vernacular and English</td>
<td>Whole class</td>
<td>Observing Recording Asking questions Listening</td>
</tr>
<tr>
<td>Sorting Out</td>
<td>Week 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making</td>
<td>To help revise original generalisations To synthesise activities and complete the unit on transport</td>
<td>Sentence strips Construction materials</td>
<td>In groups, write about what you have learnt about: Types of transport What transport is for People and transport Using available materials, design and make your own vehicle. What is the purpose of your vehicle? How will it work? Where does it travel? Land, sea, air? What people will you need to operate it?</td>
<td>Individually then groups of three Groups then whole class</td>
<td>Writing Generalising Writing full sentences Listing Justifying Designing Creating Cooperating</td>
</tr>
<tr>
<td>conclusions</td>
<td>Week 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Synthesising</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>phase)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Moving to the weekly plan

If you are using a unit outline planned in weeks, it will be easy to complete your weekly plans by adding Maths, English and other integrated activities that may cover a number of subject areas.

The weekly program is worked out by using your chosen themes and developing a theme plan. This can be done as a theme web, or on a weekly timetable.

The following is an example from the programming guide showing a weekly program in the form of a theme web.

![Weekly Program Diagram]

Your college will have particular requirements for weekly planning, and your lecturer will advise you on the required format. When planning during block teaching, you may be required to plan as the classroom teacher does, or you may have the opportunity to develop your own method of weekly and daily planning.

Daily planning

After you have done your weekly program (web or timetable), you can develop your daily plan using the information from your weekly theme. The daily program should show activities for each subject that will be taught in a day.
1. **Make up teaching objectives with examples of activities for each lesson of each subject, using the weekly topics.**

2. **Identify specific references and resources to enable you to teach the lessons well.**

3. **Write details for each lesson in blocks which match the timetable.**

4. **Include what the teacher and different groups will be doing during each period.**

5. **Write your daily plan in a way that you find most useful.**

There are many different ways that teachers may record their daily plans. Your lecturer will tell you how your college would like to complete these plans.

One way described in the Programming Guide for Lower Primary Teachers is using a web for daily programs, as well as weekly.

One example is given below.
4.3 Activity 4

Using the format given by your lecturer, write a daily plan for one day using the information from your weekly plan.

Outcomes based curriculum programming

Teachers in Papua New Guinea are familiar with using objectives as the basis for programming and planning. The new reform curriculum is now introducing an outcomes based curriculum, which will take into account student’s individual needs and teachers’ decisions about what is best to teach for the students in their classes.

What is an outcomes based curriculum and how is it different to an objectives based curriculum?

- An outcomes based curriculum has a focus on outputs. The focus is on what students have learnt rather than what systems and schools have provided, and what teachers have taught.
- Accountability is in terms of student outcomes rather than in terms of what is provided by way of curriculum, hours of instruction, buildings and equipment.
- Curriculum is designed to enable students to achieve outcomes which are explicitly and publicly described (in the syllabus documents)
- The outcomes are common across the country, but the learning experience and curriculum are not fixed. Outcomes are identified and the process (the way we deliver the curriculum) is differentiated according to the learner.
- Curriculum is designed down from where you want your students to end up. That is, start with outcomes (the destination) and then determine the curriculum (the routes to get there)

The following statement is taken from the National Curriculum Statement for Papua New Guinea, 2003.

The Papua New Guinea outcomes based curriculum identifies what students will demonstrate as a consequence of following the national syllabuses developed for Elementary to Grade 12. Each subject syllabus identifies a set of outcomes that students are expected to achieve at each grade. Each outcome is accompanied by a list of indicators that identify examples of the knowledge, skills, attitudes and values that students will need to demonstrate in order to achieve the learning outcome. Teachers will use the outcomes and indicators to write learning objectives when planning a program and lessons. These objectives will identify the learning steps to be completed in order to achieve the learning outcomes.
Grades and stages in outcomes based curriculum

Some outcomes based curriculum approaches are organised in grades. The new Papua New Guinea curriculum is an example of a grade based curriculum. Each subject syllabus identifies a set of outcomes that students are expected to achieve at each grade. An example of the key outcomes for the Reading strand in the Upper Primary Language syllabus document is reproduced below. Note the differences in the key outcomes across the grade levels.

<table>
<thead>
<tr>
<th>Strand: Reading</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>6.2.1 Read and respond to a range of texts about real and imaginary worlds</td>
<td>7.2.1 Read and respond to a wide range of more complex literary and factual texts</td>
<td>8.2.1 Read, reflect and respond critically to broad range of complex literary and factual texts</td>
</tr>
</tbody>
</table>

You will see that each outcome builds upon the one before. Remember that the outcome is what a student can do and demonstrate. If you are teaching in a multigrade class, or are programming for individual needs, you will need to look across the grades to identify an outcome which can be work towards and achieved. In reality, you may have Grade 7 students working towards Grade 6 outcomes.

Staged based outcomes curriculum is organised around achievement levels, which can be called levels or stages. The levels are not tied to particular grade levels, recognising that different students progress through different levels at different rates. One level may correlate with a three or four year age span. Teachers make informed decisions about placing students on a level appropriate to their development. When outcomes are achieved at that level, students work towards attaining outcomes in the next level.

How do I plan using outcomes based curriculum?

The methods of thematic and integrated planning are still applicable to use for this type of curriculum planning. Thematic and integrated approaches across the curriculum are still relevant, and development of yearly, term and weekly plans still necessary. The main difference is identifying the specific outcomes to be achieved, or worked towards by the students. These will come from the subject syllabus documents. Teachers then use these outcomes to work from to design learning objectives.

For example; Making a Living: Managing Resources strand

Grade 6: Output 6.1.1 Investigate the importance of land and water resources and apply appropriate ways of managing these to meet basic human needs.

This is the destination; what we want students to know and demonstrate. Teachers will plan objectives to assist the students on the path to reaching the outcome. Some objectives for this outcome may include identifying land and water resources in the area, investigating how people
in the area use farming, fishing, hunting and/or gardening. The kinds of things that students should be able to do, know and understand if they are achieving an outcome are called **indicators**. Achievement of indicators, through planned programs by teachers enables the teacher to determine if the student has achieved the key outcome/s. There may be many outcomes identified from across the curriculum when planning an integrated unit of work. Teachers will select the ones they feel to be the most important, and the ones which meet the learning needs of their particular students.

Support materials for outcomes based education will be developed and distributed during 2003 and 2004.

**Assessment**

Whether you are programming in a subject based format or a thematic based format, you will need to consider how you plan to assess the students’ learning.

Your assessment tasks should be included in your planning.

Consider how you will assess the students’ understanding of the objectives /learning outcomes. You can keep a record of what students know by using:

- checklists
- work samples with dates and comments
- teacher’s notes
- photos and comments

Assessment is continuous and we need to remember that:

- some objectives can be assessed during the topic or at the end of the topic
- you should try to plan assessment tasks which students can demonstrate if they have achieved the objective
- you may need to do other activities to reinforce the same objective before assessing it.

**Evaluating what has been taught**

These questions may help you to evaluate a unit of work and to identify what needs to happen in future units.

- Were all the objectives covered that you planned to teach? If not, which ones need to be planned for again in future units or themes?
- Did all the students achieve the objectives? If not, which ones need to be planned again in future units or themes?
- Did all students understand and cope with the learning activities? If not, which learning activities would be good to repeat, modify, eliminate?
- Was the unit /theme enjoyable?
**Summary**

Teachers are now curriculum decision makers. You make the decisions about your students’ learning needs and use the frameworks provided by the syllabus documents to develop your programs.

Make your teaching program relevant to the students you are teaching and the community to which they belong.
Glossary and Key Terms

Program
A teacher’s creative representation/interpretation of the curriculum.

Lesson Plans
Plans for learning activities which cover specific periods of time and enable students to demonstrate particular outcomes.

Subject based approaches
Planning is organised around subject areas and given periods of time as required by the Education Department guidelines.

Thematic based approaches
An integrated way of teaching and learning which emphasises the common thinking skills, social skills, values and attitudes between subject areas. The thematic approach deals with learning as a whole and in context.

Outcomes based curriculum
Identifies the knowledge, skills, attitudes and values that all students should achieve or demonstrate in a particular subject at a particular grade.

Syllabus documents
Guides or frameworks provided by the Education Department for each subject in the Lower and Upper Primary curriculum.

Bridging classes
Grade Three classes who are making the transition from Elementary, where vernacular is the language of instruction, to Primary school where English is introduced.

Theme web
A way of representing a theme/ unit of work based around a common context.

Concept map
General topics which will provide the context for the development of learning activities across the curriculum. Topics are developed from syllabus guidelines.
Appendix 1: Examples of Programming and Planning

You will see there are a number of ways to approach the task, and as a teacher, you will develop your own methods of managing and recording your planning.

The following pages include a number of examples developed by bridging teachers during a workshop in 1999. They are presented as submitted, and provide examples of the different ways teachers approach the planning process.

The first example shows a concept map for the theme of Independence, to be completed by a Grade 5 class.

The first part of the diagram shows the sub topics, which have come from brainstorming, the syllabus documents, or a combination of both.

Underneath are more specific focuses listed in six of the curriculum areas. There are no Health education activities shown. Perhaps the teacher is planning a separate unit for Health, or this topic doesn’t lend itself well to health activities.

Another example using a similar type of planning is based around the theme Crops, a unit for Grade 4 developed by the New Ireland Bridging teachers during their workshop.
The following theme based on Hunting was developed by Paul Samson of Boreboa PS, NCD.

1. A concept map was completed first.
2. A theme plan or web showing the subject areas, objectives and suggested assessment tasks was developed.

<table>
<thead>
<tr>
<th>Community Living</th>
<th>Environmental Studies</th>
<th>Arts and Crafts</th>
<th>English Language</th>
<th>Vernacular Language</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic:</strong> Costumes, Special Events</td>
<td><strong>Topic:</strong> Use of things in my environment</td>
<td><strong>Topic:</strong> Music &amp; Drama</td>
<td><strong>Topic:</strong> Speaking and Listening</td>
<td><strong>Topic:</strong> Speaking and Listening</td>
</tr>
<tr>
<td><strong>Sub Topic:</strong> Ceremonies, Festivals</td>
<td><strong>Sub Topic:</strong> How I use animals, how I use plants for hunting (magical charms), ways of preparing food</td>
<td><strong>Sub Topic:</strong> Attentive listening, Learning to Write</td>
<td><strong>Sub Topic:</strong> Attentive listening, Learning to Write</td>
<td><strong>Sub Topic:</strong> Attentive listening, Learning to Write</td>
</tr>
<tr>
<td><strong>Objective:</strong> The students will appreciate and respect tasks (hunting) different people do for special occasions, such as singing, feasts, and other ceremonies; have knowledge about types and ways of preparing food for special occasions.</td>
<td><strong>Objective:</strong> The students will compare and classify the different areas and different animals found in the local environment, (according to what they eat and their physical features).</td>
<td><strong>Objective:</strong> The students will dramatise hunting movements and skills - beat the rhythm and sing a hunting song.</td>
<td><strong>Objective:</strong> Listen to the teacher to understand the tasks and talents of a hunter.</td>
<td><strong>Objective:</strong> Listen to the teacher to understand the tasks and talents of a hunter.</td>
</tr>
<tr>
<td><strong>Assessment Task:</strong> To explain and describe how meat is processed or prepared for a ceremony. (This can be done after they record the things they do.)</td>
<td><strong>Assessment Task:</strong> To explain the skills of how to throw a spear, and reason why special hunting songs are sung (good luck).</td>
<td><strong>Assessment Task:</strong> Do - create simple hunting dialogues and use role play. Talk - about usage, pronunciation, grammar, spelling. Record - write dialogue on a chart to aid memory during role play.</td>
<td><strong>Assessment Task:</strong> Do - make role plays of hunting (Language).</td>
<td><strong>Assessment Task:</strong> Do - make role plays of hunting (Language).</td>
</tr>
<tr>
<td><strong>Hunting</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students to walk around school ground with pencil and paper, and record local land forms and special areas. Then in class classify different animals and where they live according to land forms and special places - and where to hunt each animal - demonstrate different ways of hunting each animal.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. The activities to be completed for the week were put on a weekly timetable.

### Timetable: Hunting

<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-8.10</td>
<td>Assembly</td>
<td>Assembly</td>
<td>Assembly</td>
<td>Assembly</td>
<td>Assembly</td>
</tr>
<tr>
<td>8.10-9</td>
<td>Religious Education</td>
<td>Language (L)</td>
<td>Language (L)</td>
<td>Language (L)</td>
<td>Language (L)</td>
</tr>
<tr>
<td></td>
<td>(50 mins)</td>
<td>Listening with understanding to spoken English</td>
<td>Learning with understanding to spoken English</td>
<td>Learning with understanding to spoken English</td>
<td>Learning with understanding to spoken English</td>
</tr>
<tr>
<td></td>
<td>Theme: Evt Sls: excursion exploring envt. Introduce habitat, study should be able to identify varieties of animals, plants and types of land formations in local envt. Record on flashcards (45 mins)</td>
<td>Weekly programme</td>
<td>Weekly programme</td>
<td>Weekly programme</td>
<td>Weekly programme</td>
</tr>
<tr>
<td></td>
<td>Maths</td>
<td>Maths</td>
<td>Maths</td>
<td>Maths</td>
<td>Maths</td>
</tr>
<tr>
<td></td>
<td>(105 mins)</td>
<td>(105 mins)</td>
<td>(105 mins)</td>
<td>(105 mins)</td>
<td>(105 mins)</td>
</tr>
<tr>
<td>10.30</td>
<td>Maths</td>
<td>Maths</td>
<td>Maths</td>
<td>Maths</td>
<td>Maths</td>
</tr>
<tr>
<td></td>
<td>(45 mins)</td>
<td>(45 mins)</td>
<td>(45 mins)</td>
<td>(45 mins)</td>
<td>(45 mins)</td>
</tr>
<tr>
<td></td>
<td>Theme: Evt Sls: How things relate to each other</td>
<td>Theme: Evt Sls: How things relate to each other</td>
<td>Theme: Evt Sls: How things relate to each other</td>
<td>Theme: Evt Sls: How things relate to each other</td>
<td>Theme: Evt Sls: How things relate to each other</td>
</tr>
<tr>
<td></td>
<td>Stu’s explain and give examples of how animals depend on each other; living and non-living things. Explain how people depend on animals and plants. Give examples of food chains. Explain the importance of animals found in certain areas of envt. (45 mins)</td>
<td>Stu’s explain and give examples of how animals depend on each other; living and non-living things. Explain how people depend on animals and plants. Give examples of food chains. Explain the importance of animals found in certain areas of envt. (45 mins)</td>
<td>Stu’s explain and give examples of how animals depend on each other; living and non-living things. Explain how people depend on animals and plants. Give examples of food chains. Explain the importance of animals found in certain areas of envt. (45 mins)</td>
<td>Stu’s explain and give examples of how animals depend on each other; living and non-living things. Explain how people depend on animals and plants. Give examples of food chains. Explain the importance of animals found in certain areas of envt. (45 mins)</td>
<td>Stu’s explain and give examples of how animals depend on each other; living and non-living things. Explain how people depend on animals and plants. Give examples of food chains. Explain the importance of animals found in certain areas of envt. (45 mins)</td>
</tr>
<tr>
<td></td>
<td>(45 mins)</td>
<td>(45 mins)</td>
<td>(45 mins)</td>
<td>(45 mins)</td>
<td>(45 mins)</td>
</tr>
<tr>
<td>After lunch</td>
<td>Monday</td>
<td>Tuesday</td>
<td>Wednesday</td>
<td>Thursday</td>
<td>Friday</td>
</tr>
<tr>
<td>1-3</td>
<td>Maths</td>
<td>Theme: Arts and Crafts Knowledge: community story teller to tell legends about hunting, with emphasis on customs - teach culture songs with actions based on legend - dramatise actions while singing culture song (60 mins)</td>
<td>Theme: Language (V)</td>
<td>Theme: Language (L)</td>
<td>Theme: Comely Living Needs and wants - students prepare food in local way of processing - record the steps in preparing - describe the steps of preparing local food - eat the food (60 mins)</td>
</tr>
<tr>
<td></td>
<td>(60 mins)</td>
<td>(60 mins)</td>
<td>(60 mins)</td>
<td>(60 mins)</td>
<td>(60 mins)</td>
</tr>
<tr>
<td></td>
<td>Theme: Language (V)</td>
<td>Drama and Lang (V)</td>
<td>Drama and Lang (V)</td>
<td>Drama and Lang (V)</td>
<td>Drama and Lang (V)</td>
</tr>
<tr>
<td></td>
<td>Knowledge: community story teller to tell legends about hunting, with emphasis on customs - teach culture songs with actions based on legend - dramatise actions while singing culture song (60 mins)</td>
<td>Songs and conversations based on hunting - Communicate effectively in spoken vernacular explaining and narrating hunting stories (30 mins)</td>
<td>Songs and conversations based on hunting - Communicate effectively in spoken vernacular explaining and narrating hunting stories (30 mins)</td>
<td>Songs and conversations based on hunting - Communicate effectively in spoken vernacular explaining and narrating hunting stories (30 mins)</td>
<td>Songs and conversations based on hunting - Communicate effectively in spoken vernacular explaining and narrating hunting stories (30 mins)</td>
</tr>
<tr>
<td></td>
<td>(60 mins)</td>
<td>(30 mins)</td>
<td>(30 mins)</td>
<td>(30 mins)</td>
<td>(30 mins)</td>
</tr>
</tbody>
</table>

From the weekly timetable, daily lesson plans would be developed. You can see the times are indicated on this Timetable, so it would not take much work to develop the daily program. This timetable is incomplete because the focus of the example was on the theme. Maths activities would need to be included.