

Inservice Units to Support the Implementation of the
Primary Reform Curriculum

**Unit 5:
Outcomes-based Planning
and Programming**

**Module 2: Approaches to planning
and programming**

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Assessor: Date:

Module 2: Approaches to planning and programming

Introduction

Welcome to *Module 2: Approaches to planning and programming*.

This module allows you to explore approaches to planning and programming, using the current teacher guides and syllabuses to help you in your thinking.

What is a plan?

A plan is an overview or an outline of what teachers plan or intend to do over a period of time. Examples are yearly overview, term overview or the outline of a unit of work.

What is a program?

A program is a detailed plan developed by teachers to manage teaching, learning and assessment activities for their students over a period of time. Programming assists teachers to expand their plans into sensible sequences of learning experiences and activities for their students. Examples are weekly programs and daily lessons.

What is an approach?

An approach is a way you choose to get to a destination (or do something). Every person has a preferred way (approach) of doing things and makes decisions that are based on individual situations.

Teachers have approaches to planning to programming. When teachers plan and program, they decide how best to do this. They might have a different approach for each subject or they might use the same approach for all subjects.

Teachers must implement the subject syllabuses (the curriculum), but they make their own decisions about their approach. The best approach for one class can be different from the best approach for another class, because the situation may be different—various class sizes, resources available, local culture, students' interests and experiences, teacher's skills and interests, and so on. However, particular approaches are recommended from time to time to meet specific policy guidelines.

The primary teacher guides provide lots of advice on planning and programming. They have been developed by the curriculum writers to help teachers in implementing the syllabuses. They have gathered together some good advice and practices for use in Papua New Guinea. The teacher guides were developed after a great deal of collaboration between officers of Curriculum Development Division (CDD) and teachers in the field.

Advice on both subject-based and integrated approaches is found in the teacher guides. However, teachers are advised to apply an integrated approach wherever possible for a number of reasons.

Integrated learning across subjects is a more efficient way of bringing together the breadth and diversity of outcomes and reflects the way we actually think and work in real life. Mathematics and Language are involved in much of what we do and therefore the outcomes of these two subjects can often be sensibly integrated as we plan, for example, in Personal Development or Science.

Many schools are already implementing outcomes-based curricula presented through the syllabuses. Outcomes serve as starting points in the planning process.

Firstly, this module focuses on the planning and programming process.

Clustering of the outcomes is the first step in the process. Clustering of outcomes can be done in a number of ways.

1. clustering a number of outcomes from the same subject for one grade (subject-based, integrated, single grade)
2. clustering a number of outcomes across a number of subjects for the same grade (integrated, across subjects, single grade)
3. clustering a number of outcomes from the same subject across grades (subject-based, integrated, multi-grade)
4. clustering a number of outcomes across a number of subjects across grades (integrated, across subjects, multi-grade).

Any outcome that cannot be clustered is dealt with separately.

5. The planning and programming then focuses on one outcome in one subject (subject-based, single grade).

All of the above are possible depending on the situation. However, developing plans and programs based on single outcomes as an approach is neither realistic nor natural and is therefore not recommended except when integration is not possible.

Secondly, this module focuses on 1, 2 and 5 above. Module 3 focuses on multi-grade planning and programming (3 and 4 above).

Thirdly, this module focuses on two ways of developing a unit of work.

All teacher guides provide a step by step approach to developing a unit of work. Let us call it the Teacher Guide Model (TG Model). There is an alternative approach (designing down) based on four questions. Both ways are discussed in this module.

To complete the activities in this module, you will need to have access to the syllabuses and teacher guides for primary grades 3-8. These are listed in the *Resources* section of the *Unit Introduction*. The primary syllabuses and teacher guides were delivered to schools in 2003-2005.

As you work through this module, you will find that some of your current practices and beliefs are supported. You may find others are challenged. When this occurs, try to think about whether your current practices reflect the expectations of curriculum reform. There will be ideas that you find in the teacher guides and syllabuses that are new. Remember now that all of the lower and upper primary syllabuses are outcomes-based. This in itself is new to most teachers and will require some new learning by everyone.

If you are seeking academic credit, make sure you have completed the *self-assessment* in the *Accreditation and Certification* section before you commence this module. As you work through the module, it may be useful to keep a running record of sections, parts and pages of the module where you can show evidence for particular unit outcomes. You may wish to record such information in your *Learning Contract*.

Module learning outcomes

When you have worked through this module, you, the learner, can (are able to)

1. discuss the advantages and disadvantages of subject-based and integrated programming
2. develop a plan starting with a single outcome, holistically
3. critique an integrated plan starting with a cluster of outcomes, holistically
4. compare and contrast the model of planning in the teacher guides with the designing down approach
5. develop assessment plans within units of work.

Section 1: The planning and programming process

The lower and upper primary teacher guides have split the planning process into two stages.

- Long-term plans consisting of yearly and term overviews. This is what a teacher does at the beginning of a year.
- Medium-term plans such as units of work from which short-term weekly and daily programs are derived.

Programs are developed from the plans. Programs include details and sequences of weekly and daily activities and connections between them.

1.1: Developing long-term plans



The Lower Primary Arts Teacher Guide, on pages 21-26, explains the process of arriving at a yearly plan spread out over four terms.

Read these pages with a colleague.

There are eight steps to the process, which are copied below:

Step 1: Study all seven lower primary syllabuses and teacher guides to become familiar with strands, sub-strands, learning outcomes, indicators and elaborations

Step 2: Teachers from the same grade or level can work together to cluster all the outcomes from the seven subjects into small clusters of about 4 outcomes. The clusters may be integrated across two or three subjects or from within the strands of Arts (subject-based). The clusters must link naturally together through a concept or theme.

Step 3: Record these clusters of outcomes on paper

Step 4: Crosscheck which outcomes you have used. You may need to repeat some learning outcomes more than once. This is particularly true for subjects like Language, Arts and Mathematics.

Step 5: Identify the theme of each cluster and record it next to the cluster.

Step 6: Some outcomes will not group into clusters easily and these can be taught on their own.

Step 7: Decide on appropriate month or week in the year to teach each theme or separate outcomes. You may decide to teach the separate outcomes in the same week as a unit of work by setting blocks of time aside in that subject.

Step 8: Now fill in the year plan.

Now let us look at the processes described in the other lower primary teacher guides for developing a yearly overview.



Skim read:

Environmental studies Teacher Guide, Lower Primary: page 32

Health Teacher Guide, Lower Primary: pages 25-28

Community Living Teacher Guide, Lower Primary: pages 21-23

Mathematics Teacher Guide, Lower Primary: pages 31-34

Language Teacher Guide, Lower Primary: pages 46-47

Physical Education Teacher Guide, Lower Primary: page 25

Having looked through the above mentioned teacher guides, prepare a number of steps that are logical to you, for developing a yearly plan.

Step 1:
Step 2:
Step 3:

The upper primary teachers guides provide some information about developing a year plan. You will find some useful information on the following pages:

Arts Teachers Guide, Upper Primary: pages 13-17

Language Teachers Guide, Upper Primary: pages 50-51

Making a living Teachers Guide, Upper Primary: pages 67-70

Mathematics Teachers Guide, Upper Primary: pages 22-25

Personal development Teachers Guide, Upper Primary: pages 21-24

Science Teachers Guide, Upper Primary: pages 30-32

Social science Teachers Guide, Upper Primary: pages 22-23



Read these pages carefully with a colleague.

- Use a mind map or another structure (eg. a table) to summarise any information new to you found in the upper primary teachers guides.

In summary then, clustering of outcomes is a critical step in developing long-term overviews of curricula that identify learning outcomes. Furthermore the process involves

- clustering outcomes that naturally link together
- naming the cluster with the linking idea or concept or theme
- allocating them to particular terms of the school year.

These are critical steps in developing an overview for the year and each of the terms.

1.1.1 Clustering within a subject



All lower primary and upper primary teacher guides promote integrated approaches across subjects in the planning process. However, some lower and upper primary teacher guides provide examples of clustering across strands within a subject. Examples are lower primary Language and Physical Education and upper primary Arts teacher guides.

Let us look at an example of clustering within a subject. Open the Lower Primary Language Teacher Guide to page 50.

All three strands of Language feature in this cluster but not all sub-strands. Some outcomes are for vernacular and the others are for English.

The clustering is done here with a pre-determined topic-Traditional myths and legends- in mind. This is likely to happen when clustering outcomes within any subject.

When Language or Mathematics outcomes are integrated with other subjects, it is the linking idea that provides the focus for the unit.

One of the 'bridging to English' strategies advocated through all lower primary syllabuses and teacher guides is 'programming for two languages'.

(Unit 8 in this series of in-service units focuses on bridging to English. You may wish to peruse this unit for further information on bridging approaches.)

If you re-group the selected outcomes, on page 50, into those to be developed through the vernacular and those through English, you will appreciate the need for having to program separately for the two languages.

The re-grouped outcomes are as follows.

Vernacular Outcomes

Strand	Sub-strand	Learning outcomes
Speaking and Listening	Production	3.1.1V Use a range of spoken text types for different purposes and audiences on familiar topics
Reading	Production	3.1.1V Read and respond to a range of text types on familiar and unfamiliar ideas and information
Writing	Production	3.3.1V Plan and produce a range of text types to develop familiar ideas and information

English outcomes

Strand	Sub-strand	Learning outcomes
Speaking and Listening	Skills and strategies	3.1.2E Use oral skills and strategies in simple classroom situations
Reading	Context and text	3.2.3E Recognise how simple written and picture texts are used to suit different purposes and solutions
Writing	Critical literacy	3.3.4E Identify how illustrations and simple descriptive language have been used in own text to represent people, places and events

- What similarities and differences, if any, do you see between the standard (in terms of knowledge, skills and contexts) of the two sets of outcomes? Explain your answer.

Hint: Have you noticed that all the English outcomes above refer to 'simple' situations whereas the vernacular outcomes refer to 'a range of text types'? Explain why this is so.



Let us look at another example. Open the Upper Primary Arts Teacher Guide to page 21. Read page 21.

Three outcomes from the same strand are clustered together here.

- What is the context in which the outcomes are to be learned and demonstrated by students?
- Where does this context come from?

- In what other contexts could the same cluster of outcomes be developed as a unit of work? Give two examples.

1.1.2: Clustering sub-strands



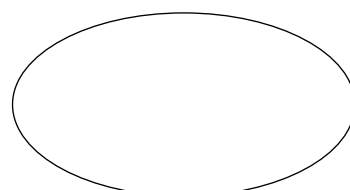
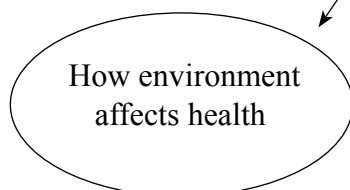
If you experienced any difficulties with clustering outcomes, there is an alternative way of doing it. This involves you working at the sub-strand level.

The strands and sub-strands in five lower primary syllabuses are shown below:

One cluster of sub-strands from Health and Environmental studies is shown, with the linking idea or concept being ‘How environment affects health’.

Strands and Sub-strands from five syllabuses

Arts	Community Living	Environmental Studies	Health	Physical Education
<ul style="list-style-type: none"> • Art - Skills in art - Creativity in art - Responding to art • Craft - Skills in art - Creativity in art - Responding to art • Dance - Skills in art - Creativity in art - Responding to art • Drama - Skills in art - Creativity in art - Responding to art • Music - Skills in art - Creativity in art - Responding to art 	<ul style="list-style-type: none"> • Community - People - Relationships - Ways communities work - Places • Trading - Meeting needs and wants • Culture - Customs 	<ul style="list-style-type: none"> • What’s in my environment? - Plants and animals - Changes in my environment - Links in the environment • Caring for my environment - Managing resources - Managing wastes 	<ul style="list-style-type: none"> • Healthy individuals - Growing up - Personal health - Nutrition - Harmful substance - Safety and first aid • Healthy communities - Health services - Healthy communities 	<ul style="list-style-type: none"> • Safety - Keeping safe • Movement - Basic movement • Physical activity - Games skills and modified sports - Fitness for health - Leisure and recreation



As you can see the sub-strands being linked are:

- Managing wastes (Environmental studies)
- Healthy communities (Health).

The outcomes in these sub-strands are:

Managing wastes:

3.2.2: Identify types and sources of waste and their impacts on the environment

4.2.2: investigate the consequences of waste and apply waste to minimise environmental damage

5.2.2: develop and implement action plans to manage waste production and disposal.

Healthy communities:

3.2.2: Discuss the need to care for their homes and demonstrate actions to keep them healthy

4.2.2: Survey unsafe situations at school and make plans to take action to reduce harm and promote health

5.2.2: Assess unsafe situations in the community and take action to reduce harm and promote health.

If you are a grade 3 teacher, you would select Outcomes 3.2.2 from Sub-strand: Managing waste and Outcome 3.2.2 from Sub-strand: Healthy communities as the outcomes around which to build a unit of work.

If you are a grade 4 teacher, you would select Outcomes 4.2.2 from Sub-strand: Managing waste and Outcome 4.2.2 from Sub-strand: Healthy communities as the outcomes around which to build a unit of work.

If you are a grade 5 teacher, you would select Outcomes 5.2.2 from Sub-strand: Managing waste and Outcome 5.2.2 from Sub-strand: Healthy communities as the outcomes around which to build a unit of work.

In addition to the selected outcomes from Health and Environmental Studies, you would include outcomes from Language and Mathematics, as appropriate.

For grade 3, Mathematics Outcome 3.1.3: *identify and recognise common fractions*, from Sub-strand: Fractions and decimals could be incorporated into the unit plan.

From Language, Outcome 3.1.1V from Strand: Speaking and listening, Sub-strand: Production: *use a range of spoken text types for different purposes and audiences on familiar topics* could be incorporated. An outcome from the writing strand could also be integrated into the plan.

So the final cluster of outcomes for a unit of work on ‘how environment affects health’ for grade 3 may look like this:

How environment affects health (grade 3)

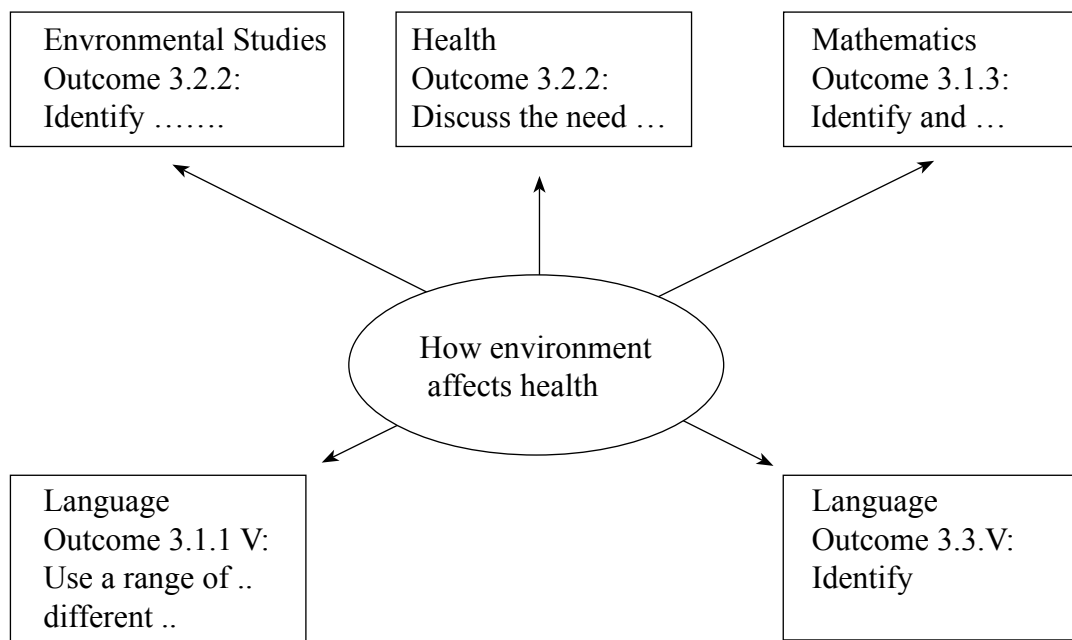
3.2.2: Identify types and sources of waste and their impacts on the environment

3.2.2: Discuss the need to care for their homes and demonstrate actions to keep them healthy

3.1.3: Identify and recognise common fractions

3.1.1V: Use a range of spoken text types for different purposes and audiences on familiar topics

3.3.3V: Identify different purposes and audiences for writing



Here we have a possible unit of work integrating four subjects; the language of instruction being a vernacular or tok ples.

Integrated units should include Language outcomes from all three strands, if possible and also Mathematics outcomes, where appropriate. Language is the medium through which a concept is learned, taught and assessed. All subjects contribute to literacy and numeracy development. So, if planned this way, each unit provides opportunity for purposeful language and mathematics development and their monitoring. Any such opportunity should not be missed.



Now do another cluster using the table on page 10.

Go back to the table and identify another cluster. Then name it.

Identify all outcomes that belong to the cluster. From the outcomes

- select the outcomes for grade 5

- include appropriate grade 5 Language outcome(s)
- identify language of instruction
- include Mathematics outcome(s), if appropriate.

Selected outcomes:

Concept or theme:

- Draw a map of this cluster. Use the map on page 12 as an example.

Having done the clustering of outcomes and having named each cluster, the final step in the process is to allocate the clusters to the four terms of the school year. Each cluster is then elaborated into a unit of work, using the linking idea or theme as the focus.

Any outcome(s) that could not be clustered is/are taught separately.

1.2: Developing medium-term plans

Examples of medium-term plans are units of work teachers develop from clusters of outcomes or single outcomes.

Units of work can be developed across subjects or within a subject depending on how the outcomes are clustered. They can be developed for a single grade or across a number of grades.

A unit of work can be developed as an outline and later elaborated into weekly programs and daily lesson plans.

Steps to developing subject-based units of work are discussed in Section 2 of this module.

Steps to developing integrated units of work (across subjects) are discussed in Section 3 of this module.

1.3: Developing short-term plans or programs

Examples of short-term plans are weekly programs and daily lesson plans. These are elaborations of units of work and may be presented as parts of a unit of work or separately.

Steps to developing weekly programs and daily lesson plans are also discussed in all teacher guides. The teacher guides also provide examples of weekly programs and daily lesson plans.

1.4: Developing on-going or fixed-time programs or activities

On-going or fixed-time programs are integral to weekly programs and daily lesson plans and are linked to particular outcomes. Examples are found on page 39 of Module 1.

Section 2: Developing Units of Work



After identifying the yearly overview of clusters of outcomes for a particular grade, and then allocating them to each term of the school year, teachers begin to focus on developing units of work.

All upper primary teacher guides define a unit of work as: *a series of sequenced teaching, learning and assessment activities that students do to achieve one or a group of learning outcomes within a specified period of time.*

All lower primary teacher guides define a unit of work as: *a series of sequenced teaching and learning activities with assessment tasks designed to help achieve learning outcomes within a specific timeframe.*

In essence both sets of documents are saying the same thing.

The Physical Education Teacher Guide, on page 27, explains the definition further. It states: *a unit of work provides information on knowledge, processes, skills and attitudes to be developed over a specific time frame. When planning an appropriate, effective and efficient unit of work with an outcomes focus, teachers should first identify the outcomes to be covered. Then a set of sequenced learning activities can be developed for the outcomes identified. The unit also incorporates the teaching and learning strategies and the types of assessment to be used to demonstrate the achievement of the outcomes.*

Planning a unit of work is based on a suggested process. When planning a unit of work, teachers should identify the requirements of the syllabus and use outcomes as starting points. At lower primary level, integration is encouraged to make learning more meaningful.

Integration also makes a teacher's work manageable.

2.1: Steps to developing a unit of work

There are two ways of going about developing a unit of work. They are:

- by following the steps provided in the lower and upper primary teacher guides. Let us call this the teacher guide model
- by following a thinking process based on four questions. Let us call this the designing down approach.

Lets us consider each of these in detail.

2.1.1: The teacher guide model



Open the Lower Primary Mathematics Teacher Guide to page 35. Here you see the process (steps) for developing units of work for lower primary. There are 10 steps in this process.

- Read the steps and details on page 35.

The steps are summarised here.

Step 1	Study the learning outcomes
Step 2	Cluster learning outcomes
Step 3	Identify a theme
Step 4	State the purpose of the unit of work
Step 5	Identify the knowledge, skills and attitudes
Step 6	Develop teaching and learning activities and assessment tasks
Step 7	State the language of instruction for teaching and learning activities and assessment tasks
Step 8	Estimate the time
Step 9	Develop a weekly teaching program
Step 10	Identify relevant sources and materials

- Do these steps make sense to you?
- Are all these steps necessary?
- Is the sequence what you would like to follow?
- Are steps 1-3 part of planning a yearly overview?
- If yes, what is the logical starting point for developing a unit of work?

Now look at the steps provided in the Lower Primary Language Teacher Guide (pages 48-49).

- Are there any differences between the steps identified in the Mathematics and the Language teacher guides? If yes, list them here.

Now turn your attention to the list provided in the Lower Primary Community Living Teacher Guide (pages 24-25).

- Are there any differences? If yes, list them here.

As you are becoming aware now, each lower primary teacher guide provides the same advice in this regard. This makes planning in a subject and across subjects easy.

Each of the lower primary teacher guides also provides a list of the components a unit of work should have.

Open the Lower Primary Mathematics Teacher Guide to page 36. Here you see a list of the components a unit of work should have.

The list is reproduced here:

- Grade
- Strands and sub-strands
- Learning outcomes (in a cluster)
- Links with other subjects
- Theme
- Teaching and learning activities
- Assessment methods and tasks
- Resources and equipment if required
- Timeframe

The above list does not include content (knowledge, skills and attitudes) required for learners to achieve the outcomes.

- Do you think 'content' should be part of units of work?

Now look at the list provided in the Lower Primary Language Teacher Guide (page 49).

- List some differences you have noticed between the two lists.

Now turn your attention to the list provided in the Lower Primary Community Living Teacher Guide (page 25).

- The differences are:

As you are becoming aware now, each teacher guide provides a list which varies in some respects.

So it is important for you to develop a general, personal model by identifying the important components that make sense to you and seem logical to you.

In order to do this, you make a comprehensive list of all possible components and then select a list for yourself.

The following table may assist you in this.

- Place a tick (✓) in the appropriate subject box, if a particular component is listed in a particular teacher guide. Some boxes have been 'ticked' for you. Now complete the table.

List of components	Arts	Comm. Living	Env. St	Health	Language	Maths	PE
Grade						✓	
Strands and sub-strands						✓	
Learning outcomes (in a cluster)						✓	
Links with other subjects						✓	
Theme					✓		
Teaching and learning activities						✓	
Assessment methods and tasks						✓	
Resources and equipment if required						✓	
Timeframe						✓	
Purpose							
Knowledge, skills and attitudes							
The language of instruction							
Weekly teaching program							
Programming in two languages							

- Complete the table and select and list the components that would appear to be necessary. Record the list here.

- Do you see a close relationship between the number of steps and the number of components?

Hint: There would be a close relationship between the components you have selected for a unit of work and the number of steps for developing a unit of work.

- From the list of components, identify a format for developing an outline of a unit of work (not all the details). Use the space below.



Share your format with a colleague. Record any significant comments made and your responses to them.

The upper primary teachers guides also provide similar information about steps to developing units of work and the components of a unit of work. You will find the information as follows:

Arts Teacher Guide, Upper Primary: pages 18-19
Language Teacher Guide, Upper Primary: pages 52-53
Making a Living Teacher Guide, Upper Primary: pages 37-41
Mathematics Teacher Guide, Upper Primary: page 28
Personal Development Teacher Guide, Upper Primary: pages 56-57
Science Teacher Guide, Upper Primary: pages 48-49
Social Science Teacher Guide, Upper Primary: pages 24-25

- Skim read the pages.
- Compare the list you have made for yourself on page 19 with the information found in the upper primary teachers guides.
- Do you see any major differences between the components for lower and upper primary?
- If you do, make a revised list of components and steps to developing a unit of work here.



Assessment Plans

Assessment plans are part of developing a unit of work when developing it holistically. Pay special attention to it.

- What are the components of an assessment plan?
- What is the importance of identifying each of the components?
- Is the concept of criteria new to you?
- Explain the concept of criteria in your own words.

2.1.2: The Alternative approach – Designing down

This approach is fundamental to outcomes-based planning and programming.

There is a discussion on outcomes-based education on pages 44-45 in *Module 2, In-service Unit 1: Philosophy of Curriculum Reform*. Some sections of this discussion are extracted here.



Read this information with a colleague: (pages 44-45, *Module 2, In-Service Unit 1 Philosophy of Curriculum Reform*):

The four principles of OBE are:

- *Clarity of focus through learning outcomes*
This means that everything teachers do must be clearly focussed on what they want students to ultimately be able to do successfully. For this to happen, the outcomes should be clearly expressed. If students are expected to learn something teachers must tell them what it is and create appropriate opportunities for them to learn it and demonstrate their learning.
- *High expectations of all students*
A fundamental aim of OBE is for all students to succeed. This can be a problem for those who think that some people are born 'smart' and therefore should learn a lot; that some people are born 'average' and therefore should learn a modest amount; and that some people are born 'dumb' and therefore should not bother to learn very much at all. Some people make similar assumptions based on the gender of a person or socio-economic status or ethnicity or a combination of these and other factors. The structure of traditional education, the way it is structured and defined, creates failure. Success is defined in a particular way and creates, simultaneously, the conditions that produce failure.

The high expectation principle means that as teachers we reject comparative forms of assessment and embrace criterion-referenced approaches. It also means abandoning streaming, curriculum tracking and specific ability groups.

The principle of high expectations is about insisting that work be at a very high standard before it is accepted as completed, while giving students the time and support they need to reach this standard. At the same time they begin to realise that they are capable of far more than before and this challenges them to aim even higher.

- *Expanded opportunities to learn*
Intellectual quality is not something reserved for a few students, it is something that should be expected of all students. This principle is based on the idea that not all students can learn the same thing in the same way in the same time. Some achieve the outcomes sooner and others later. However, most students can achieve high standards if they are given appropriate opportunities. Traditional ways of organising schools do not make it easy for teachers to provide expanded opportunities for all students.

For some students, school is a self-defeating experience for every day that they attend. Traditionally, school systems have been used for selecting and sorting students for

tertiary study. OBE presents changed expectations by advocating that if every student is given enough time and support, achievement of outcomes occurs for everyone. Currently there is a great deal of information about learning styles and teaching styles. This is creating greater diversity with regard to possible methods and opportunities for students to learn. The view that there is one single, best way of doing things is disappearing.

- *Planning and programming by designing down*
Designing down means that the starting point for planning, programming and assessing must be the outcomes – the desired end results. All decisions on inputs and outputs are then traced back from the outcomes. It means creating the fundamental building blocks that have to be in place for students to complete expected work and then progress to more advanced work.

The last point above explains what it means to ‘design down’.



Write down a description of ‘designing down’ in your words here.



The thinking process which supports the OBE principle of designing down is expressed through four questions:

1. What’s it that my students need to know and be able to do at the end of ...?

Here the teacher is thinking about the end points or outcomes of a learning experience. The learning outcomes for each of the subjects for grades 3-8 are provided in the outcomes-based syllabuses.

2. What’s the best way to find out if my students know and can do it?

Here the teacher is thinking about assessment. Assessment is a powerful tool in the learning process when it is used to provide timely and constructive feedback and to plan the next stage in the learning process. Here the teacher is not thinking about assessment for the sake of assessing but as a diagnostic tool for facilitating learning.

3. What are the best learning and teaching strategies to assist my students to learn and demonstrate the outcome(s)?

Here the teacher is thinking about the best or the most appropriate learning activities and teaching strategies that’ll enable students to achieve and demonstrate the achievement of learning.

This kind of thinking implies that learning activities can also provide assessment information (evidence of learning). Assessment is the process of building up a picture of a student's learning through a range of tasks and activities. Assessment does not always have to be summative. Formative tasks and activities can also be used to make summative decisions.

4. What is the most appropriate content-Knowledge, Skills and Attitudes-to assist my students to achieve the outcomes?

Here the teacher is thinking about the content-knowledge, skills and attitudes-that would be most appropriate for the learning process. Here content is seen as the vehicle for achieving the outcomes and not the end in itself.

The four questions above indicate a major shift in the thinking process from objectives-based approaches. Here the student is the focus, not the teacher. All the thinking and the planning are focussed on the student and the facilitation of learning.

Now let us relate these questions to the steps, listed on page 16, for planning a unit of work using the teacher guide model.



Read the steps and place them next to each of the questions in the box below. One box has been filled in for you.

Designing down questions	Steps from the teacher guide model
1. What's it that my students need to know and be able to do at the end of ...?	Step 1: Study the learning outcomes Step 2: Cluster learning outcomes Step 3: Identify a theme
2. What's the best way to find out if my students know and can do it?	
3. What are the best learning and teaching strategies to assist my students to learn and demonstrate the outcome(s)?	
4. What is the most appropriate content-Knowledge, Skills and Attitudes-to assist my students to achieve the outcomes?	

- From what you have learned so far, what are the differences between the teacher guide model and the designing down approach?

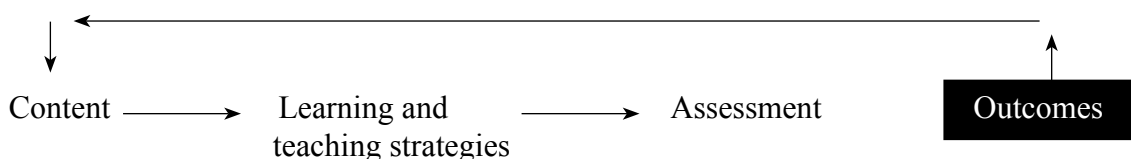


Read the following:

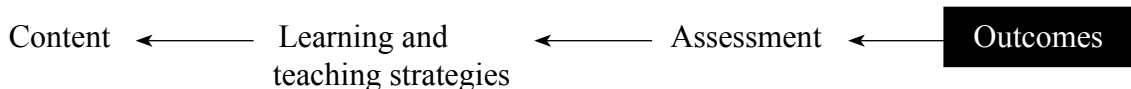
Designing down model requires a teacher to reverse the planning process from the traditional approach. In other words, a teacher works backwards from the outcomes to the content.

The following diagram illustrates the differences.

The teacher guide model:



Designing down approach:



The outcomes are the starting point and the steps are the same in both cases. However, the order or sequence in the thinking process is different.

2.2: Subject-based planning and programming



Read the following introductory information.

Most teachers are familiar with the subject-based approach in organising learning using the syllabuses. Subject-based programs have a set timetable for the whole term or the whole year, with set times for each subject. Each subject in lower and upper primary has a syllabus that provides the content overview and other details. Teachers select and cluster outcomes and organise this through a yearly overview, term overviews, units of work, weekly plan, and the daily lessons for each subject. Over a year, teachers work through each cluster, teaching it in these set times.

Subject-based planning and programming can be developed from one outcome or a cluster of outcomes from different strands or sub-strands of the same subject, as stated earlier. The teacher guides provide information about such planning.

Teachers who choose a subject-based program usually believe that each subject is very different to other subjects – with different knowledge, skills and attitudes to learn. Or it could simply be a simple strategy the teachers are applying to manage the curriculum, especially when they cluster outcomes within a subject. Clustering within a subject is an easier process than clustering across subjects.



2.2.1: Planning from a single outcome

Integrated planning should be the norm, that is, how you normally operate. The only time you'll resort to developing a unit of work from a single outcome is when an outcome cannot be integrated into a cluster. Otherwise the learning is likely to be fragmented and costly in terms of time.

In developing a unit of work from a single outcome, the steps are basically the same as those you have identified on page 16, except that clustering of outcomes does not take place.

Upper primary teachers guides provide you with some examples of planning a unit of work from a single outcome. You'll find this information on the following pages:

Social Science Teachers Guide, Upper Primary: pages 30-33

Mathematics Teachers Guide, Upper Primary: pages 26-28

Making a Living Teachers Guide, Upper Primary: pages 41-50

Science Teachers Guide, Upper Primary: pages 50-53



Skim read these sections.



Reflect on the advice provided in these sections of the teacher guides and respond to the following:

- What is an assessment plan?
- What are the components of an assessment plan?
- Do you understand the differences between an assessment method and an assessment task?
- Complete the following:
 - An assessment method is

Two examples are:.....

.....

- An assessment task is

Two examples are:.....

.....

Hint: You'll find answers to these questions on 'assessment, recording and reporting' sections of any of the teacher guides.

- Read page 20 of Upper Primary Arts Teacher Guide. It explains the process of identifying and describing criteria.
- Now write a statement of what *assessment criteria* means to you.

2.2.2: Integrating within a subject



Read the following information

Integrating within a subject is a smart way of managing the numerous outcomes identified in the lower and upper primary syllabuses. This involves integrating outcomes from different sub-strands within a strand or across strands. Being part of the same syllabus, the connections between the strands are easily recognised and the contexts easily set.

The Lower Primary Physical Education Teacher Guide, on pages 28-32, gives an example of an integrated unit within a subject.



Study this example carefully. Five outcomes from Physical Education are clustered together, the linking idea being Kapul Soka. This is Step 3 in the process of developing a unit of work (page 28)

- Which strands and sub-strands do these outcomes come from? List them here.
- Do the sub-strands help you to understand the reasons for clustering these outcomes?

Step 4 is to state the purpose of this unit of work (page 29).

The purpose of the unit is derived from the outcomes to be achieved, but is expressed in the teacher's own words. It is a re-hashing or re-stating of the outcomes.

Step 5 is to identify knowledge, skills and attitudes (page 29).

This information is provided in a table.

- Where do you think this information is extracted from?
- Would you have selected the same knowledge, skills and attitudes as those listed in the table? Explain your answer.

Step 6 is to develop teaching and learning activities and assessment tasks (page 29).

Thirteen teaching and learning activities are identified here. There are a number of interesting features evident in this list.

The first feature is that some of the activities are to be dealt with in English, some in the vernacular and some others in both vernacular and English.

In grade 3, the suggested proportion of use of the two languages for instruction and assessment is 60% for vernacular and 40% for English.

- Do you think the teaching and learning activities and assessment tasks roughly reflect the expected proportion of vernacular and English usage?

The second feature is that one teaching and learning activity is also identified as an assessment task.

This is a smart move and is also consistent with the advice in the *National Assessment and Reporting Policy*. The advice in the policy document is that teachers should integrate assessment as much as possible with the learning and teaching activities, particularly in the lower primary years.



Do you practise this? Does it make sense to you?



On page 30 of the Physical Education Teacher Guide you see an elaboration of the assessment activity identified on page 29, consistent with the focus of this unit of work.

- Read these pages with a colleague.

The assessment method identified is: observation of performance

The task is: students perform the skills of passing, kicking, throwing, heading and dribbling

- Will this task assess all aspects of the cluster of five outcomes?
- If not, how would you modify the task?

- Alternatively, you may wish to construct an additional assessment task. If this is the case, what would this assessment task be?

On page 30, you also see the criteria for assessing the task. Read this carefully.

- Are the criteria comprehensive? That is, does it look at all aspects of the task?
- If not, how would you modify or add to the criteria?

On page 30, you also see a recording scheme, a checklist, with a 3-point scale for rating the quality of students' achievement.

- Is this a satisfactory way of recording 'observation of performance of passing, kicking, throwing, heading and dribbling'?
- If you identified an additional assessment task, above, suggest a way of recording the assessment information.

When you have identified the assessment method, the assessment task, criteria for assessment and a recording method together as a package, you have developed *an assessment plan*.

On page 31, you see the beginnings of a weekly teaching program (Step 9).

This sample unit of work is an example of *holistic* planning and programming. Here the author has identified the outcomes, the content, the teaching and learning activities, the assessment plan, the time required for the unit, the weekly teaching program and relevant resources and materials.

Another example of integrating within a subject is found in the Upper Primary Arts Teachers Guide, pages 21-23.

- Study this example carefully.
- Do you think this is a holistic plan/program in comparison with the example discussed above from lower primary Physical Education? Explain your answer.

A third example of integrating within a subject is found in the Lower Primary Language Teachers Guide, pages 50-54.

- Study this example carefully.
- Now it is your turn to do a unit of work incorporating 3-4 outcomes within a subject for both lower primary and upper primary.

An Upper Primary Unit of Work (Designing Down Approach)

A large, empty rectangular box with a thin black border, occupying most of the page. It is intended for the user to design and plan an upper primary unit of work using the 'Designing Down Approach'.

Section 3: What is integrated planning across subjects and how is it used?

Teachers tend to use either an integrated approach across subjects or within a subject as a way to plan, program and deliver the curriculum. Really, a combination of the two is needed to avoid repetition of similar content and skills in the various subjects.



What does the *Language Lower Primary Teacher Guide* say about Integration across subjects (page 2)? Give a short summary in your own words.

Hint: You will find this information on page 2 of the teacher guide.

- Look carefully through the examples of programs and plans provided in Module 1 and identify those that appear to be subject-based. List them here.

HINT: You will find six examples in Module 1. Which ones appear to be subject-based? Take a guess at this stage if you have not done Module 1. Come back to this question after you have examined the six examples carefully.



Teachers have always been concerned about teaching different subjects as totally unrelated subjects because this is not really the way that people learn, work and live.

For this, and other practical reasons, teachers often link learning across different subjects. This provides a sense of direction for students, establishes the links between activities during the day, and enables teachers to gather and use classroom resources effectively.

In practice, teachers use a number of different ways to develop cohesive and purposeful links between learning in different subjects. Some examples are:

- Teachers identify a common idea or concept to link learning in different subjects but each subject area is still timetabled and taught separately.
- Broad issues and ideas are identified across subjects and these form the basis of clustering outcomes and teaching and learning programs. (eg 'land use' is introduced as an issue and connections are made with some of the subjects.)
- Overlapping and related content, concepts, skills and learning outcomes in different subject are identified and used to develop a common sequence of learning experiences which incorporates learning from several subjects.

An integrated program requires teachers to organise the outcomes into clusters that naturally link and organise the content and the teaching, learning and assessment processes around these linking ideas.

The essential difference from previous practice for many teachers is that they are not advised to start with themes and fit outcomes into them; instead, they are advised to cluster outcomes meaningfully and identify the linking idea or concept and name it (theme) when the clustering is being done.



Integration is about making connections

You can make links between your knowledge of curriculum and the way students learn, and your own practical classroom experiences. You can use learning and teaching strategies that deliberately address connections between subjects.

Students can make connections between what they see outside the school and what happens at school. They can explore significant issues and undertake learning which crosses subject boundaries. The process of learning enables students to see that a body of knowledge is a unified whole acquired through elements of all subjects. They can identify similarities, differences and patterns between subjects and develop cross-curricula knowledge and skills. They can use their learning and experiences across the curriculum regardless of subject barriers.

Integrating the curriculum can help **you and your students** to make sense of an increasingly complex world.

**Carefully look through the examples of plans and programs provided in Module 1.**

- Identify those that appear to be integrated and list them here. You will find 6 examples in Module 1.

Hint: Take a quick look at the six examples. Some appear to be integrated. Which ones are they? Make a guess at this stage if you have not done Module 1. Come back to this question after you have looked at the six examples carefully.

3.1 Looking closely at a unit of work in a teacher guide

The planning process for integrating across a number of subjects is similar to planning for integrating within a subject. However, it is a more complex process overall as the importance of the individual subjects in the cluster needs to be maintained.

An example of such a unit is found on pages 54-55 of the Making a Living Teachers Guide.

- Read pages 54-55 carefully with a colleague.

Now let us critique (look critically at) this unit using the designing down approach. This approach helps us to check the consistency between the outcomes, the assessment plan, the teaching and learning activities and the content.

As you may recall, there are four questions which are fundamental to this approach. They are found on pages 21-23 of this module.

Let us apply the four questions to the example.

The first question is: What's it that my students need to know and be able to do?

On page 54, you see the answer to this question – the outcomes 7.1.4 (Social Science), 7.1.1 (Making a Living) and outcomes 7.2.4 and 7.2.5 (Mathematics)

The second question is: What's the best way to find out if my students know and can do it?

Here we are thinking about 'assessment'. So let's look at the assessment ideas presented on page 55. Three assessment methods are presented here-analyses of student work samples and observation of student performance of task. Analyses of student work is to be used twice.

Three tasks are suggested. Students:

- make a scale drawing of a flowerbed

- prepare the flowerbed
- do an assignment on a problem on land use.

The criteria set for each of the tasks show the relationship between the tasks and the outcomes.

In order to make a judgement about the appropriateness of the tasks for the outcomes of the unit, we need to look at the outcomes carefully.

The outcomes use verbs such as: describe practices ..., propose solutions ..., investigate and compare consequences, plan, design and undertake a small project, compare areas ..., investigate areas



Reflect on the following questions:

- Do the assessment methods, tasks and criteria provide opportunities for students to demonstrate their learning in relation to the outcomes?
- What evidence suggests to you that they do or they don't?

Hint: Look for the correspondence between the verbs and concepts of the outcomes and the tasks and criteria set for the tasks. You would have to agree that they do correspond quite well. Perhaps the only area that does not feature in the tasks or the criteria is 'investigate and compare consequences'. A teacher in such a situation may decide to set another task for this purpose.

The third question in the thinking process is: What are the best or the most appropriate learning and teaching strategies to assist my students to achieve the outcomes?

So now we turn our attention to the information at the top of page 55.

Here we notice that the activities are identified for each of the three subjects that feature in this unit.



Even though the learning activities are planned separately, can they be integrated? Is it advisable to integrate them?

The learning activities are for the students, not the teacher.



Are all the learning activities student-centred?

The teaching strategies are what the teacher does or organises, where as the learning activities are what the students do in the learning process.

The plan shows how the assessment tasks and methods fit in with the formative learning activities.



Do you see any aspect of the outcomes not being addressed in the learning and teaching activities?

Now let us move to the fourth question: What is the most appropriate content to assist my students to achieve the outcomes?

To this question in relation to the unit of work, let us look at the information provided in the table on page 54. Read this information carefully and check it against the outcomes, learning and teaching strategies and the assessment plan.



Reflect on the following:

- Will the identified content enable students to achieve the outcomes?
- What is the correlation between the content and the learning and teaching strategies?

Hint: There must be very high consistency between the different aspects of the outcomes, the learning activities, the assessment plan while maintaining the integrity of the subjects that feature in the cluster.

3.2 Looking closely at a unit of work developed using the designing down approach.

The designing down approach does not get into the details of weekly and daily programs, but expects that if the assessment plan, the learning and teaching strategies and the content are consistent with each other and also with the outcomes, the weekly and daily programing and their delivery will be coherent with the unit plan.

Now it is your turn to critique (look critically at) a unit of work developed by a group of primary school teachers during a training program.



Use the four questions that guide the designing down approach to look at the example carefully.

Look for consistency between the outcomes, assessment plan, learning and teaching strategies and the content selected for this exercise.

Example: Integrated Unit-Designing Down Approach

GRADE: THREE (3)
SUBJECT: ARTS
OUTCOME: 3.1.3 Identify and describe traditional arts.
SUBJECT: ENVIRONMENTAL STUDIES
OUTCOME: 3.2.1 Identify useful resources in the environment and describe ways to use them wisely.
THEME: ENVIRONMENT
PURPOSE: Children will learn to use resources in the environment wisely.
TIME: Three (3) weeks
<p>ASSESSMENT PLAN</p> <p>ASSESSMENT METHOD</p> <ul style="list-style-type: none"> • Written responses <p>ASSESSMENT TASKS</p> <ul style="list-style-type: none"> • Draw, label and describe parts of plants and their uses. <p>ASSESSMENT CRITERIA</p> <ul style="list-style-type: none"> • Correct labelling • Clarity • Confidence • Neatness <p>RECORDING METHODS</p> <ul style="list-style-type: none"> • Checklist
<p>LEARNING AND TEACHING ACTIVITIES (Student Oriented)</p> <ol style="list-style-type: none"> 1. Students go to their local environment and observe plants and animals. (V) 2. Create a role play on how living things feel when their habitat is destroyed. (V/E) Assessable Task 3. Draw, label and describe parts of plants and their uses. (V/E)
<p>CONTENT</p> <p>KNOWLEDGE</p> <ul style="list-style-type: none"> • Useful plants and animals in the environment • Examples of plants and animals in the local environment. • Bush materials, seeds, leaves, tree saps, flowers, roots, grass, sticks, etc.

SKILLS

- Record different species of plants and animals
- Name, sort and classify different animals
- Modelling and plan work

ATTITUDES

- Work and share with others
- Value craft
- Appreciate environment

RESOURCES

- Plants in local environment
- Paper
- Crayon
- Questionnaire
- Markers
- Glue

- Having looked through this unit of work, answer the following questions.
 - Is the 'theme' appropriate for the selected outcomes?
 - Does the 'purpose' include both outcomes?
 - Is the assessment task the best for finding out whether a student has achieved both outcomes?
 - Are the learning and teaching strategies adequate to assist with the learning process?
 - Is the content selected the most appropriate to assist students with the achievement of the outcomes?
- If you have said 'No' to any of them, make some changes.

- If you have said 'Yes' to any of them, rethink your reasons.

Section 4: Planning a flow chart (a system) for developing your program

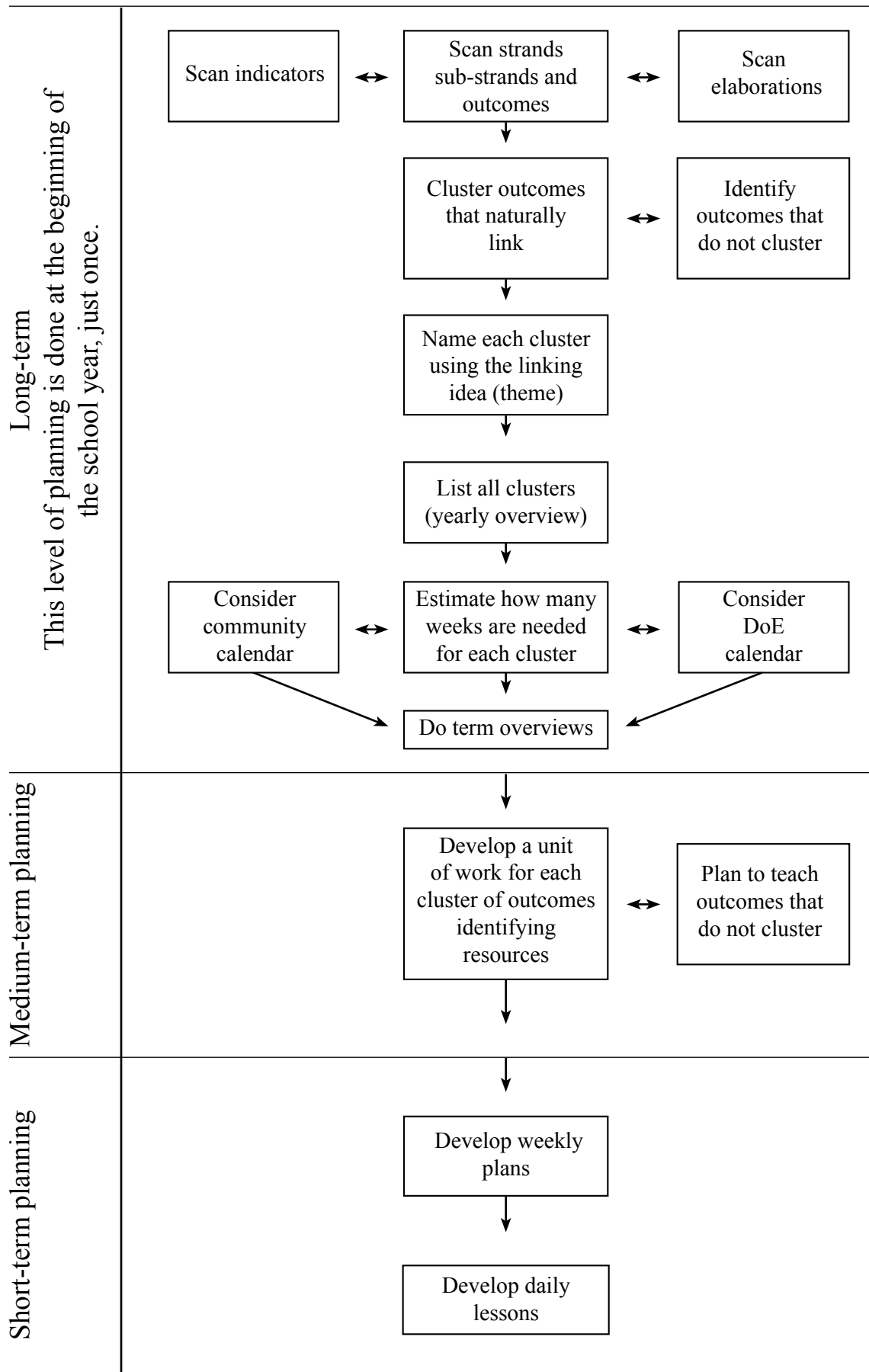
4.1: Planning a flow chart (a system) for developing your program



Imagine a teacher has come to you for assistance.

This teacher has some experience in “planning and programming” and has been studying the teacher guides. This teacher has already mapped out a sequence of steps, including resources to be used, to develop a program starting with the development of a yearly overview. The teacher’s sequence of steps is presented, on the next page, in a flow chart.

The teacher's planning process



**What advice would you provide the teacher regarding**

- the steps? (Are there any essential steps missing? Are all these steps necessary? Are there any that could be left out? – Indicate changes in the above flow chart.)

HINT: In providing advice here, consider your response to the previous set of questions. Compare your response with the above flow chart.

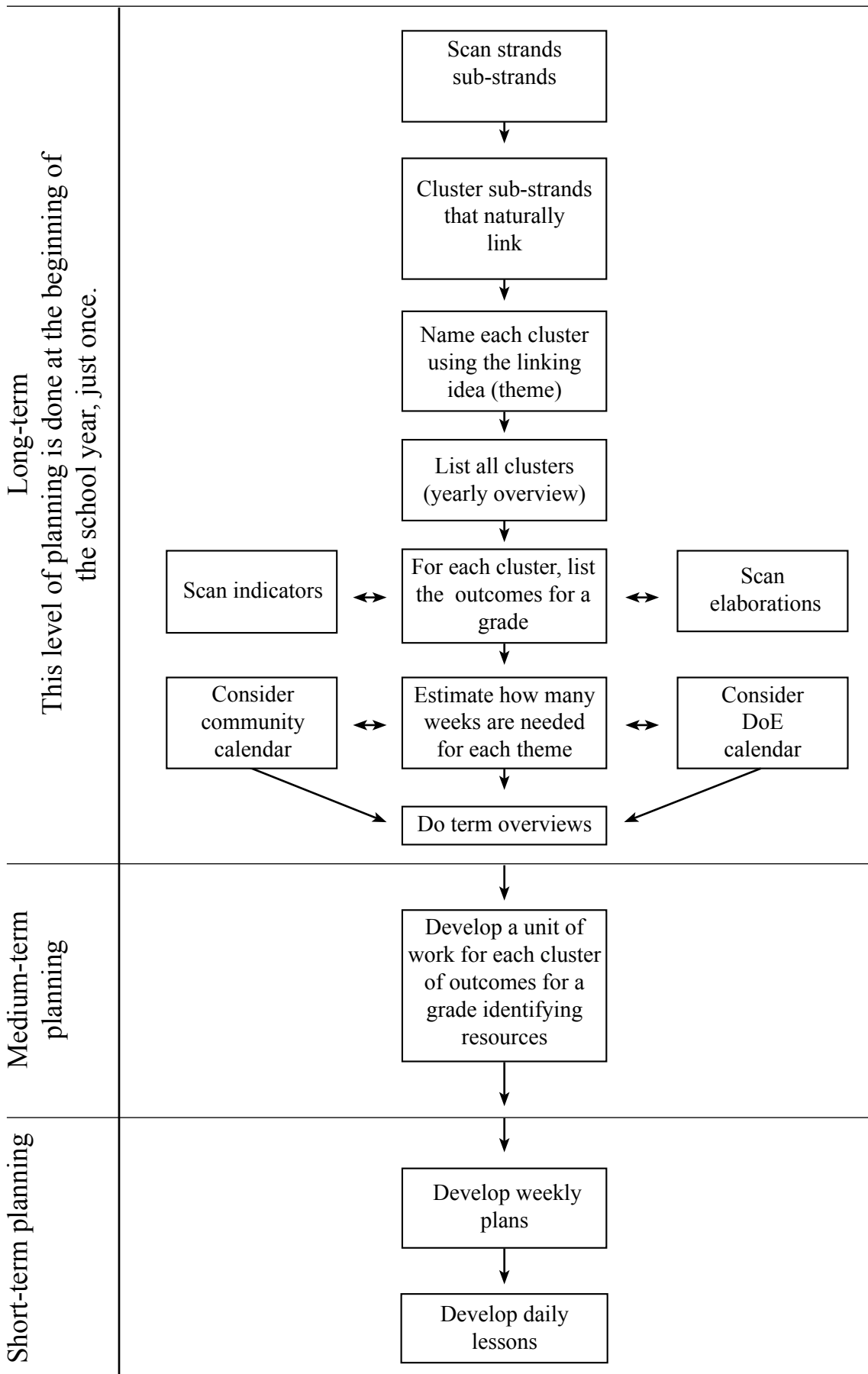
- the sequence provided? (If you have added or omitted steps, provide the new sequence – indicate changes in the above flow chart.)

HINT: Does the sequence matter for some of the steps above? Can some of the steps be combined?

- the outcomes which could not be clustered? (Should they teach in the term overviews? At what stage should a teacher plan to teach these outcomes?)

**Another teacher presents a different approach in a flow chart.**

A second planning process



**What advice would you provide the teacher regarding**

- the steps? (Are there any essential steps missing? Are all these steps necessary? Are there any that could be left out? – Indicate changes in the above flow chart.)

HINT: In providing advice here, consider your response to the previous set of questions. Compare your response with the above flow chart.

- the sequence provided? (If you have added or omitted steps, provide the new sequence – indicate changes in the above flow chart.)

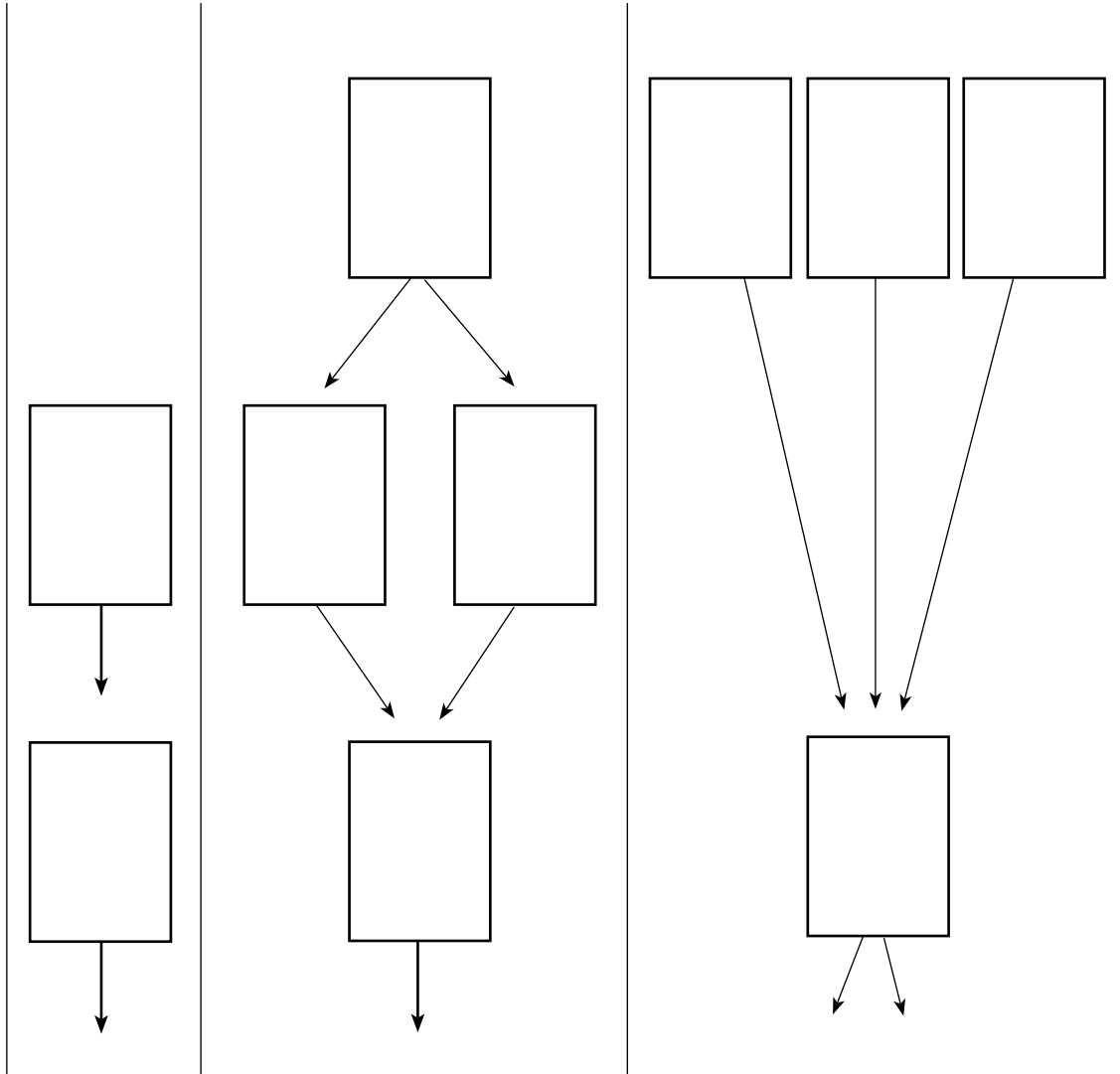
HINT: Does the sequence matter for some of the steps above? Can some of the steps be combined?

- the outcomes which could not be clustered?
-
- What are the main differences between the two flow charts?

4.2 Planning your own flowchart (system) for developing from yearly overview → term overview → unit of work → short-term programs

Now design a flow chart for yourself. Possible formats for you to consider are given below. There may also be other ways of presenting your flow chart.

- Draw your flow chart on the next page.



HINT: Decide on the number of essential steps, what they are and how they are linked. Then draw a flow chart to represent this on the next page.

My chart



Share your flow chart with your colleagues and explain to them why you have chosen a particular way of presenting it.

- Find out what your colleagues think of your flow chart.
- If you think their suggestions are worth considering, re-consider the flow chart you have developed above. Re-sequence the list and do a new flow chart, if appropriate, in the space provided here.

The revised flow chart

HINT: This flow chart may be very much the same, or it may be very different. It will depend on your discussions.



On the basis of your learning so far, reflect on the following, with a critical eye. Write your reflections in the space below.

- how you have been planning and programming in the past

HINT: The response to this question will depend on your particular situation.

- the changes, if any, you would like to make to the way you have been planning and programming.

HINT: The response to this question will depend on your particular situation. Mention any particular strategies or new steps you would be willing to try.



The teacher responses on pages 6-7 of Module 1 are reproduced here.

- Think about these responses in the light of the examples you have worked through and your own experiences, and write down your comments on each response.
 - *'Programming isn't quick or easy, but a well thought out program is a good starting point for successful teaching.'*
 - *'Teachers' programs clarify where they and their students are going and how they are going to get there.'*
 - *'A good program provides a strong sense of direction and purpose, while still being flexible enough to respond to changing learning priorities, interests and contexts'.*
 - *'A program starts as a plan for what teaching and learning will happen and ends up as a record of what actually took place'.*

- *'Primary teachers' programs are very individual and come in all shapes and sizes. Programs are working documents and very few remain unchanged for long'.*

- *'Programs are both 'personal' and 'public'. They are for personal use and will reflect the teachers' beliefs about teaching and learning. At the same time, they can demonstrate to others what has been taught and why teachers teach the way they do. Plans may be developed individually, in collaboration with others or through a combination of both.'*

- *'There are many facets to a program: it may have several parts spread over a number of notebooks or may all be together in one folder'.*

- *At the beginning of the year, with a new class, a teacher's plan would most likely take a long-term view and cover issues in a general way. As time progresses the program will become more specific and focus on short term teaching/learning issues'.*

HINT: The response to the above statements will depend on your particular situation and perspectives, and any new thoughts you may have.

Module Summary

Congratulations! You have reached the end of this module! You should by now have developed certain knowledge, understandings, insights and skills as they relate to planning and programming for bridging to English in lower primary years.

You critically looked through some examples of ‘planning and programming’ provided in Module 1.

You read about and reflected on the concept of integration.

You were introduced to two approaches to planning and programming, developed a planning flow chart for yourself, examined a number of plans and programs in the teacher guides, critiqued units of work and reflected on the implications of these for your practice.

All of these activities will help you to appreciate the processes of developing plans and programs that can assist you to teach effectively in a focussed way, maximise student learning as well as meet the reform requirements.

Having completed the module, how do you rate yourself in relation to the module outcomes?

Can you:	Yes/No/ Not sure
1. discuss the advantages and disadvantages of subject-based and integrated programming?	
2. develop a plan starting with a single outcome, holistically?	
3. critique an integrated plan starting with a cluster of outcomes, holistically?	
4. compare and contrast the model of planning in the teacher guides with the designing down approach?	
5. develop assessment plans within units of work?	

If you answered ‘Yes’ to all of them, you have done very well. Think about the kinds of evidence which will support the achievement of each of the outcomes. If you have said ‘No’ or ‘Not sure’ to some, then it may be worth your while to go over the appropriate sections of the module again and have another go at repeating the tasks, and/or reflecting on your difficulties and seeking help.

Remember that these module outcomes help you achieve the outcomes of the unit. Refer back to the outcomes of the unit in the *Unit Introduction* and reflect on where you are in relation to those outcomes.

If you are seeking academic credit, you were advised to keep a running record of any evidence you may have for particular unit outcomes. If you have not been doing this, go back over the module and jot down in your *Learning Contract*, what you might consider to be evidence for the unit outcomes for which you have agreed to provide evidence.

Additional space for your notes

Additional space for your notes