Education Reform and the lower secondary curriculum

Section 1

Structural and curriculum reform

Activity 1

Brainstorm

1. What do you know about structural reform?
2. What do you know about curriculum reform?

Education reform

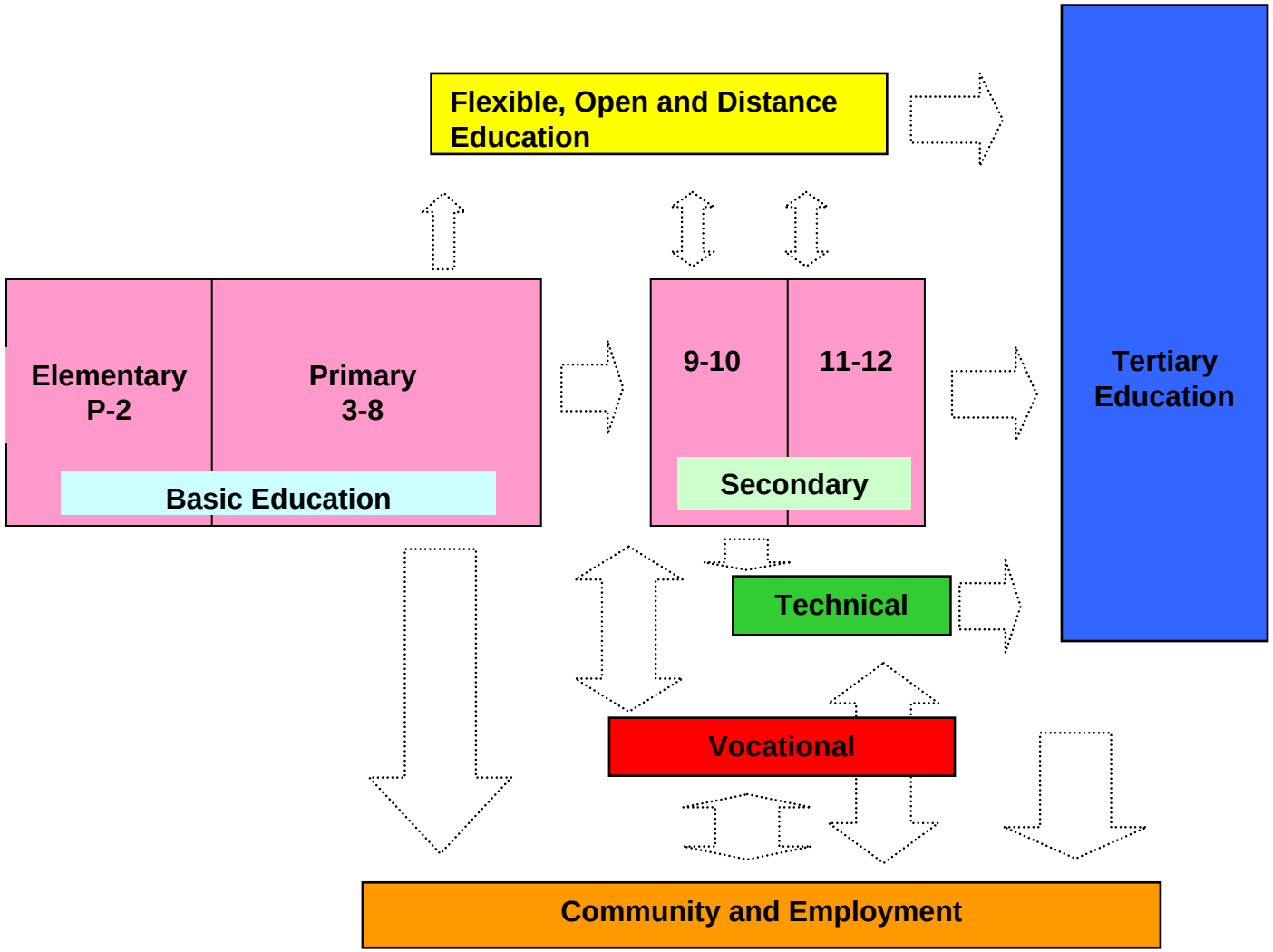
Reform has been in place for a decade under the

- *National Education Plan 1995-2004*
- *NEP Update 1 – 1999*

and more recently in

- *NDOE (2004): Achieving a better future: A National Plan for Education 2005-2014*

The Education Structure (Pathways)



Curriculum reform

Two major policy documents guide curriculum reform

- *National Curriculum Statement* (NDOE, 2002)
- *National Assessment and Reporting Policy* (NDOE, 2003)

Change to outcomes-based curriculum

- The major change in the reform curriculum is the shift to a focus on **learning outcomes**, that is, what students **know** and **can do** at the end of a learning period, rather than a focus on what the teacher intends to teach.

What is an outcomes-based curriculum?

In the Papua New Guinea school education system, the outcome-based curriculum identifies what students will demonstrate as a consequence of following the national syllabuses developed for Elementary Prep to Grade 12.

(National Curriculum Statement: 2003: page 4)

What is an outcomes-based curriculum?

Each subject syllabus identifies a set of outcomes for each grade that students are expected to achieve. Syllabuses provide examples of the knowledge, skills, attitudes and values that students will need to demonstrate in order to achieve the learning outcome.

Why an outcomes-based curriculum?

Learning outcomes are student centred and written in terms that enable them to be demonstrated, assessed or measured. Teachers are able to teach and students are able to learn more effectively when the outcomes of learning are made explicit and are shared.

School-based Activity

You have been supplied with extracts from the three key policy documents and an activity sheet.

- **Step 1** - As a team when you return to your school, read through the materials and complete the task
- **Step 2** – Take the teachers in your school through the same task to ensure all teachers are familiar with the policy documents and their roles and responsibilities as secondary educators

Section 2

LOWER SECONDARY REFORM CURRICULUM

The new lower secondary curriculum:

- is outcomes based
- maintains the best features of the current system
- is skills based
- is relevant
- is flexible and adaptable to change
- accommodates school creativity
- is responsive to local needs
- provides learning options

The new lower secondary curriculum:

- gives equal status to all subjects
- provides schools and/or students some opportunities to specialise
- is written for PNG by Papua New Guineans
- is consistent with NCS curriculum principles
- articulates with the Primary Curriculum

1: Subject fields

- There are nine subject fields available

  Large schools should be able to offer all nine, small schools may be restricted in their choices.

  Initially there will only be one subject syllabus developed for each field. The Design and Technology syllabus contains more than one subject.

Arts	Design & Technology	Social Science
Agriculture	Language (English)	Personal Development
Business Studies	Mathematics	Science

2 : Subject Pattern

- Students must study a total of seven subjects from at least six subject fields (More than one subject is available in the Design & Technology subject field – Home Economics, Practical Skills, Computing, D&T - General)
- All students MUST study English, Mathematics and Personal Development.

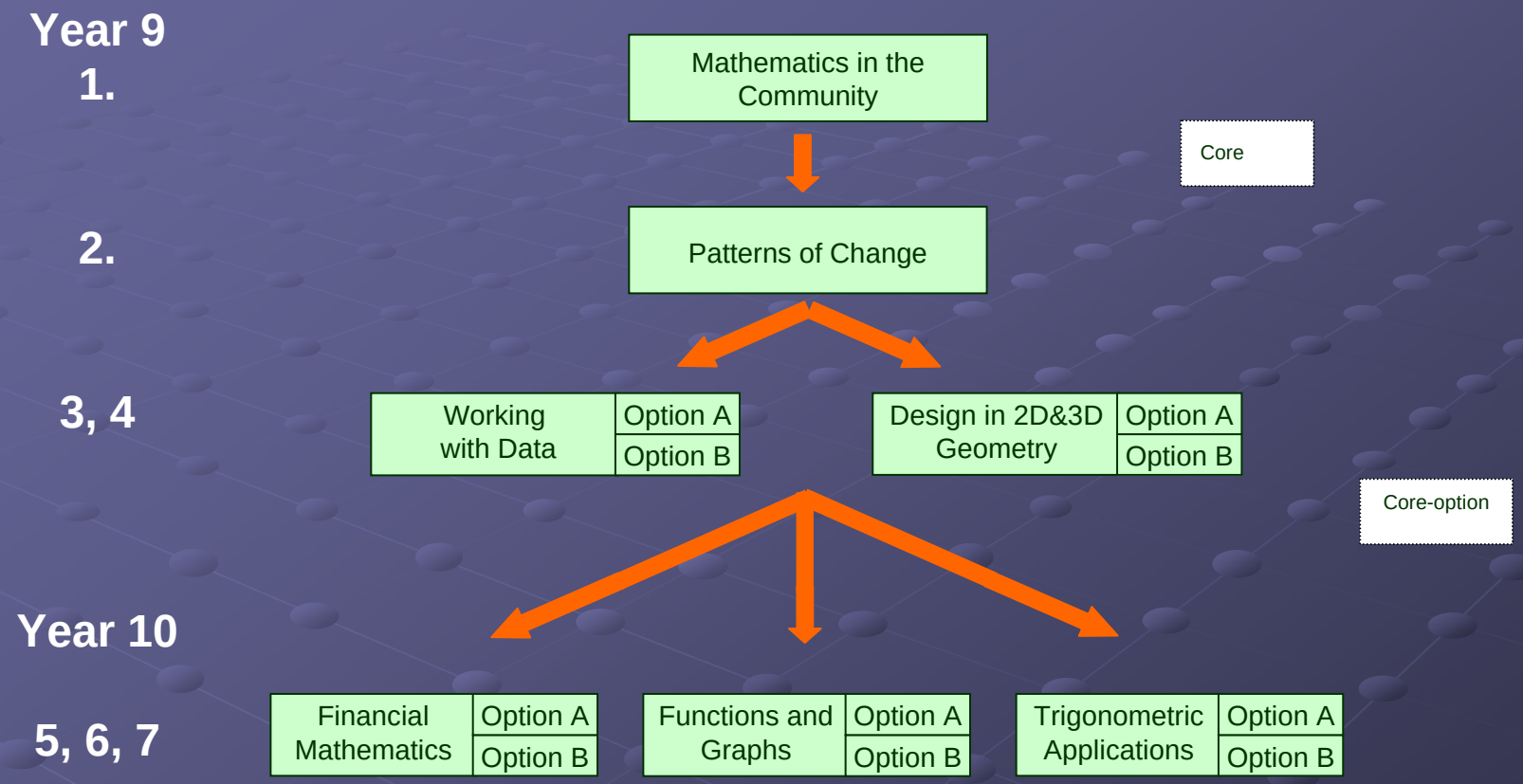
3. Learning outcomes

- All subjects are developed using learning outcomes
- Students are assessed on their achievement of the learning outcomes

3. Learning outcomes

- Each subject field has a number of broad learning outcomes
- Units within the subjects have outcomes that are linked to the broad learning outcomes.
- Optional and extension units within the subject have the same learning outcomes

Sample syllabus structure - Mathematics



Example of broad learning outcomes

Mathematics

Students can:

- demonstrate an awareness of traditional and contemporary mathematics in Papua New Guinea
- identify and apply mathematical skills in everyday life
- investigate and solve mathematical problems
- communicate mathematical processes and results both orally and in writing
- undertake investigations individually and cooperatively in which mathematics can be applied to solve problems

Example of mathematics unit outcomes

- Unit: Working with data (core)
  - Option A – Random events and simulation
  - Option B – Statistical surveys

- Students can
  - Represent, interpret, analyse and solve problems using discrete and continuous data
  - Estimate and calculate probabilities

4: Syllabus Pathways

- Each subject has core units that contain the essential knowledge and skills for the subject.
- Optional/extension units for each subject enable students to learn further knowledge and skills based on their needs

Sample syllabus pathways – Social Science

There are seven core units and one optional unit. All students must complete the four core units in grade 9 and the three core units in grade 10. All units are 10 weeks long. Extensions are provided in some core units for students who wish to study the content in more depth. Schools may teach the Grade 10 option unit if they wish to.

9.1 Places in the Pacific region	***Extension*** - Climate
9.2 Population change, resources and migration	***Extension -*** World population distribution and density
9.3 Investigating Papua New Guinea history	

ACTIVITY 2

- You have been supplied with extracts from the Social Science, Personal Development and Design & Technology syllabuses
- We will now look at those extracts to gain an understanding of the structure and requirements of the syllabuses.

5: Time Allocation

- All subjects have an equal time allocation of 5 periods a week
- All schools are required to allocate one period a week to Religious Instruction, one period to Guidance and one period to Library & Research Skills
- Schools can choose how to allocate the remaining 2 periods to meet local requirements or agency requirements

6: School Developed Units

- School developed units will be developed within the nationally approved syllabus framework
- School developed units will be accredited by the Department of Education
- School developed units will be approved for use for a period of 3 years

6: School Developed Units (example for Arts syllabus)

"Schools can use the unit framework to offer Arts optional units that have not been developed in this syllabus. Examples of units which schools could offer using the framework unit are:

Carving	Weaving	Contemporary art
Abstract art	Jewellery/bilas	Batik
Screen printing	Beading	Working with clay
Metal art and sculpture		Puppets
Miming	Storytelling	School plays
School band	Choir	Writing music

7. Syllabus documents

For each subject there is a:

- Grade 9-10 Syllabus
- Grade 9 Teacher Guide
- Grade 10 Teacher Guide

8. Assessment

- All subjects are assessed internally and externally
- Assessment measures how well the student achieved against the outcome
- There is both assessment for learning (formative) and assessment of learning (summative)
- Assessment is criteria referenced
- The assessment criteria help the teacher plan and manage and mark assessment tasks

When?

- Syllabuses and teacher guides will be printed and distributed to schools to allow for preparation for implementation during 2007
- Inservice will also be provided during this time
- Implementation starts with Grade 9 in 2008
- First new School Certificate exam will be in 2009

ACTIVITY 3

- Skim read the syllabus extracts and answer the questions allocated to your group.