CPD QTS MATERIALS

Workbook for Teachers

Part Time In-Service QTS Programme
Professional Studies

Course 3: Teaching and Learning

(5 days, 1 Credit)

South Sudan

Contents

It's important to see all five modules in overview and see how each connects with each other and the previous courses on how children learn.

Module 1:
The three principles of planning

This module explores ways in which learning experiences can be designed, extended and re-enforced.

Course 3: Teaching and Learning

Module 1: The Three Planning Principles

This module explores the ways in which learning experiences can be designed, extended and re-enforced.

Key Points:

- There are three planning principles that guide how teachers plan learning
- Each principle is related to how children learn and enables teachers to facilitate learning effectively
- Teachers must use their knowledge of the subjects and the curriculum content to plan teaching and learning.
- To know how to teach well, we need to understand how people learn –building on the learning from Module 2.

Outline

Session	Content
1	Gap task reflection slides 2 and 3 • *Activity 1 – Discuss in pairs – 3 focussed questions about the gap task* • *Activity 2 - In groups of 4 discuss and look for similarities of learning from the gap task* Introduction to module 1 of course 3. Learning outcomes (slides 5 – 7)
2	What are the three planning principles? • *Activity 3 - Review the principles in the Guidance for the Arts (slide 9)* • *Activity 4 – note key points into workbook (slide 10)* Reminder from module 2 How children learn (slides 11 – 14) • *Activity 5 Planning activity principle 1 (slides 15 and 16)*
3	• *Activity 6 - Planning principle 2 (slides 18 and 19)* • *Activity 7- Planning principle 3 (20 and 21)*
4	Review using Curriculum Framework and Guidance for Arts • *Activity 8 - peer review planning (slides 23 and 24)* • *Activity9 - Individual reflection and prepare chosen plan to teach in class (slide 25)*

Resources

Curriculum Framework
ECD Curriculum and Guidance
Selection of Syllabus Units
Guidance for the Arts

Background information

Visible thinking routines

Harvard Graduate School Project Zero

A tool box of routines and frames that can be used to support student learning and thinking across all age groups and all subjects. Derived from Project Zero's Visible Thinking research.

Routines you will use in this course include:

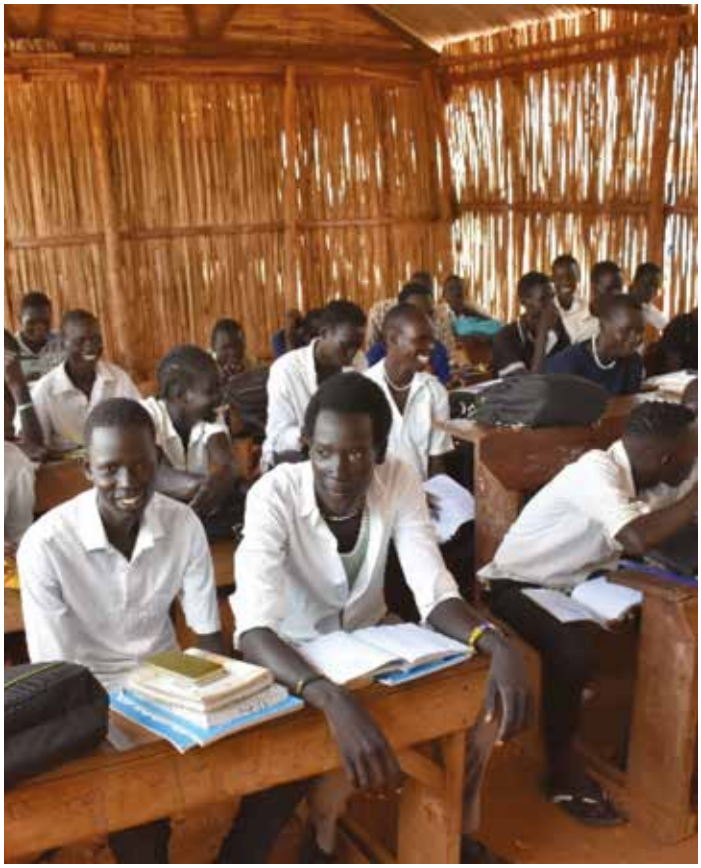
- **Think Pair Share** (Think as an individual, pair with another person to share the thinking and then share with another 2 people)
- **Think Puzzle Explore** (What do you think you know about this topic?

  What questions or puzzles do you have?

3. What does the topic make you want to explore?)

- **Headlines** (Writing a news headline or drawing a picture to capture the key message in material you have read)
- **3-2-1 Bridge** (Writing 3 words, 2 phrases and 1 metaphor to help you remember important points from a text. Then repeating this after a teaching session and looking for the connection between what you thought before and after the teaching)

To learn more about PZ Thinking Routines and their background, **watch this video** introduction and read PZ's initial Visible Thinking research.



Teacher Guide for The Arts

The Three Planning Principles

Principle One

One learning activity leads to many learning outcomes

The examples in this section for Principle 1 illustrate the fact that one learning activity can be designed in such a way that it can lead to many learning outcomes within and beyond the subject that they are designed for. So an activity designed to help learners achieve one key Arts learning outcome, will also provide opportunities for learners to make progress towards many other learning outcomes in The Arts as well as other related subjects according to the context of the activity.

In the example here, we can see an Arts activity that is designed to stimulate learners to develop short dramatic performances. But because the activity is 'rich' in context and uses a sufficient variety of experiences, the activity can lead to valuable learning in Social Studies. The activity also makes a valuable contribution to the development of the competencies of Communication and Creative thinking.

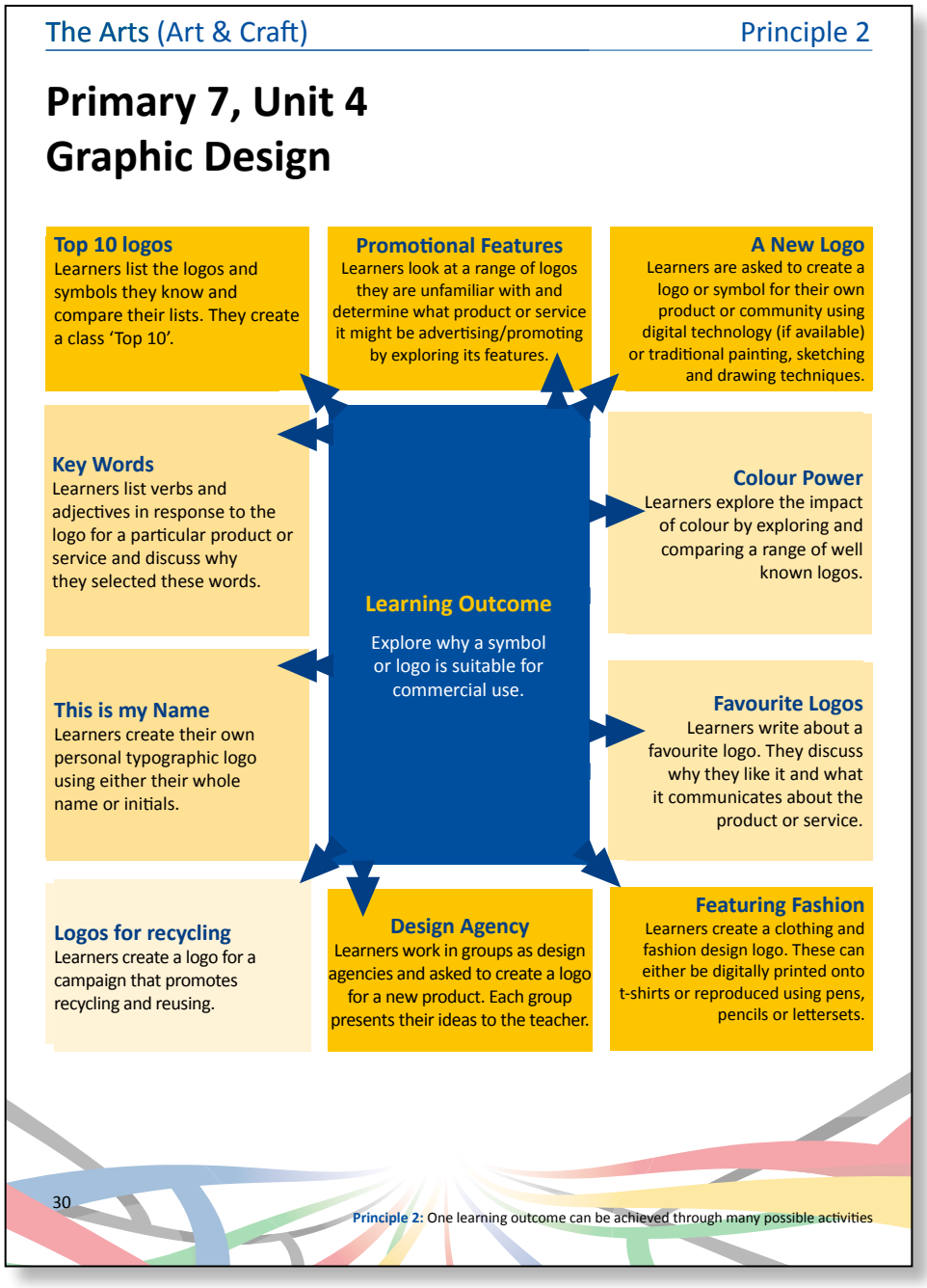
Principle Two

Learning outcomes need more than one learning activity

Principle Two reminds us that it is not usually sufficient for learners to explore learning around a single learning outcome only once. In order for learners to develop a deep understanding of a particular aspect of learning and therefore be able to apply this learning in a range of situations, they need a variety of activities to ensure that this deep learning takes places.

Principle two requires that teachers think creatively about how a particular learning outcome can be explored. Many examples and ideas are provided in the Syllabus units itself, but there are opportunities for further activities to be developed, particularly if these can be linked to other areas of learning in the curriculum.

In this example, learning about the use of symbols and logos for commercial use is developed through a range of activities. This varies from creating a new clothing design logo to listing verbs found in existing slogans and logos.



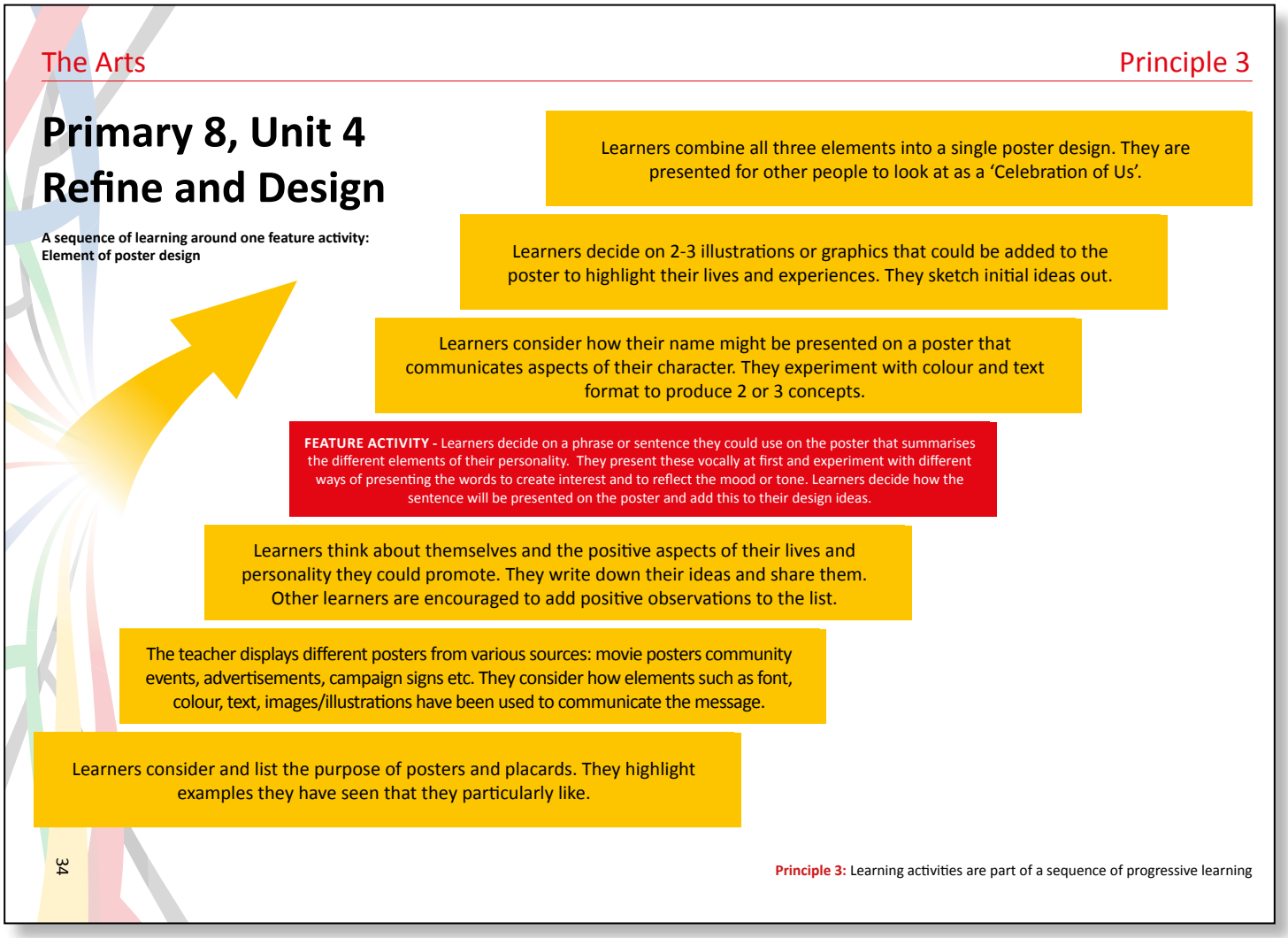
Principle Three

Learning activities are part of a sequence of progressive learning

It is important to remember that learning is never in isolation. It continually builds on prior knowledge and makes progress towards higher levels of thinking, deeper understandings and richer banks of knowledge. Attitudes are developed as these sequences move forward and so we have learners reaching towards the intended aims of the curriculum.

The Unit Breakdowns explored previously in this Guide, provide a description of progress through a unit to some extent, but steps in learning are usually smaller and more particular than a large step forward at the end of each lesson. Formative assessment strategies (discussed in more detail in the related Assessment Guide) should ensure that learning is monitored and supported at frequent intervals throughout a lesson as well as throughout a unit to ensure that misconceptions and uncertainties are corrected at timely intervals.

This example for P8 illustrates how a feature activity to design a poster can encourage progress in learning to that point. The feature activity can also inspire further learning that builds on the success of the related learning outcome to that point.



Approaches to teaching and learning

Approaches to teaching and learning must be in line with the aims, values and principles of the Curriculum, and need to be capable of bringing about its aims. To be effective, the values of the curriculum must permeate teaching and learning strategies. The principles suggest a shift of emphasis towards more active and personalised learning.

There is emphasis within the curriculum on the development of the four competencies in order to achieve the aims. These four competencies are both the object and the means of learning, so the strategies must embody and promote them.

All of this has profound implications for teaching and learning approaches. It will not be possible to bring about new aims with only traditional approaches. There are implications for the nature of the textbooks and also for sort of learning experiences that are provided within the classroom.

To achieve the broader aims, teaching and learning strategies need to be:

- centred on the learner rather than the teacher
- interactive, and give learners the opportunity to engage actively with their learning
- rooted firmly in the learner's experience, culture and environment so that they can make sense of their learning in their own terms
- chosen to be appropriate to the particular intended learning

In order to provide a balance between the acquisition of knowledge and understanding and the development of skills and attitudes learners need to be involved actively in their learning and be given opportunities during lessons to practise skills such as investigation, collaboration and critical thinking, and to be given opportunities through discussion and reflection to develop the desired attitudes 18 and dispositions.

How children learn. ECD curriculum guidance.

The new curriculum sets out clear "Learning Outcomes" for children, and it also sets a minimum range of experience that they need.

It is the role of the teacher and the school to devise learning activities within the range of experiences that will enable the children to achieve the learning Outcomes. This section of the Guidance will help with this.

The learning activities need to match the particular way in which young children learn, so we need to consider this first. In particular, we need to think about the key aspect of language development.

How young children learn

Young children learn through doing things rather than by sitting and listening, and they learn through play, so activity and play must be the basis of teaching and learning. Teachers need to be facilitators of learning, arranging stimulating activities and resources, and engaging children in rich learning experiences. For effective learning to take place, these activities must be accompanied by talk. Teachers need to stimulate this talk, and must 'model' (by example) good speaking and good listening. Children need to be encouraged to reflect upon their learning and to talk to others about what they are doing. This helps them make sense of new information.

Young children need to be helped to explore the world around them and develop the early understandings and skills that will enable them to take their learning forward as they get older. They need help developing their own emotional stability and learning to adapt to social situations. They need help to develop their language abilities through speaking, singing and listening. They also need the space and the time to develop these skills and understandings.

Young children learn from those around them, so as teachers we must be careful to model the sorts of behaviour we expect from the children.

Language development is a key aspect of the ECD phase. The ability to communicate clearly and with confidence through speaking and listening provides the basis for later reading and writing and all future learning. Young children need constant opportunities to speak and to listen to others. The ECD phase should be a time of talk.

Language Development

In accordance with the national “Implementation Guidelines for National and Foreign Languages” the language of education will be a National Language to be selected by the school. Children learn to read and write best in their own language, and then can transfer these skills to English. All the international evidence suggests that this is more successful than trying to learn English and to read and write at the same time.

The evidence also suggests that children find it easiest to learn to read and write if they have a good grounding in spoken language and a wide experience of drawing and manipulating shapes and other objects. There is a danger in trying to teach formal reading and writing before these fundamental “pre-reading skills” have been developed. This is why spoken language and practical activities are so important at the ECD stage. The two are not separate: children should be encouraged to talk about their practical activities.

Pre-Reading and Pre-Writing

Children should not be introduced formally to reading and writing at the ECD phase. The new curriculum makes this clear. It is much more important that children develop their “pre-reading and pre-writing skills” and these are developed through the range of learning activities in which they engage.

This means:

- Spoken language (in terms of vocabulary and the way they speak in sentences) through a wide range of opportunities to talk to adults and other children
- Listening skills through listening and responding to talk and to stories, and also listening to music and discriminating sounds
- Ability to recognise rhymes and rhythms through songs and repeated refrains in poems and stories
- Manipulative skills through drawing, painting, making models etc, so that they will be able to form letters and words at a later stage
- Shape recognition skills through sorting, matching, drawing and puzzles to help the recognition of letters and words.

Letter sounds are important, but young children often find it easiest to recognise whole words first though names and labels and later in some key words in simple story-books being read to them.

All the evidence suggests that if the “pre-reading skills” are well developed and children have a wide range of experience and a confidence in learning, then learning to read and write will come quickly.

Session 1, Course 3, Module 1

Session 1
Module 1 The Three Planning Principles
Introduction and learning objectives
Activity 1 and Activity 2 – see tables opposite. **Session 1 Notes** Learning objectives for today are: • Understand and apply the three planning principles • Design learning opportunities within the three principles. **At the end of the session you will reflect on how well you can:** • Explain the 3 principles and why they are important (relate to how people learn) • Give examples of what the principles look like in planning • Plan activities that demonstrate the principles. **Key points** • There are three planning principles that guide how teachers plan learning • Each principle is related to how children learn and enables teachers to facilitate learning effectively • You will draw on the learning you did in module 2 about how children learn.
Any questions to note?

Session 1, Course 3, Module 1

Activity 1

Gap Task (Module 2)

In a pair discuss

Question to discuss	Key points you made	Questions you have?
What you did for the gap task.		
What you learned from it.		
What you will do differently from now on.		

Activity 2

Gap Task (Module 2)

What did you learn from the gap task?
Talk to your group and then note down similarities and differences in what you learned.

Similarities	Differences

Session 2, Course 3, Module 1

Session 2
Module 1 The Three Planning Principles
What are the three planning principles? • *Activity 3 - Review the principles in the Guidance for the Arts* • *Activity 4 – Note key points into workbook* Reminder from module 2 - How children learn • *Activity 5 - Planning activity principle 1*
Any questions to note?

Session 2, Course 3, Module 1

Activity 3

Review the planning principles – make a note that will help you to remember the three principles

Planning principle	What does this mean? Write or draw to help you remember
1. One learning activity leads to many learning outcomes	
2. One learning outcome requires more than one learning activity	
3. Learning activities are part of a sequence of progressive learning	

Activity 4

Review approaches to learning and how children learn

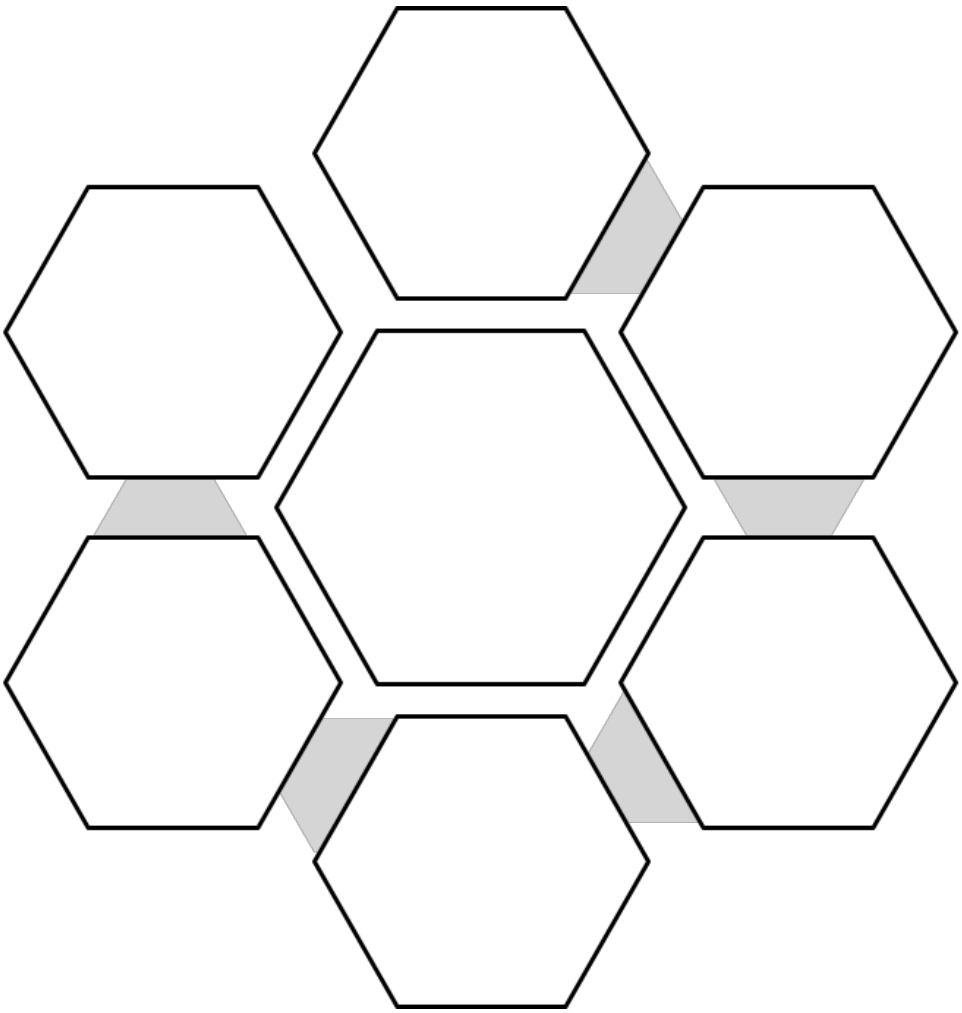
Notes of key points:

Session 2, Course 3, Module 1

Activity 5

Planning activity (Principle 1)

One learning activity leads to many learning outcomes. Make sure the activity is in the centre and write in the learning outcomes in the outer circle.



Any notes or questions?

Session 3, Course 3, Module 1

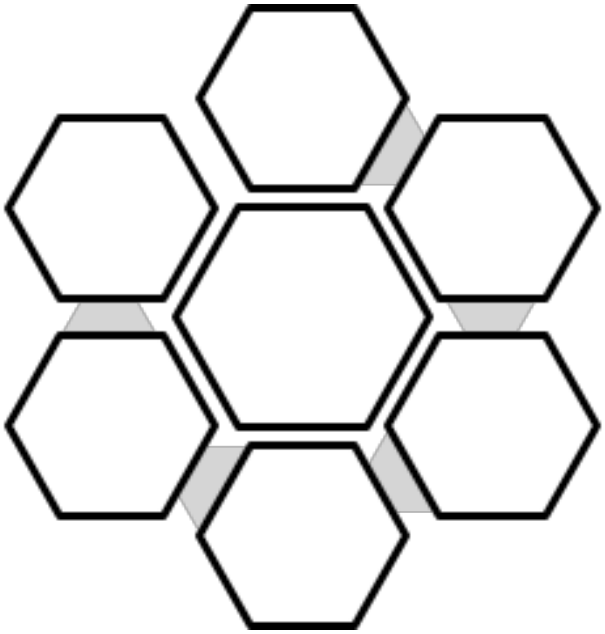
Session 3
Module 1 The Three Planning Principles
• *Activity 6 Planning activity principle 2* • *Activity 7 Planning activity principle 3*
Session Notes

Session 3, Course 3, Module 1

Activity 6

Planning principle 2

One learning outcome requires more than one learning activity
Make sure the learning outcome is in the centre, and possible learning activities in the outer circle.



Activity 7

Planning principle 3

Learning activities are part of a sequence of progressive learning
Use this page to plan the sequence of learning.

Session 4, Course 3, Module 1

Session 4
Module 1 The Three Planning Principles
• *Activity 8 Reviewing and reflecting* • *Activity 9 : Reflection on the day*
Session Notes

Session 4, Course 3, Module 1

Activity 8

Reviewing other's planning

Note down the key things you noticed and want to remember.

Activity 9

Reflection on the day

What have you learned?
Write down anything you want to remember.
Putting the planning into action • Choose one of the plans that you worked on in your group that you will teach to your class. • Make any changes to the plan so that it really suits your class.

Module 2:
Creating learning opportunities

This module emphasises the importance of creating learning opportunities that allow learners to develop the higher levels of learning.

Course 3: Teaching and Learning

Module 2: Creating learning opportunities

This module explores the ways in which learning experiences can be designed, extended and re-enforced.

Key Points:

- To know how to teach well, we need to understand how people learn
- Children make sense of the world through experiences (Piaget)
- Teacher's role is to carefully match the experience and the activity to the learning objectives
- There are different forms of learning – knowledge, understanding and skills
- Learning is brought about by a range of experiences
- Teachers should create opportunities for learners that match the different forms of learning
- Bloom's Taxonomy is an important model that classifies learning into levels of complexity, starting with the basic level of memorising knowledge and becoming increasingly more complex
- Bloom's Taxonomy should be applied to the context of learning in the classroom and will be further explored in module 4 on questioning

Outline

Session	Content
1	Introduction to the module – learning points and objectives • *Activity 1 Think, Puzzle, Explore (Visible Thinking Routine)* Bloom's Taxonomy – information in Subject Overviews and Background Information • *Activity 2 – key phrases to explain levels of Bloom's Taxonomy* • *Activity 3 – Activities that match Bloom's Taxonomy from Subject Overviews*
2	• Different forms of learning • Slides to review previous learning on Knowledge, Skills and Understanding • *Activity 4 Group presentations on Knowledge Skills and Understanding and how this relates to Bloom's Taxonomy* • *Activity 4 success criteria on the style of the presentations* • *Activity 5 Reflection on the activity and how well it related to the learning*
3	• *Activity 6 Examples of learning activities that match the different forms of learning* • *Activity 7 Tips and hints for other teachers* Putting Bloom's and forms of learning into planning practice • *Activity 8 Plan a sequence of learning that combines KUS and Higher Order Thinking* • *Using success criteria for high quality planning in this context*
4	Review and reflection • *Activity 9 Peer Review of planning* • *Activity 10 respond to feedback* • *Activity 11 individual reflection and notes on learning from the day*

Resources: Curriculum Framework, Subject Overviews, ECD Curriculum and Guidance, Background information

Background information

Key points about this module

- To know how to teach well, we need to understand how people learn
- Children make sense of the world through experiences (Piaget)
- Teacher's role is to carefully match the experience and the activity to the learning objectives
- There are different forms of learning – knowledge, understanding and skills
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- Bloom's Taxonomy should be applied to the context of learning in the classroom and will be further explored in module 4 on questioning

Visible thinking Routines

Harvard Graduate School Project Zero

A toolbox of routines and frames that can be used to support student learning and thinking across all age groups and all subjects. Derived from Project Zero's Visible Thinking research.

Routines you have already used in this course include:

- **Think Pair Share** (think as an individual, pair with another person to share the thinking and then share with another 2 people)
- **Think Puzzle Explore** What do you think you know about this topic?

  What questions or puzzles do you have? What does the topic make you want to explore?
- **Headlines** - Write a news headline or draw a picture to capture the key message in material you have read

To learn more about PZ Thinking Routines and their background, watch this video introduction and read more about PZ's initial Visible Thinking research.

Bloom's Taxonomy

Bloom's Taxonomy is a classification of the different objectives and skills that educators set for their students (learning objectives). The taxonomy was proposed in 1956 by Benjamin Bloom, an educational psychologist at the University of Chicago. The terminology has been recently updated to include the following six levels of learning. These 6 levels can be used to structure the learning objectives, lessons, and assessments of your course.

1. **Memorising:** Retrieving, recognising, and recalling relevant knowledge from long-term memory.
2. Comprehension: Constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarising, inferring, comparing, and explaining.
3. **Applying:** Carrying out or using a procedure for executing or implementing.
4. **Analysing:** Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through differentiating, organising, and attributing.
5. **Synthesising:** Making judgments based on criteria and standards through checking and critiquing or evaluating
6. **Creating:** Putting elements together to form a coherent or functional whole; reorganising elements into a new pattern or structure through generating, planning, or producing.

Like other taxonomies, Bloom's is hierarchical, meaning that learning at the higher levels is dependent on having attained prerequisite knowledge and skills at lower levels. You will see Bloom's Taxonomy often displayed as a pyramid graphic to help demonstrate this hierarchy.

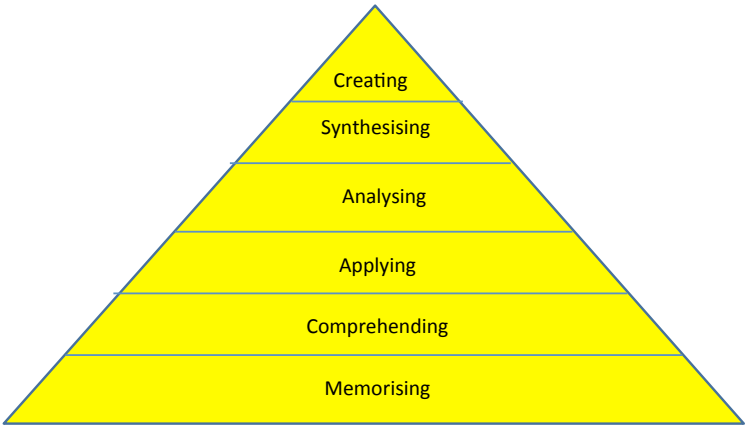
Background information

Bloom's Taxonomy Verbs

When developing curriculum for your class, keep this list nearby. This will help you determine the level of response you are anticipating from your students

Creating	appraise, argue, assess, choose, conclude, critic, decide, evaluate, judge, justify, predict, prioritise, prove, rank, rate, select
Synthesising	compose, construct, create, design, develop, integrate, invent, make, organise, perform, plan, produce, propose, rewrite
Analysing	analyse, characterise, classify, compare, contrast, debate, deduce, diagram, differentiate, discriminate, distinguish, examine, outline, relate, research, separate
Applying	apply, change, choose, compute, dramatise, interview, prepare, produce, role-play, select, show, transfer, use
Comprehending	conclude, demonstrate, discuss, explain, generalise, identify, illustrate, interpret, paraphrase, predict, report, restate, review, summarise, tell
Memorising	count, define, describe, draw, find, identify, label, list, match, name, quote, recall, recite, sequence, tell, write, count

Skills'. These are illustrated in Bloom's Taxonomy which divides learning into six ascending levels. The lowest level is memorizing (which refers to knowledge) and the second is comprehending (which refers to understanding). To reach the higher levels, learners have to use a 'higher order thinking skill' to apply their learning in some way. This is illustrated in the diagram below:



Bloom's Taxonomy

It will be helpful to bear this in mind when using the Subject Overviews. The Higher Order Thinking Skills have been built into the expected learning outcomes. For example:

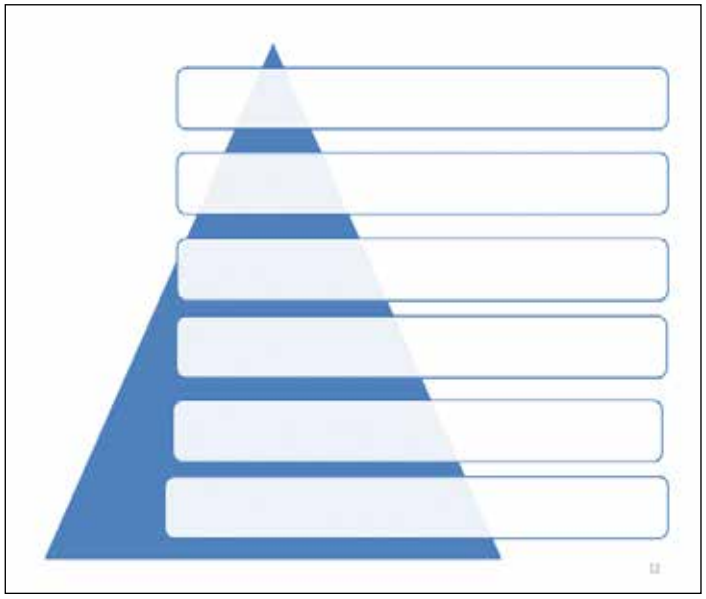
P3 Science: *"Investigate air pressure .."* (apply)

P3 Social Studies: *"Compare.. to a contrasting location"* (analyse)

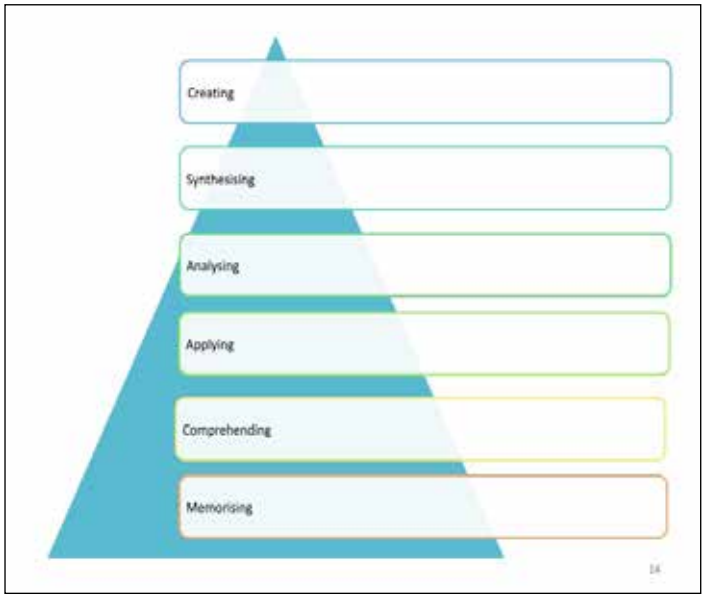
S1 History: *"Analyse pre-colonial trade ..."* (analyse)

S2 Citizenship: *"develop informed arguments .."* (synthesise)

P5 English: *"communicate ideas creatively ..."* (create)



Template for activity 2 Bloom's Taxonomy



Template for activity 3

Activity 3
In groups, look at the 2 subject overviews

a) Highlight where you see examples of the key verbs related to Bloom's Taxonomy.
b) Select the best 3 examples of learning outcomes for each of the 6 levels in Bloom's.
c) Compare your 3 best examples with another group who are looking at the same subject as you.

Approaches to teaching and learning

Approaches to teaching and learning must be in line with the aims, values and principles of the Curriculum, and need to be capable of bringing about its aims. To be effective, the values of the curriculum must permeate teaching and learning strategies. The principles suggest a shift of emphasis towards more active and personalised learning.

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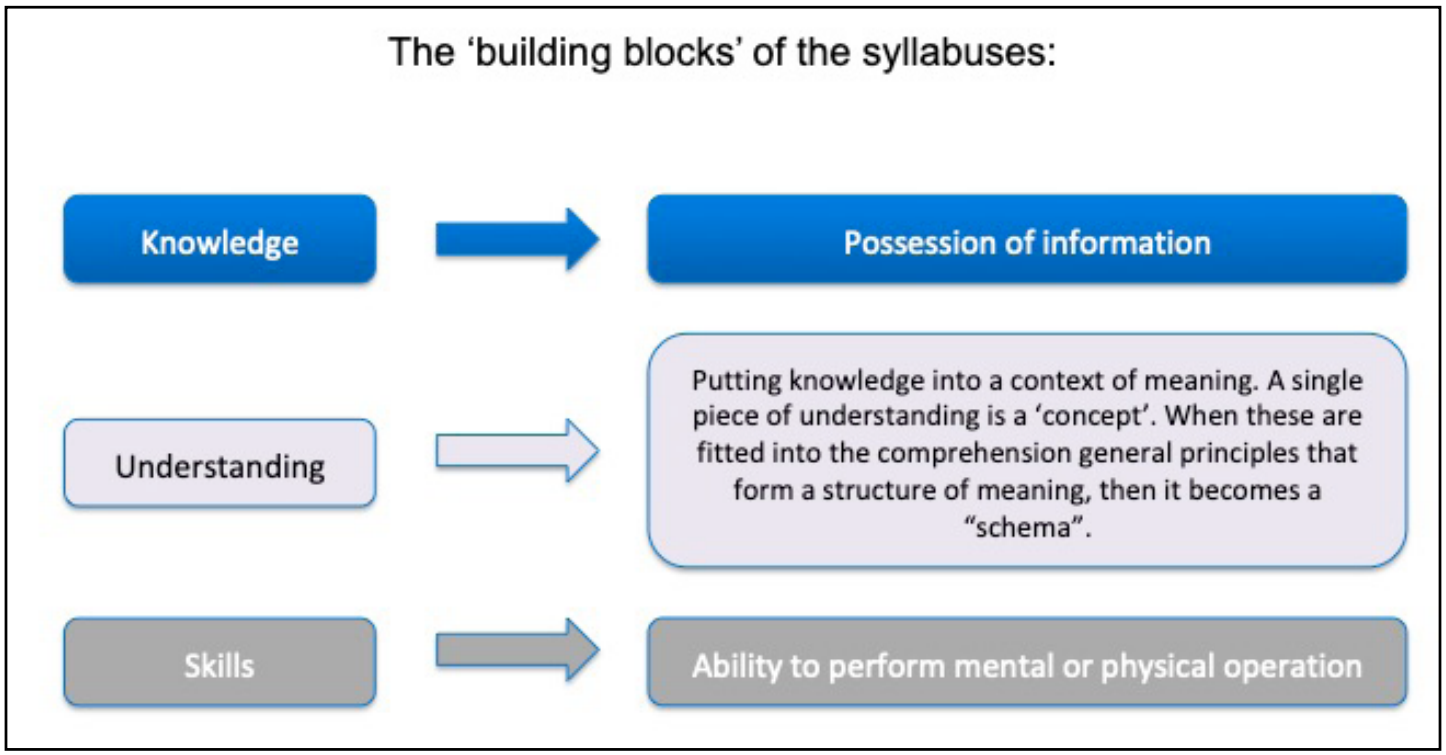
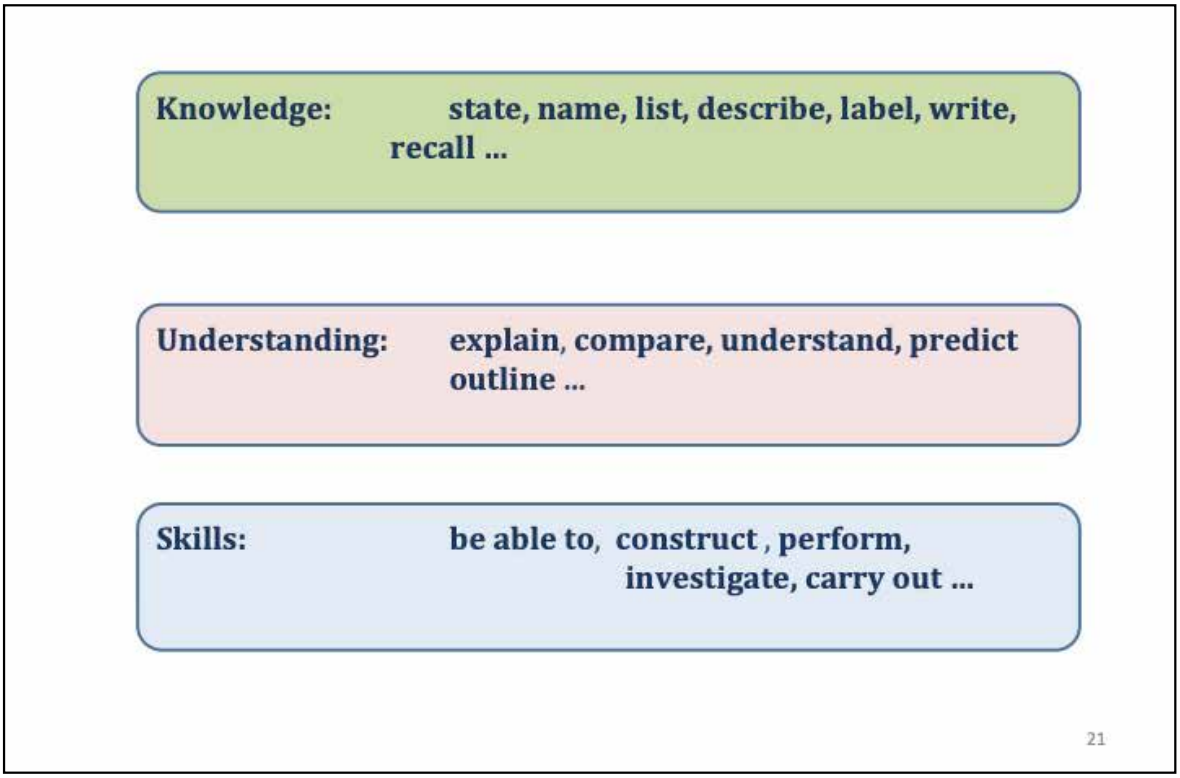
[Approaches to teaching and learning – Curriculum Framework page 19]





High quality learning experiences – success criteria for participants

A high-quality learning experience will include:

- Learner-centered activities that are interactive
- A progression of knowledge, skill and understanding
- Higher order thinking
- Activities that are well matched to the learning type

Session 1, Course 3, Module 2

Session 1

Module 2 Creating learning opportunities

Introduction to the module – learning points and objectives
- *Activity 1 Think, Puzzle, Explore (Visible Thinking Routine)*

Bloom's Taxonomy – information in Subject Overviews and Background Information
- *Activity 2 – key phrases to explain levels of Bloom's Taxonomy*
- *Activity 3 – Activities that match Bloom's Taxonomy from Subject Overviews*

Session 1 Notes:
Learning objectives for this module
- Understand the nature of learning opportunities for different forms of learning
- Understand the range of opportunities that can be created
- Create appropriate learning opportunities within the South Sudan Curriculum

Activity 1

Think, Puzzle, Explore

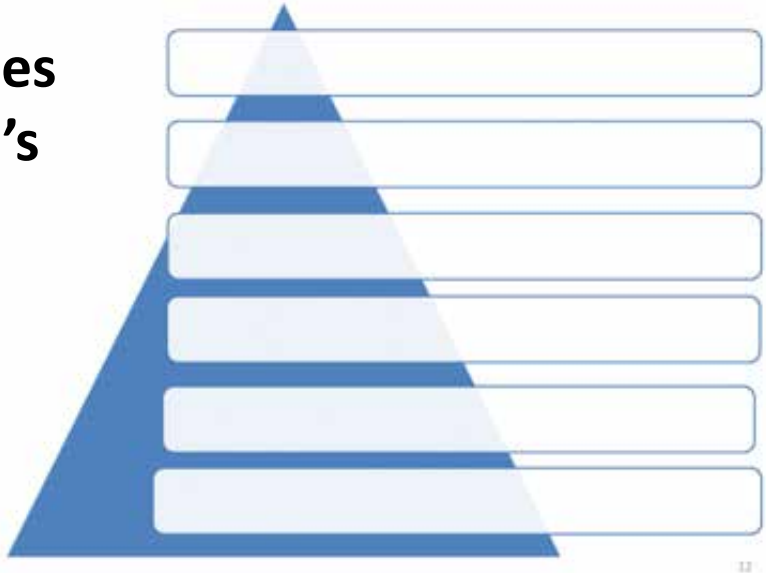
Think	Puzzle	Explore
What do you think you already know?	What questions do you have?	What would you like to explore?

After the activity – think about how you could use this thinking frame with your students.

Notes on Bloom's Taxonomy - Read the background information and look in Subject Overviews, page 6

Activity 2

Words and phrases to explain Bloom's Taxonomy

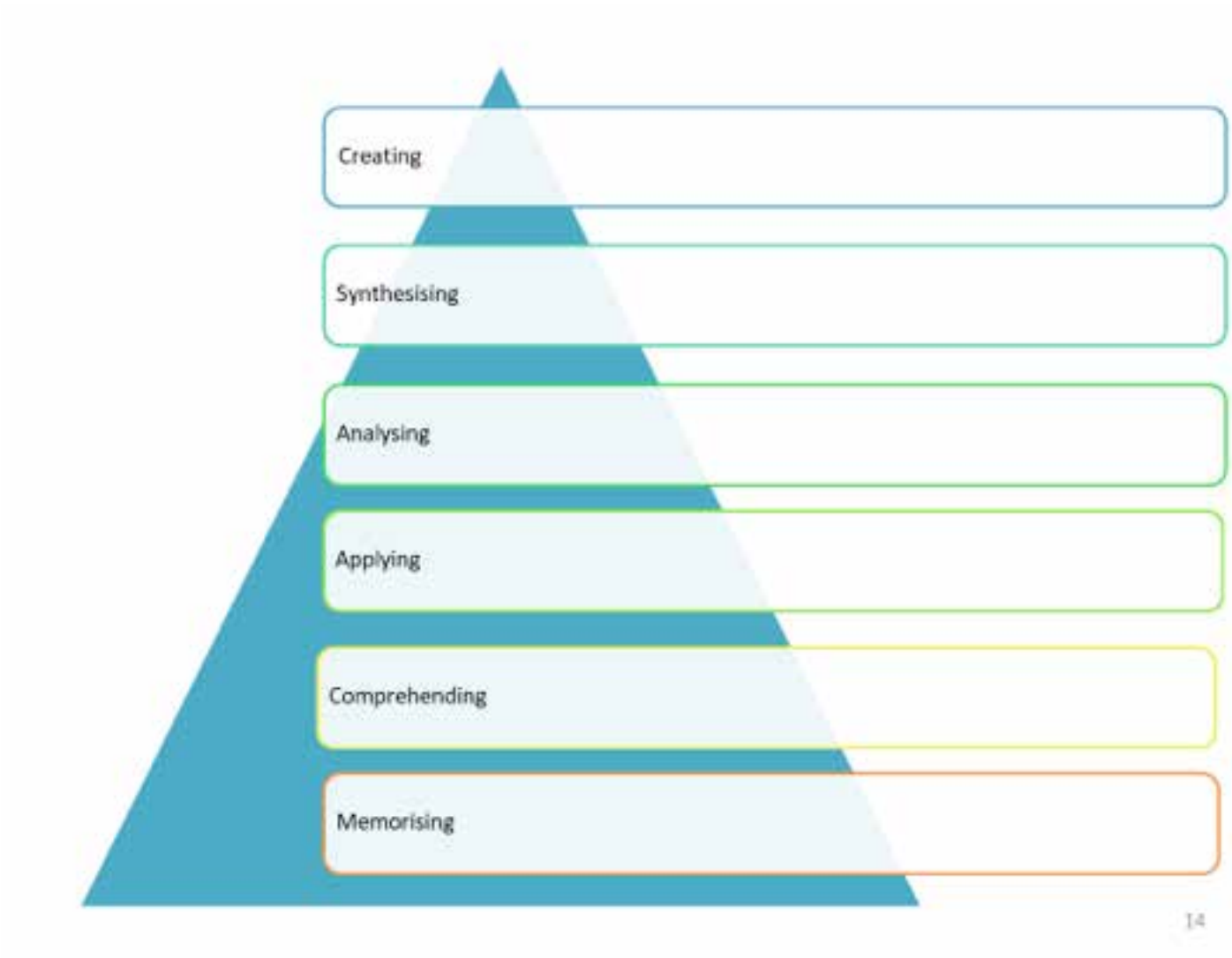


Activity 3

Look at the examples of activities related to Bloom's Taxonomy on page 6 of the Subject Overview Document

In groups, look at the 2 subject overviews and:

a) highlight where you see examples of the key verbs related to Bloom's Taxonomy.
b) select the best 3 examples of learning outcomes for each of the 6 levels in Bloom's – note them in the template below.
c) compare your 3 best examples with another group who are looking at the same subject as you.



Session 2, Course 3, Module 2

Session 2

Module 2 Creating learning opportunities

Different forms of learning
Slides to review previous learning on Knowledge, Skills and Understanding

- *Activity 4 Group presentations on Knowledge Skills and Understanding and how this relates to Bloom's Taxonomy*
- *Activity 4 success criteria on the style of the presentations*
- *Activity 5 Reflection on the activity and how well it related to the learning*

Session 1 Notes:
From your previous learning about how children learn. It is important to keep the information about approaches to teaching and learning from the Curriculum Framework in mind when planning.

Activity 4

In groups of 4, prepare a 3-minute presentation to explain Knowledge, Understanding and Skills and how this relates to Bloom's Taxonomy.

In groups of 4, prepare a 3-minute presentation to explain Knowledge, Understanding and Skills and how this relates to Bloom's Taxonomy.

Your presentation must:
- be engaging
- be memorable
- include the most important information
- be clear and succinct
- be within 3 minutes

Activity 5

Reflect on how well and why the activity was matched to the learning, ie remembering what KUS are.

Do you think making a presentation will be more memorable than just reading the documents? If so, why?

Note down your ideas.

Session 3, Course 3, Module 2

Session 3

Module 2 Creating learning opportunities

- *Activity 6 Examples of learning activities that match the different forms of learning*
- *Activity 7 Tips and hints for other teachers*

Putting Bloom's and forms of learning into planning practice

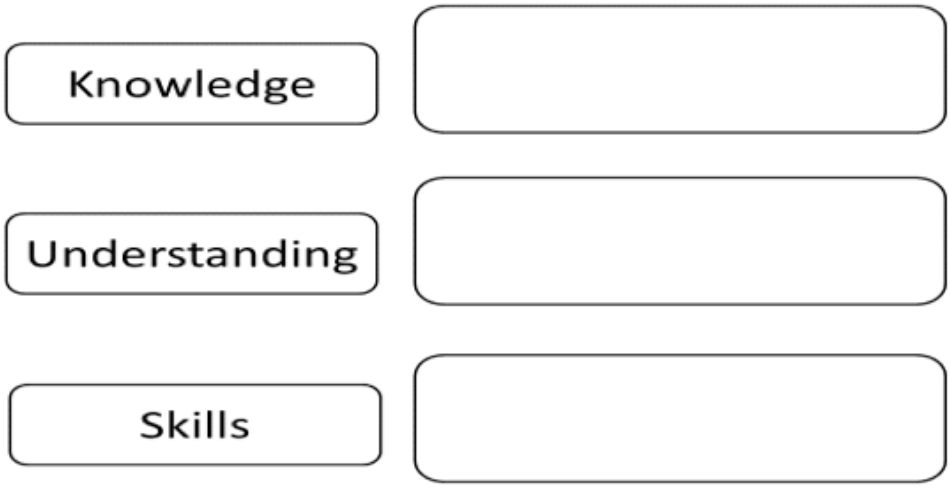
- *Activity 8 Plan a sequence of learning that combines KUS and Higher Order Thinking*
- *Using success criteria for high quality planning in this context*

Session 3 Notes:

Activity 6

In groups of 4, prepare a 3-minute presentation to explain Knowledge, Understanding and Skills and how this relates to Bloom's Taxonomy.

In groups of 4, choose examples from the subject syllabus or textbook of the subject you were allocated in activity 3. Identify good examples of learning activities for each of the forms of learning:



Activity 7

In groups of 6, write a list of 5 hints and tips you would give to a new teacher about how to plan activities that match the forms of learning.

In groups of 6, write a list of 5 hints and tips you would give to a new teacher about how to plan activities that match the forms of learning.

1. _____

2. _____

3 _____

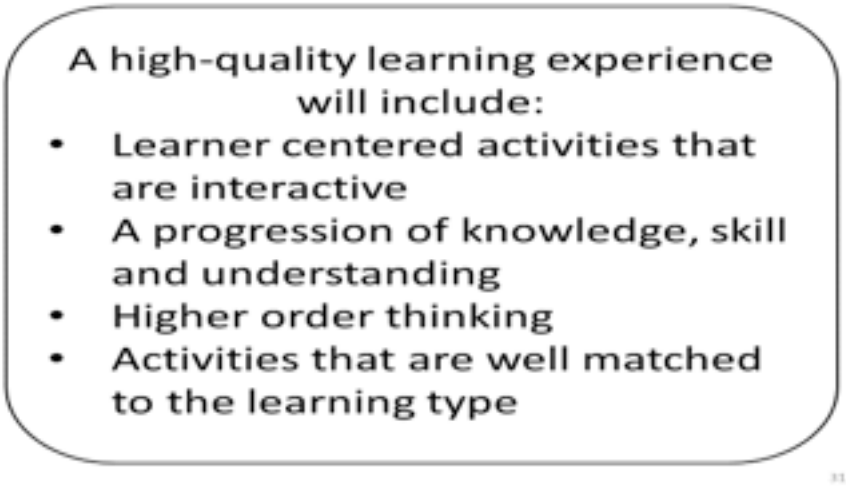
4 _____

5. _____

Activity 8

In groups, plan a sequence of experiences that include:

- Knowledge, Understanding and Skills
- Higher Order Thinking skills from Bloom's Taxonomy



Notes.

Session 4, Course 3, Module 2

Session 4
Module 2 Creating learning opportunities
Review and reflection • *Activity 9 Peer Review of planning* • *Activity 10 respond to feedback* • *Activity 11 individual reflection and notes on learning from the day*
Session 4 Notes:

Activity 9

Peer Review in your groups

Look at another group's planning.

- Highlight where they have matched the success criteria in slide 31
- Note any suggested improvements

Activity 10

Note down the feedback you received from the other group

Notes

Activity 11

- Think about what you have learned today.
- Write down anything you want to remember.

Return to your Think ,Puzzle, Explore thinking frame from the first session, and add in any new thinking or new questions.

Think	Puzzle	Explore
What do you think you already know?	What questions do you have?	What would you like to explore?

Module 3: Encouraging creativity and independence

This module explores the nature of creativity, what it means in the school context, how it can be promoted and why independence is important to learning.

Course 3: Teaching and Learning

Module 3: Encouraging creativity and independence

This module explores the nature of creativity, what it means in the school context, how it can be promoted and why independence is important to learning.

Key Points:

- Creativity is an important aim within the South Sudan Curriculum
- Creativity is one of the important competencies that young people need to learn, to help them adapt to change, and to cope with the challenges of life in the 21st Century.
- Creativity and critical thinking is one of the 4 competencies that lie at the heart of every subject and includes:
  - Planning and carrying out investigations using a range of sources to find information
  - Sorting and analysing information and coming to conclusions
  - Suggesting and developing solutions to problems, using their imagination to create new approaches
  - Evaluating different suggested solutions
- Creativity and the other competencies (communication, co-operation and culture and identify) are interwoven into all of the subjects in the South Sudan Curriculum
- Students can learn to be creative in all areas of their lives and in all subjects. It's a myth that only some people and some subjects are creative
- Being creative involves important skills such as: curiosity, problem solving, using imagination, looking for alternatives, generating and extending ideas
- Students becoming increasingly independent in their learning is a vital component of the learner-centred approach within the South Sudan Curriculum. Independent learners are able to develop important skills related to the student competencies, such as problem solving, and to develop their attitudes to lifelong learning
- The learner-centred approach is characterised by teachers providing learning experiences that enable independence, such as collaborative and open-ended activities

Resources

Curriculum Framework

ECD Curriculum and Guidance

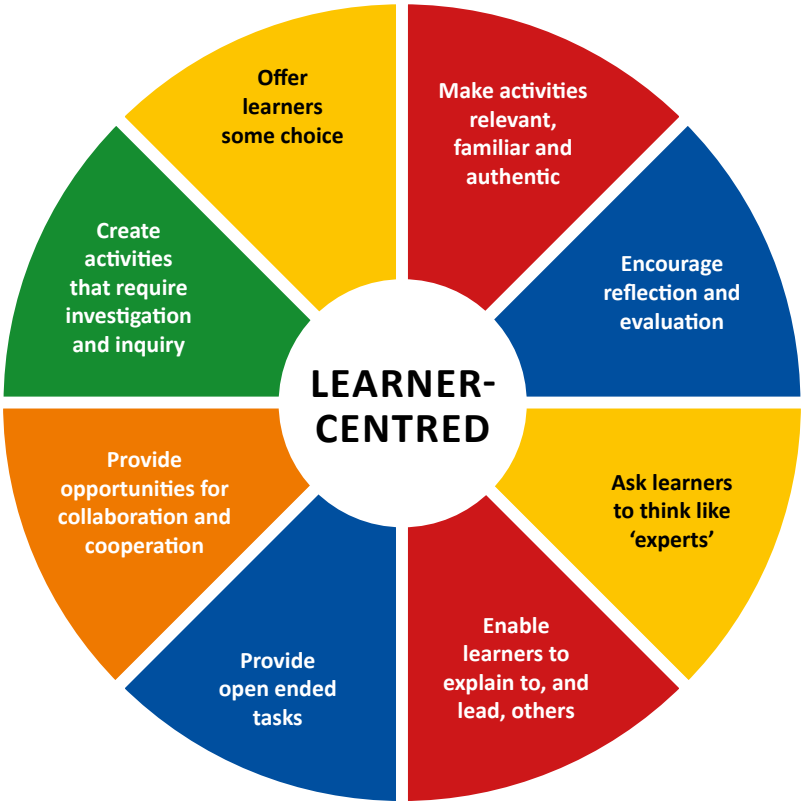
Teaching and Learning Activity Leaflet

Subject Overview

Syllabus for mathematics

Outline

Session	Content
1	Slides Introduction to the module on creativity and independence Key points about the module • *Activity 1 – 3-2-1 Visible Thinking Routine* Slides – why is creativity and independence important in SS curriculum? • *Activity 2 – The curriculum vision and aims*
2	Slides – Reminder of Bloom's Taxonomy • *Activity 3 – Creativity in the classroom* Slides – Subject Overview mathematics • *Activity 4 – Plan mathematical activities that promote creativity*
3	Slides – Philosophical approach to creativity and independence • *Activity5 – Young people as independent learners* Slides – independent learners • *Activity 6 – characteristics of independent learners* Slides – Learner-centred • *Activity 7 – Reviewing your experience of learner-centred teaching*
4	Putting it into practice • *Activity 8 – Planning activities that promote creativity and independence* • *Activity 9 – Reflection on the learning from this module*



Background information

Visible thinking routines

Harvard Graduate School Project Zero

A toolbox of routines and frames that can be used to support student learning and thinking across all age groups and all subjects. Derived from Project Zero's Visible Thinking research.

Routines you will use in this course include:

- **Think Pair Share** Think as an individual, pair with another person to share the thinking and then share with another 2 people
- **Think Puzzle Explore** What do you think you know about this topic?
  What questions or puzzles do you have? What does the topic make you want to explore?
- **Headlines** - Write a news headline or draw a picture to capture the key message in material you have read
- **3-2-1 Bridge** – write 3 words, 2 phrases and 1 metaphor to help you remember important points from a text. Then repeat this after a teaching session and look for the connection between what you thought before and after the teaching

To learn more about PZ Thinking Routines and their background, watch this video introduction and read more about PZ's initial Visible Thinking research.

Visible Thinking Routines 3- 2 -1 Bridge

When thinking about whatever concept or idea you are studying, identify:

Initial Response at the beginning of a topic

3 Words

2 Questions

1 Metaphor/Simile

NEW Response after the topic has been taught/explored

3 Words

2 Questions

1 Metaphor/Simile

BRIDGE

Identify how your new responses connect to or shifted from your initial response.

This thinking routine is used in Activity 1 - guidance on how to set up the activity:

Go through the thinking routine as a group and identify:

3 words from the key points, such as **important** or **heart** or **competency**

2 phrases such as **learner-centred** or **challenges of 21st Century life**

1 metaphor such as **creativity is a passport to the future**, or **independence is a key to effective learning**.

We will return to this thinking routine at the end of the day and do a new 3 words 2 questions and a new metaphor.

We will also then look at the bridge between the old and the new thinking.

What is creativity?

Sir Ken Robinson is a world-renowned educationalist who has led national and international projects on creative and cultural education in the UK, Europe, Asia, and the United States.

In this article he explains what he believes creativity is…

Creativity is putting your imagination to work. It is applied imagination. Innovation is putting new ideas into practice. There are various myths about creativity. One is that only special people are creative, another is that creativity is only about the arts, a third is that creativity cannot be taught, and a fourth is that it's all to do with uninhibited "self-expression."

None of these is true. Creativity draws from many powers that we all have by virtue of being human. Creativity is possible in all areas of human life, in science, the arts, mathematics, technology, cuisine, teaching, politics, business, you name it. And like many human capacities, our creative powers can be cultivated and refined. Doing that involves an increasing mastery of skills, knowledge, and ideas.

Creativity is about fresh thinking. It doesn't have to be new to the whole of humanity— though that's always a bonus— but certainly to the person whose work it is. Creativity also involves making critical

judgments about whether what you're working on is any good, be it a theorem, a design, or a poem. Creative work often passes through typical phases. Sometimes what you end up with is not what you had in mind when you started. It's a dynamic process that often involves making new connections, crossing disciplines, and using metaphors and analogies. Being creative is not just about having off-the-wall ideas and letting your imagination run free. It may involve all of that, but it also involves refining, testing, and focusing what you're doing. It's about original thinking on the part of the individual, and it's also about judging critically whether the work in process is taking the right shape and is worthwhile, at least for the person producing it.

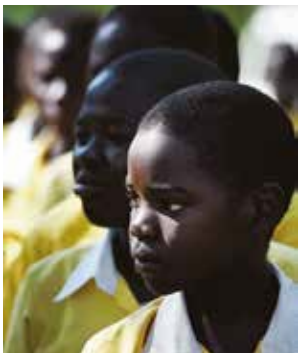
Creativity is not the opposite of discipline and control. On the contrary, creativity in any field may involve deep factual knowledge and high levels of practical skill. Cultivating creativity is one of the most interesting challenges for any teacher. It involves understanding the real dynamics of creative work.

Creativity is not a linear process in which you have to learn all the necessary skills before you get started.

It is true that creative work in any field involves a growing mastery of skills and concepts. It is not true that they have to be mastered before the creative work can begin. Focusing on skills in isolation can kill interest in any discipline. Many people have been put off mathematics for life by endless rote tasks that did nothing to inspire them with the beauty of numbers. Many have spent years grudgingly practising scales for music examinations only to abandon the instrument altogether once they've made the grade. The real driver of creativity is an appetite for discovery and a passion for the work itself. When students are motivated to learn, they naturally acquire the skills they need to get the work done. Their mastery of them grows as their creative ambitions expand. You'll find evidence of this process in great teaching in every discipline from football to chemistry.

From Creative Schools by Ken Robinson and Lou Aronica, published April 21, 2015, by Viking, an imprint of Penguin Publishing Group, a division of Penguin Random House LLC, 2015.

The Vision



A new country needs a new curriculum. In setting out this curriculum for our young people, we set out our ambitions for the nation; for peace and prosperity, for growth and

development, for harmony and for justice. The education of young people of South Sudan should be firmly rooted in their rich culture and heritage and to enable them to grow into true citizens of the world.

For all countries, the 21st Century is a time of rapid technological growth and social change, and the school curriculum must ensure that young people are well prepared to meet both its challenges and its opportunities. The curriculum has to prepare young people not just for to-day, but for the changing life ahead.

It is no longer possible to learn enough at school to last a lifetime. The pace of change is too rapid. Young people need to grow in confidence to face the challenges ahead of them,

and they need to develop a love of learning so that they can become successful life-long learners and continue to operate effectively in a rapidly changing knowledge economy.

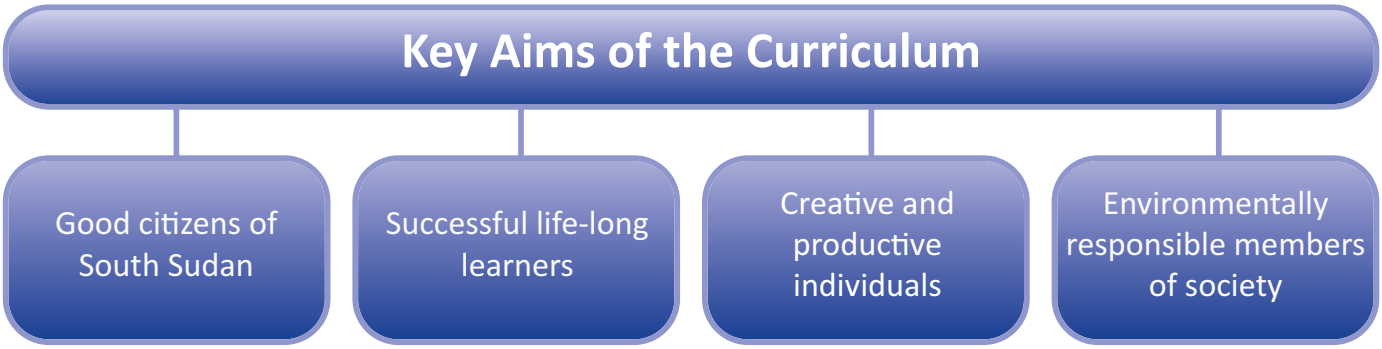
To achieve the ambitions of the country, we need a vibrant and dynamic curriculum; a curriculum that will provide challenge to all learners; a curriculum that can stimulate and inspire; an inclusive curriculum that provides for all learners, whatever their needs, background or ambitions; a curriculum that excites imaginations, raises aspirations and widens horizons.

A curriculum that will allow our new nation to develop in prosperity and harmony, and which will prepare our young people for the 21st Century.

The vision for the SS Curriculum page 4 of the Curriculum Framework

The Key Aims

This vision provides the key aims for the curriculum. These define what the nation wants its young people to be by the time they leave education.



These four key aims will underpin all learning in the curriculum and provide its purpose and direction.

Good citizens of South Sudan

Good citizens of South Sudan who are:

- Patriotic and proud of their rich culture and heritage
- Active participants in society for the good of themselves and others
- Committed to unity, democracy, human rights, gender equity, peace and reconciliation
- Ready to take their place as global citizens, proud of South Sudan's role and position in the world.

Successful life-long learners

Successful life-long learners who are:

- Literate, numerate and keen to learn
- Able to learn independently and with others
- Proficient in the key competencies
- Committed to life-long learning

Creative and productive individuals

Creative, confident and productive individuals who are:

- Enterprising and creative problem-solvers
- Willing to exert the effort that is necessary to success
- Able to relate well to others, and understand others' concerns and needs
- Diligent, resilient and persistent in their attitude to work

Environmentally responsible members of society

Environmentally responsible members of society who are:

- Committed to sustainable forms of development
- Aware of the fragility of the environment, and the importance of environmental sustainability to life and prosperity
- Appreciative of the need for everyone to work together to preserve the environment for the common good and for future generations

These aims form the four key themes of the curriculum: citizenship, literacy and numeracy, enterprise and the environment.

The Philosophical Approach

To achieve these aims, we need a curriculum that is based on an active, constructivist approach to learning. Because the aims encompass more than the memorization of information, so learners must engage actively in their own learning, and cannot be passive recipients of knowledge. Learning will need to move beyond textbooks and teacher-directed lessons to the active engagement of learners in their own learning. If young people are to become lifelong learners, then they need to develop a love of learning as well as the skills and confidence to carry on learning by themselves. Therefore, independence within learning will need to be an important feature of the curriculum. If they are to appreciate their culture and heritage and become environmentally aware members of society, then learning will need to be practical and relate directly to learners' own lives.

6

WHAT ARE CREATIVITY SKILLS?

Curiosity

Learners are constructively inquisitive and can demonstrate this by

- Being curious
- Registering patterns and anomalies
- Making use of previous knowledge
- Researching productively
- Formulating good questions

Open-Mindedness

Learners are open to new ideas and can demonstrate this by

- Using lateral thinking
- Using divergent thinking
- Hypothesising
- Exploring multiple viewpoints
- Being flexible, adaptable and functioning well with uncertainty

Imagination

Learners are able to harness their imagination and can demonstrate this by

- Exploring, synthesising and refining multiple options
- Generating and refining ideas
- Inventing

Problem Solving

Learners are able to identify and solve problems and can demonstrate this by

- Understanding and defining problems
- Crafting, delivering and presenting solutions
- Demonstrating initiative, discipline, persistence and resilience
- Evaluating impact and success of solutions

Creative Learners will be

- Motivated and ambitious for change for the better, including their own capabilities
- Confident in the validity of their own viewpoint
- Able to apply a creative process to other situations
- Able to lead and work well with others

What does it mean to have independence in learning?

Reference Education Endowment Foundation Metacognition and self-regulation. Teachers should explicitly support pupils to develop independent learning skills. Carefully guided practice with support gradually withdrawn as the pupil becomes proficient can allow pupils to develop skills and strategies before applying them in independent practice.

Pupils will need timely, effective feedback and strategies to be able to judge accurately how effectively they are learning.

There are different characteristics of independent behaviours: emotional, social, cognitive, and motivational.

1. Emotional

- Can speak about their own and others' behaviour and consequences
- Can tackle new tasks confidently
- Can control attention and resist distraction

2. Social

- Negotiates when and how to carry out tasks
- Can resolve social problems with peers
- Is aware of feelings of others and helps and comforts
- Engages in independent cooperative activities with peers
- Shares and takes turns independently

3. Cognitive

- Is aware of own strengths and weaknesses
- Can speak about how they have done something and what they have learned
- Can speak about planned activities
- Can make reasoned choices and decisions
- Asks questions and suggests answers

4. Motivation

- Initiates activities
- Finds own resources without adult help
- Develops own ways of carrying out tasks
- Plans own tasks, targets and goals
- Enjoys solving problems

Some starting points for independent learning

- Independent learning can be thought of as the ability to take charge of your own learning
- It is rooted in effective questioning and dialogue – the teacher as a coach is important
- The ability to make informed choices and take responsibility for your own learning activities with planning, support and guidance from teachers
- It represents a shift in responsibility for learning from the teacher to the student. This shift has to be gradual, with scaffolding in place to support each learner
- Independence in learning can be achieved at any age – the youngest children can make choices, sustain interest and self-motivation
- Independence should help the student to know when they need support and when they can work alone

What independence in learning is not:

- It does not mean working on your own without guidance or supervision
- It does not mean less teacher guidance – but instead, specific guidance with the end goal of having the student become independent
- It is not limited to older children or determined by ability

Introduction

A Broader Structure

These Subject Overviews are part of the broader structure of the new curriculum. The new curriculum sets out key aims that define what the nation wants for its young people; that they should become:

- Good citizens of South Sudan
- Successful life-long learners
- Creative and productive individuals
- Environmentally responsible members of society

The new curriculum also puts the subjects of the curriculum into a broader context of values, principles, student competencies and the rich culture and heritage of South Sudan. It is set out in three key documents:

The Curriculum Framework sets out the key aims this broader context of the curriculum and gives guidance on how it is to be implemented in schools.

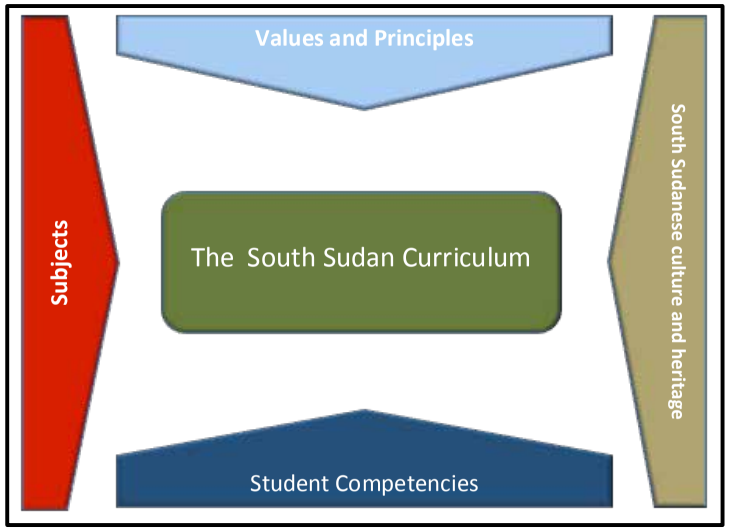
The Subject Overviews set out the key learning expected for each subject, year by year.

These Syllabus Units give the detail that supplements the overall learning expectations that are set out in the 'Subject Overviews'

The Framework of the curriculum

To face the challenges of the 21st Century, young people need to be knowledgeable and have a good understanding of the key subject areas. They also need to possess the skills and the attitudes to make good use of that knowledge and to apply it in the service of the community. The subject knowledge together with the skills and attitudes forms the competencies that will equip learners to become global citizens in the 21st Century.

Citizens of South Sudan also need a clear sense of identity and an understanding and appreciation of the rich culture and heritage of their own country. The curriculum is therefore an association of subjects and competencies, driven by aims, values and principles, and located with the rich culture and heritage of South Sudan. This is reflected in the Subject Overviews.



What are "Subject Overviews"?

The Subject Overviews for Primary 1 to Secondary 4 set out the key learning expected for each of the curriculum subjects be the end of every year. For each subject, the Subject Overview sets out:

- The rationale for the subject
  - The purpose and scope of the subject
- The subject within the broader Framework
  - How the subject fits within the overall Curriculum Framework, and in particular how it contributes to the four Student Competences
- The teaching and learning of the subject
  - Key approaches to teaching and learning that are needed to meet the aims of the new curriculum

The Subject Overview also shows how the subject is organized. This is usually in terms of "strands" which are the component parts of the subject. For example, English is divided into the four strands of: Listening, Speaking, Reading and Writing.

The Overview sets out the key purpose of each strand.

The final section of each Subject Overview sets out the expected learning outcomes by the end of the year for each of these strands. They should therefore be used as the basis for any end-of-year assessments.

These learning outcomes are the basis for the more detailed Syllabus Units and for the textbooks.

Expected Learning Outcomes

The expected learning outcomes comprise three main forms of learning:

- Knowledge: the memorizing of information
- Understanding: putting knowledge into a framework of meaning
- Skills: the ability apply one's knowledge and understanding; to perform a mental or physical process

For example:

- Knowledge: remembering that Paris is the capital of France
- Understanding: understanding why Washington and not New York is the capital of the USA
- Skill: being able to find out (eg from a book, map or the internet) what is the capital of Mongolia.

So it is important to look at the expected learning outcomes in these terms. We must ask ourselves, does this require knowledge, skills or understanding.

For example, in Primary 1 Science, learners are expected to:

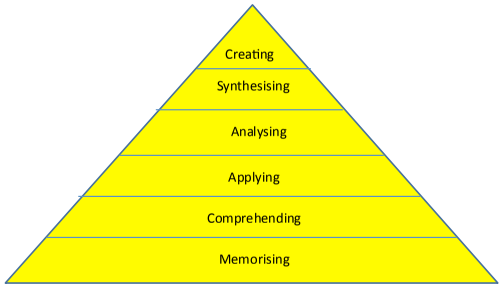
- "Know basic weather conditions.." *(Knowledge)*
- "Understand the use of simple machines .." *(Understanding)*
- "Investigate which objects sink .." *(Skill)*

When using these Subject Overviews for planning teaching or for assessment, it is essential to look closely at the expected learning outcomes and distinguish between knowledge, skills and understanding. Each is taught and assessed differently. The "School Based Assessment Guidance" gives more help with this.
The new curriculum takes the skills one stage further, and has been

Characteristics of independent learners include:

1. **Curiosity** – Independent learners want to find out more about the world. They seek out ways to explore. They learn from various angles and formats, not just traditional instruction. They are proactive and find ways to access additional lesson supplements on their own.
2. **Self-motivation** – Intrinsic motivation far surpasses any prize or reward system. Independent learners are motivated by setting internal goals to achieve. They are driven by their own personal achievement.
3. **Self-examination** – Where have you been and where are you going? Independent learners know how to evaluate themselves. They can see their strengths and weaknesses. They strive for measurable progress and often chart their accomplishments and failures.
4. **Accountability** – Responsibility means knowing what you have to do and doing it without anyone telling you to. The sooner a student becomes responsible for consequences, the less dependent he will be on outside sources for discipline or motivation.
5. **Critical thinking** – Independent learners think critically about a situation. They examine all possibilities and often come up with multiple solutions. They don't just memorise. Rather, they ask "why?" and formulate answers based on real-world observation and intelligent deduction.
6. **Comprehension with little or no instruction** – Independent learners have an uncanny ability to read, visualise, or kinesthetically instruct themselves. No matter the topic or subject studied, an independent learner will find ways to understand material through application (generally trial-and-error).
7. **Persistence** – Independent learners don't give up. They strive to understand a concept as much as possible on their own before asking for help. They also apply self-discipline in not finding the easy answer to a problem. They teach themselves and generally only ask questions after failure to find a solution on their own.

Skills'. These are illustrated in Bloom's Taxonomy which divides learning into six ascending levels. The lowest level is memorizing (which refers to knowledge) and the second is comprehending (which refers to understanding). To reach the higher levels, learners have to use a 'higher order thinking skill' to apply their learning in some way. This is illustrated in the diagram below:



Bloom's Taxonomy

It will be helpful to bear this in mind when using the Subject Overviews. The Higher Order Thinking Skills have been built into the expected learning outcomes. For example:

P3 Science: *"Investigate air pressure .."* (apply)

P3 Social Studies: *"Compare.. to a contrasting location"* (analyse)

S1 History: *"Analyse pre-colonial trade ..."* (analyse)

S2 Citizenship: *"develop informed arguments .."* (synthesise)

P5 English: *"communicate ideas creatively ..."* (create)

Integrated Subjects

At the Primary School levels, ICT and TVET have been integrated into the subjects: These will be learned in the context of other subjects rather than as separate subjects. There are separate programmes for these (set out in Section 4) so that progress can be checked, but the elements are already in the expected learning outcomes and so do need to be added.

The separate programme for ICT will be helpful to schools that have no equipment at the moment. These schools will be able use these to run 'stand alone' catch-up programmes when they have the resources.

Cross-cutting issues

The are elements of learning that fall across all the subjects:

- Peace Education
- Life Skills
- Environment and Sustainability

Like the integrated subjects, there are separate programmes (set out in Section 5) but all these elements have already been built into the subjects, so they do not need to be added.

Early Childhood Development Curriculum (ECD)

The ECD Curriculum takes account of the early stage of development of children of this age when it is not appropriate to study the same subjects as older children in school. The seven ECD Areas of Learning are seen as activities, because learning needs to be active at this stage. The seven activities cover all the key elements of early childhood development and prepare young children to start school in P1.

	P1	P2	P3
Number	Sorting, matching and arranging groups of objects Counting, reading and writing numbers from 0-99 Even and odd numbers Addition of whole numbers up to 2 digits Subtraction of whole numbers up to 2 digits Ordinal numbers 1st , 2nd up to 10th	Read, write, compare and order numbers up to 3 digits Rounding off numbers to the nearest tens and hundreds Addition involving one carrying Subtraction without borrowing. Recall multiplication facts up to 10x10 Know division facts for- numbers up 100 by numbers not exceeding 10 Fractions (half and quarter as a part of a whole)	Read, write, compare and order numbers up to 4 digits Subtraction with and without borrowing Divisibility test (by 2, 5 and 10) Fractions (simple) Comparing simple equivalent fractions
Measurement	Estimate and compare length, capacity and weights Solving simple problems involving money Time of the day & days of the week Days of the week and month of the year Reading clock in hours	Estimating and measuring length using different objects and capacity using different containers Comparison of weight using beam balance Recognizing currency in shopping (correct balance) and activities Time in hours, half past, quarter past, quarter to the hour	Estimating and measuring length in centimeters, meters; capacity in liters, milliliters and deciliters; weight in kgs and grams Operations involving length, capacity and weight Converting hours to minutes, seconds and vice-versa Operations on currencies

Session 1, Course 3, Module 3

Session 1

Module 3 Encouraging creativity and independence

This module will explore the nature of creativity, how it can be promoted and why independence is important to learning.
The learning outcomes for the session:

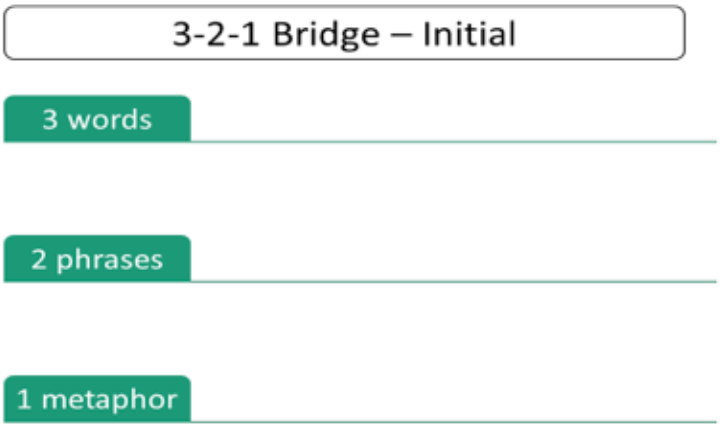
- *Understand what is meant by creativity in the school context*
- *Design learning activities that promote creativity*
- *Understand why it is important for learners to have independence in their learning and why the South Sudan Curriculum Framework requires this*
- *Design learning activities that promote independent learning*

Session 1: Note down the important points you want to remember

Activity 1

Thinking Routine 3-2-1 to reflect on the key points about creativity and independence

Read through the key points about this module
Use the 3-2-1 Thinking Routine to record and then share your thinking.

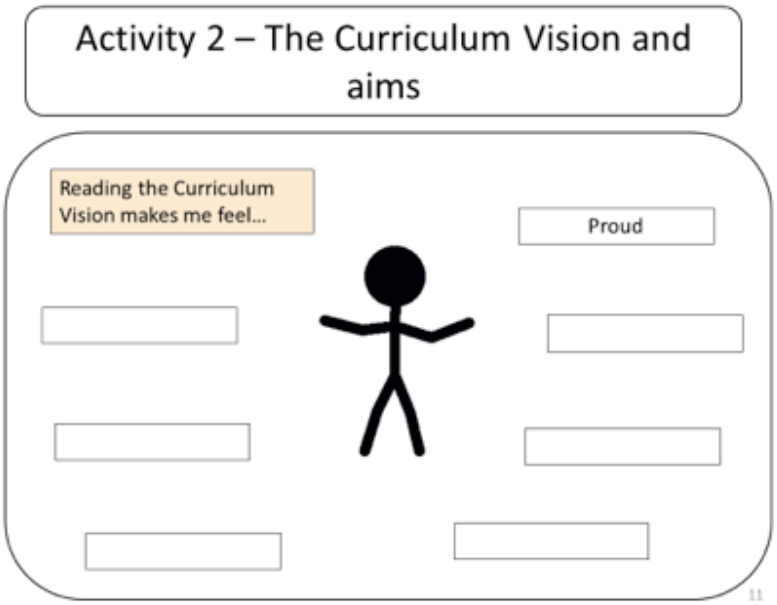


Creativity and independence – why are they important in the South Sudan Curriculum?

- Read the vision and aims of the South Sudan Curriculum

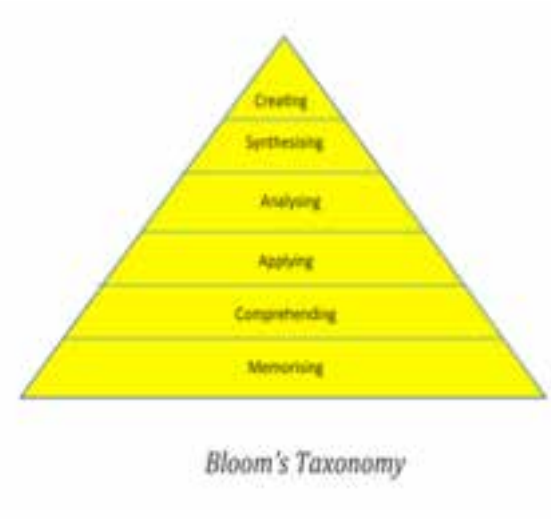
Activity 2

How does being a teacher in South Sudan make you feel?



Session 2, Course 3, Module 3

Session 2
Module 3 Encouraging creativity and independence
What is creativity?
Session 2 notes Remind yourself about Bloom's Taxonomy from module 2

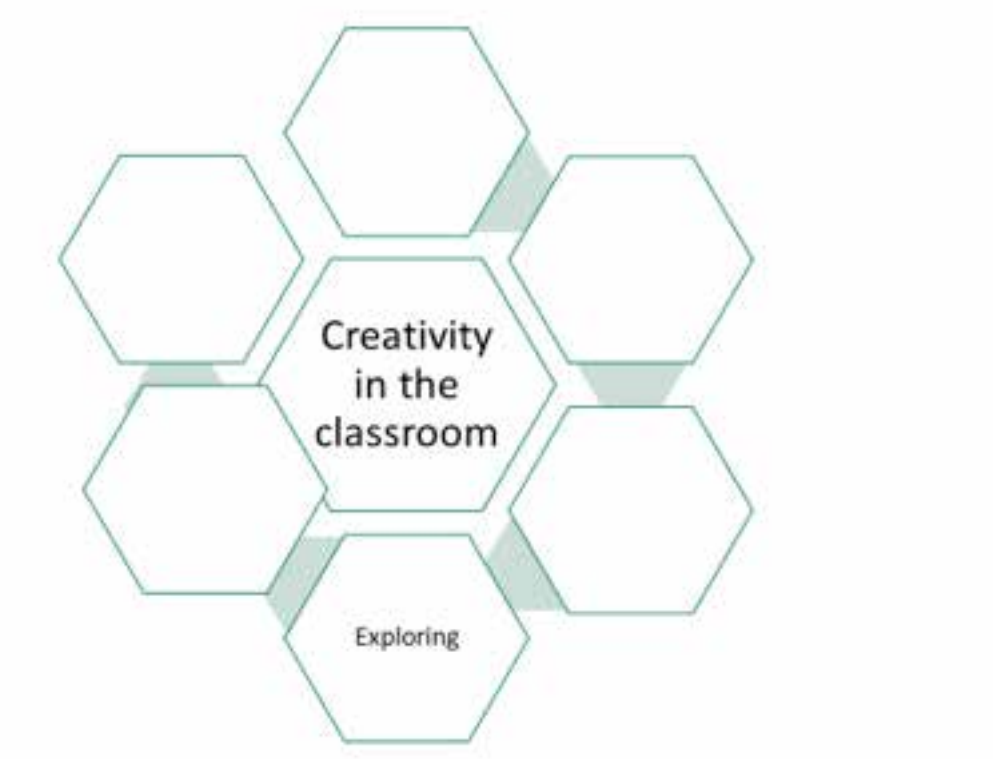


Bloom's Taxonomy

Activity 3

What is creativity in the classroom?

Read the background information and highlight key points.
Write down your ideas of what creativity is in the classroom.
Compare your list with another group.



Activity 4

Planning activities that promote creativity

Top 5	Activity	How does it promote creativity?
1		
2		
3		
4		
5		

Session 3, Course 3, Module 3

Session 3
Module 3 Encouraging creativity and independence
The importance of learner independence
Session 3 notes

Activity 5

This quote is from the Philosophical Approach on page 6 of the Curriculum Framework.

Finish the sentence by creating a list of key words.

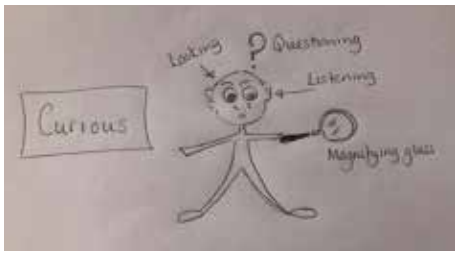
If young people are to become lifelong learners, they need to be…

Activity 6

Look in the background information about the characteristics of independent learners.

In groups, do a drawing for each characteristic to illustrate each one.
Add key words but no phrases or sentences! It's not about the drawing skill! – the important thing is about representing the characteristic.

For example:



Activity 7

Learner-centred

Reflect back on your teaching so far.
Think about how much you have enabled each of the segments of the learner-centred wheel.

Not yet — All of the time

Which ones have you done well with? Which ones do you need to develop?

Choose 3 that you will work on improving over the next few weeks.

1. _____

2. _____

3. _____

Session 4, Course 3, Module 3

Session 4
Module 3 Encouraging creativity and independence
Putting it into practice
Session 4 notes

Activity 8

Using your top 5 activities from activity 4

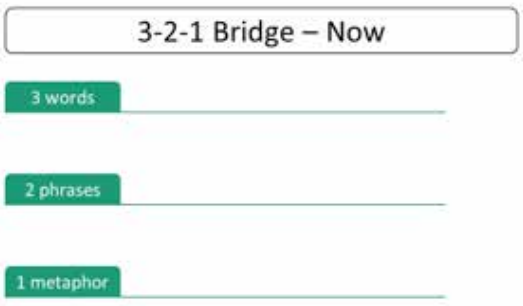
Plan a sequence of learning in detail.
Make a note of the creative and independent behaviors you hope to see in your students.

Creative behaviours	Independent behaviours
1	1
2	2
3	3
4	4
5	5

Activity 9

Reflection

3-2-1 Bridge Thinking Routine
Go back to the 3-2-1 activity from this morning.
Create a new 3-2-1 now that you have learned more about creativity and independence.
Think about the connection or bridge between what you think now and what you thought earlier.



Reflection on your learning from today. What have you learned?

Notes on the important things you want to remember.

Module 4: Questioning

This module explores the importance of questioning in promoting learning. This involves the questions that the teacher asks learners, and also the questions that learners should be encouraged to ask themselves.

Course 3: Teaching and Learning

Module 4: Questioning

This module will explore the importance of questioning in promoting learning, and how questions can be asked by teachers and by learners.

Key Points:

- There are different types and levels of questions
- Higher-order questions promote higher-order thinking
- Teachers should plan a range of questions to match the learning need
- Effective questioning is an essential part of effective teaching
- Most of the questions asked by teachers are lower order and closed, with only 20–30 per cent leading pupils to explain, clarify, expand, generalise or infer
- Balance - Students should be asking questions of teachers, themselves and peers as much as teachers ask students questions
- Students' responses are just as important as the questions they are asked! Teachers have to be ready to follow up and explore the response, not just always move on
- Strategies to deepen the students' responses are essential to challenge learners, such as – 'Tell me why you think that'
- Routines in classrooms can be set to develop dialogue by students – such as no hands up to answer questions (only to ask questions)
- Learning activities and experiences should be designed to promote dialogue and questioning between students

Outline

Session	Content
1	• *Activity 1 – what questions have you asked today?* Slides to introduce the module Key points about questioning • *Activity 2 –Headlines about questioning Slides - Vygotsky* • *Activity 3 – Types of questions starting with why, what, how, when, etc*
2	Slides – Open and closed questions • *Activity 4 – generate open and closed questions* Slides relating questions to knowledge, understanding, and skills • *Activity 5–generating questions related to learning types* Slides – higher-order questions related to Bloom's Taxonomy
3	Higher-order questions continued *Activity 6 – Handa's Surprise – higher-order questions* Slides – students asking questions *Activity 7 alternatives to questions to promote dialogue*
4	Review and reflect on the learning from the day • *Activity 8 – Top tips and hints on questioning, identify theories in syllabus units* • *Activity 9 – individual and paired reflection*

Resources

Curriculum Framework

ECD Curriculum and Guidance

SS secondary teacher training leaflet

Background information

The purposes of questioning

Teachers ask questions for a number of reasons, the most common of which are:

- to interest, engage and challenge students
- to check on prior knowledge and understanding
- to stimulate recall, mobilise existing knowledge and experience in order to create new understanding and meaning
- to focus pupils' thinking on key concepts and issues
- to help pupils to extend their thinking from the concrete and factual to the analytical and evaluative
- to lead pupils through a planned sequence which progressively establishes key understandings
- to promote reasoning, problem solving, evaluation and the formulation of hypotheses
- to promote pupils' thinking about the way they have learned

Types of questions

There are two main types of questions that are used in the classroom: closed questions and open questions.

Closed Questions are those that prompt a simple response, such as yes, no, or a short answer. Examples include:

- Are you feeling better today?
- Does 6 plus 7 equal 13?
- Is Juba the capital city of South Sudan?
- What is the periodic symbol for potassium?
- Who is Salva Kiir Mayardit?

There are many advantages to closed questions. They're quick and easy to respond to and generally reduce confusion. They're also particularly useful for challenging pupils' memory and recalling facts.

There are, however, also a number of disadvantages to using closed questions. Students may start to try and guess what you're thinking and give an answer based on that. They may also become anxious that they're going to get the answer wrong, which reduces their willingness to answer. Closed questions **limit the child's opportunity to expand** on an answer and provide reasoning or opinion.

Open Questions

Open questions, on the other hand, are those that require a deeper level of thinking and often prompt a lengthier response. They ask students to think and reflect, provide opinions and feelings, and take control of the conversation. Examples of some open questions include:

- What did you think of the ending of the story?
- What message was our President giving in his speech yesterday?
- How did you interpret the end of the film?
- Explain the importance of gender equality.
- Describe the role of insulin in the body.

Open questions are advantageous because they **enrich the learning experience** by encouraging individual thinking. They also give you, as a teacher, the opportunity to check your pupils' understanding and knowledge, and assess their ability to apply this knowledge.

What is effective questioning?

Questioning is effective when it allows pupils to engage with the learning process by actively composing responses. Research (Borich 1996; Muijs and Reynolds 2001; Morgan and Saxton 1994; Wragg and Brown 2001) suggests that lessons where questioning is effective are likely to have the following characteristics:

- Questions are planned and closely linked to the objectives of the lesson.
- The learning of basic skills is enhanced by frequent questions following the exposition of new content that has been broken down into small steps. Each step should be followed by guided practice that provides opportunities for pupils to consolidate what they have learned and that allows teachers to check understanding.
- Closed questions are used to check factual understanding and recall.
- Open questions predominate.

- Sequences of questions are planned so that the cognitive level increases as the questions go on. This ensures that pupils are led to answer questions which demand increasingly higher-order thinking skills but are supported on the way by questions which require less sophisticated thinking skills.
- Pupils have opportunities to ask their own questions and seek their own answers. They are encouraged to provide feedback to each other.
- The classroom climate is one where pupils feel secure enough to take risks, be tentative and make mistakes.

The research emphasises the importance of using open, higher-level questions to develop pupils' higher-order thinking skills. Clearly there needs to be a balance between open and closed questions, depending on the topic and objectives for the lesson. A closed question, such as 'What is the next number in the sequence?' can be extended by a follow-up question such as 'How did you work that out?'

Overall, the research shows that effective teachers use a greater number of higher- order questions and open questions than less effective teachers. However, the research also demonstrates that most of the questions asked by both effective and less effective teachers are lower order and closed. It is estimated that 70–80 per cent of all learning-focused questions require a simple factual response, whereas only 20–30 per cent lead pupils to explain, clarify, expand, generalise or infer. In other words, only a minority of questions demand that pupils use higher-order thinking skills.

Benefits of Effective Questioning

Using effective questioning in your classroom brings a host of benefits, as it:

- encourages students to engage with their work and each other.
- helps students to think out loud.
- facilitates learning through active discussion.
- empowers students to feel confident about their ideas.
- improves speaking and listening skills.
- builds critical thinking skills.
- teaches respect for other people's opinions.
- helps students to clarify their understanding.
- motivates students and develops an interest in a topic.
- allows teachers to check students' understanding.

Bloom's Taxonomy and higher-order questions

There are six levels in the framework, with a few examples of the questions that you would ask for each component.

- **Memorising:** In this level, students are asked questions to see if they have gained insight from the lesson. (What is... Where is... How would you describe?)
- **Comprehension:** During this level, students will be asked to interpret facts that they learned. (What is the main idea... How would you summarise?)
- **Application:** Questions asked during this level are meant to have students apply or use the knowledge learned during the lesson. (How would you use... How would you solve it?)
- **Analysis:** In the analysis level, students will be required to go beyond knowledge and see if they can analyse a problem. (What is the theme... How would you classify?)
- **Synthesis:** During the synthesis level of questioning, students are expected to come up with a theory about what they learned or use predictions. (What would happen if... What facts can you compile?)
- **Evaluation:** The top level of Bloom's Taxonomy is called evaluation. This is where students are expected to assess the information learned and come to a conclusion about it. (What is your opinion of...how would you evaluate... How would you select... What data was used?)

Bloom's Taxonomy questions

Competence	Skills Demonstrated			*Question Cues:*
Knowledge	• Observation and recall of information • Knowledge of dates, events, places/major ideas • Mastery of subject matter • Factual recall			list, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, who, when, where, etc
Knowledge Question stems:	Tell me about …? Can you list …? How many …?	Where did …? Who are the …? Who said …?	When did …? Who wrote …? When was …?	What date did …? What is …? Where can you find …?
Comprehension (understanding)	• Understanding information and grasp meaning • Translate knowledge into new context • Interpret facts, compare, contrast, order, group, infer causes and predict likely consequences • Suggest connections			summarise, describe, extend, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend.
Comprehension Question stems:	Can you list the sequence …? What happened after …? How do you know …?		Who can explain …? What is the difference between …? How would you describe …?	
Application	• Use information • Use methods, concepts, theories in new situations • Solve problems using required skills or Knowledge • Visualise actions in a real life/applied situation			apply, demonstrate, change, calculate, complete, classify, illustrate, show, solve, test, examine, modify, relate, do, make, construct, discover, manufacture, make.
Application Question stems:	How could this have happened in…? What factors would you change if …? How would you react when …?		What would you do if …? What questions would you ask if …? What would you need if …?	
Analysis	• Seeing patterns & organization of parts • Recognition of hidden meanings • Identification of components • systematically consider data sets			analyse, separate, order, explain, connect, classify, arrange, divide, compare, probe, explain, deduct, infer.
Analysis Question stems:	How was this similar / different to …? What was the problem with …? What evidence proves …?		Why did … precede/follow …? What are some of the motives behind …? Do you think that …?	
Synthesis	• Use old ideas to create new ones • Generalize from given facts • Relate knowledge from several areas • Predict and draw conclusions • Redefine what is known • Reconceptualise for new situations			combine, integrate, modify, re-arrange, substitute, plan, create, design, invent, what if?, speculate, compose, formulate, prepare, rewrite, generalise, propose, model.
Synthesis Question stems:	How would you design … for …? What would happen if …?		What if we found out that …? Could you see a possible solution to …?	
Evaluation	• Compare and discriminate between ideas • Assess value of theories, presentations • Make choices based on reasoned argument • Verify value of evidence • Recognise subjectivity • Balancing evidence using criteria			assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, appraise, summarise.
Evaluation Question stems:	Do you believe …? How would you choose/assess …? What would you judge …?		Do you think … is a good or bad thing? How effective is/are …? On balance, what is the argument for…?	
Creativity	• Applies all of the previous categories to inform thinking and actions • Identifies and solves problems • Thinks independently and in new ways, able to originate and innovate • Collaborate as part of a team or be independent • Can empathise and shift perspective as needed			design, imagine, conceive, innovate, hypothesise, investigate, produce, invent, experiment, craft, fashion, generate, inspire, excite, compose, vision, wrought,
Creativity Question stems:	How would you respond to …? How could you collaborate to …?		Can you imagine how …? If you had to find a new way to …?	

Adapted from: Bloom, B.S. (Ed.) (1956) Taxonomy of educational objectives:
The classification of educational goals: Handbook I, cognitive domain. New York; Toronto: Longmans, Green.

Guiding learning through dialogue

'The dialogue between pupils and teacher should be thoughtful, reflective, focused to evoke and explore understanding, and conducted so that all pupils have the opportunity to think and express their ideas.'

Paul Black and Dylan Wiliam (1998) Inside the black box

A common pitfall in group discussion is where one pupil dominates or some are reticent and unwilling to contribute. You can overcome this by doing the following:

- Having a 'no hands-up' strategy. Tell the pupils not to volunteer answers because you will ask them by name. This ensures that everyone becomes involved and pupils tend to concentrate better when they think they may be asked a question at any moment! I want you to think about this for a moment, then discuss it with your partner. In two minutes, I'm going to ask for your answer
- Allowing 'wait time' so that pupils have a chance to think things through before they respond. Research in classrooms shows that, on average, we wait about a second for someone to answer a question before rephrasing it or answering it ourselves. Some pupils process their ideas more quickly than others. Extending 'wait time' to about three seconds allows more pupils to offer responses and ideas. Before you give me your first answer, just spend a few minutes thinking it through to check it's what you really want to say. Another use of 'wait time' is to pause and reflect on a pupil's response before you respond yourself or to allow time for other pupils to reflect on the response and make their own contribution.

Another pitfall is for the adult to fall into a routine of asking all the questions.

Here are some alternatives to questioning:

- Invite pupils to elaborate: 'Say a little more about that.'
- Make a personal contribution from your own experience: 'What I felt was…' Speculate on a given subject: 'I wonder what would happen if…'
- Make a suggestion: 'You could try…'
- Reflect on topics: 'Yes. I sometimes think that…'
- Offer information: 'It might be useful to know that…'
- Echo: 'So you think that…'
- Make a non-verbal invitation. Eye contact, tilt of the head, nod and so on.
- Increase waiting time in preparatory discussion: 'Don't answer for a second. Just think for a moment about…'
- Refer to someone else: 'I think [name] might agree/disagree.'

Students asking questions

Examples of Quality Questions

Remembering
How would you describe...?
What did...?
Who were the main...?

Understanding
What can you say about...?
What is the best answer for...?
How would you compare...?

Applying
What examples can you find to...?
How would you use...?
What would happen if...?

Analysing
Why do you think...?
Can you describe the differences between...?
What is the main idea...?

Evaluation
What is the best...?
Where is the best place for...?
How will you work out...?

Creating
Can you think of a new way to...?
Where would you go next...?
How will you make...?

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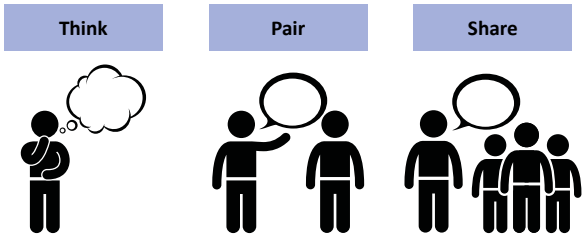
Quality Questioning



Quality questioning allows learners to develop higher order thinking skills.
Teachers should provide a rich range of contexts for questioning.
Children should listen attentively to questions and respond appropriately.
Children should be encouraged to ask their own questions.

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Approaches to teaching and learning

Approaches to teaching and learning must be in line with the aims, values and principles of the Curriculum, and need to be capable of bringing about its aims. To be effective, the values of the curriculum must permeate teaching and learning strategies. The principles suggest a shift of emphasis towards more active and personalised learning.

There is emphasis within the curriculum on the development of the four competencies in order to achieve the aims. These four competencies are both the object and the means of learning, so the strategies must embody and promote them.

All of this has profound implications for teaching and learning approaches. It will not be possible to bring about new aims with only traditional approaches. There are implications for the nature of the textbooks and also for sort of learning experiences that are provided within the classroom.

To achieve the broader aims, teaching and learning strategies need to be:

- centred on the learner rather than the teacher
- interactive, and give learners the opportunity to engage actively with their learning
- rooted firmly in the learner's experience, culture and environment so that they can make sense of their learning in their own terms
- chosen to be appropriate to the particular intended learning

In order to provide a balance between the acquisition of knowledge and understanding and the development of skills and attitudes learners need to be involved actively in their learning and be given opportunities during lessons to practise skills such as investigation, collaboration and critical thinking, and to be given opportunities through discussion and reflection to develop the desired attitudes and dispositions.

How to develop students' questioning skills

1. **Establish the expectation that students should ask questions about their learning and of other students.**

Talk with students about the what and the why of questions—helping them to understand their role as questioners and the value of questioning to their learning. Communicate to students the expectation that they should use questions to support multiple facets of their learning. To support this, consider introducing the following mindframes for students:

- *I ask myself questions to monitor my thinking and learning*
- *I pose questions to clarify and deepen my understanding of academic content*
- *I use questions to understand other perspectives and to engage in collaborative thinking and learning*
- *I use questions to channel my curiosity and spark my creativity.*

2. Develop skills for questioning

This involves identifying and communicating key skills and providing tools, for example, stems, to support each skill. Below are some sample skills and accompanying stems.

Skill	Sample Stems
Ask questions to yourself to make meaning of the most important facts or ideas you read or hear.	What seems to be the most important idea? What is confusing me? What don't I understand? How would I explain this in my own words?
Ask questions to connect content to what you already know.	What comes to mind when I read (or hear) this? What do I already know about this? Does this contradict something I think I already know? In what ways does this add to or extend what I already know?
Ask questions to clarify and better understand the meaning of a topic or text	What did the author mean when she wrote _____ ? What do you mean when you say _____ ? Can you say this in another way? What example can you give? How would you summarize _____?
Ask questions to understand the relationship between two different things.	How is _____ similar to _____? How is _____ different from _____? What do ____ and ____ have in common? What may have contributed to _____? What resulted from _____?
Inquire about the importance or value of something.	What contributes to the significance of _____? How might we go about evaluating _____? What criteria (or standards) could we use to judge _____?
Express curiosity.	I wonder why _____. How might we _____? Have you ever thought about _____?
Challenge a traditional way of thinking about a topic.	What might be an alternative way of thinking? What if _____ ? What's another way of thinking about_____ ?
Test new ideas.	I am thinking _____. How do others react? Imagine _____. How might that play out? What if _____?

3. Offer opportunities for practice

Teach your students questioning skills in a practice setting. This can be as simple as an assignment that calls for student creation of five questions about a homework or class reading. You might have them write down three for which they think they know the answers (closed questions) and two for which they do not (open-ended).

More structured practice might involve one of the Visible Learning Thinking Routines such as Think-Puzzle-Explore or See-Think-Wonder. When asking students to create questions, it's important to give them a chance to use them – whether posing them to classmates, using them for an investigation or research endeavour, or in some other authentic manner.

4. Provide time and opportunity for questions

If students are to question orally during class, they must have the chance to enter the classroom conversation. Teachers can also use pauses during direct instruction to afford time for student processing and questioning. Before the pause, ask "What kinds of questions do you have?" (a much better prompt than the usual, "Do you have any questions?)

Ensure you give time to talk before expecting an answer – using ideas such as talk partners – where students are put in pairs to discuss ideas and questions for about 1 minute before giving an answer.

The common thread running through all of these techniques is the interruption of teacher talk long enough for students to be able to think about and pose their own questions.

5. Create a culture that values student questions

None of the above strategies will take off in a culture where students are afraid to take risks – to make themselves vulnerable. Many students believe that by asking a question they are admitting their own ignorance. Teachers must be intentional in communicating to students that their classrooms are places where questions are valued even more than answers. "Curiosity is celebrated here!"

Alternatives to teacher questions

- Invite student to elaborate – say a little more about that
- Invite other students to agree/disagree with the answer given and explain why
- Invite other students to ask a question to the class
- Use talk partners to generate questions and comments
- Invite opinions on true/false questions
- Write your questions down and have students ask them to the class.
- Speculate – I wonder what would happen if… and get the students to use the same stem… I wonder ….
- Use Visible Thinking Routines to develop students' independence and opportunities to ask questions such as Think-Pair-Share, 3-2-1 Bridge .

Activity 4: Exploring Stories

Developing Thinking Skills

Handa's Surprise

This activity is based on the story 'Handa's Surprise' by Eileen Browne.

Handa lives in Kenya. She fills her basket with seven delicious fruits, one for each of her friends. But as she walks, the basket balanced on her head, she is unaware of the crafty animals intent on stealing her fruits! The story is summarised at the back of this booklet.

Other well-known stories can be used as a starting point for many learning activities. The ideas below can be adapted for any story.

	Teaching and Learning Sequence	Thinking Skills for Learners
A	Read the story to the learners. Then, ask them to work with a partner to summarise the story in a maximum of 30 words.	Outlining the key features of the story. Selecting appropriate language. Summarising effectively.
B	Ask the learners, in small groups, to compose a simple poem based on the story. Suggest possible titles and phrases for the poems, such as: Bold Bananas Bounce; Magnificent Mangoes Mingle; Outrageous Oranges Ooze.	Generating phrases for the poem, based a language pattern provided. Modifying and revising vocabulary to create the desired effect.
C	In groups, ask the learners to create a short role play or sequence of pictures that show this story taking place in another country or locality.	Selecting key features of the story. Changing them so they match another setting.

Additional Ideas

Secondary 1: Mathematics

In pairs, learners collect and **select a range of data** about the foods listed in this story, including their health benefits. **Learners interpret** the data in order to make some decisions about which ways, and in what quantities, these foods could be combined to produce a healthy diet plan or menu. Learners explain their menus to others, **justifying** their food selections and combinations.

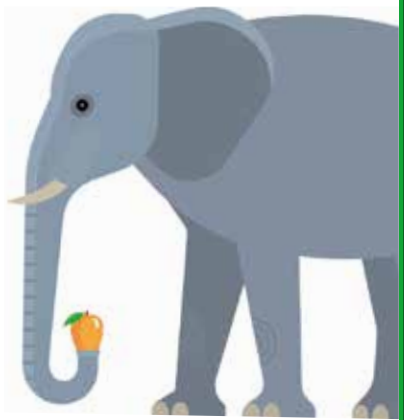
Secondary 2: Biology

Learners explore and compare the effects of climate change on plants and animals. They work in groups to examine to the extent to which animals and plants are affected by climate change in South Sudan. They go on to compare this to a contrasting country. Learners identify which environmental conditions play a key role in defining the function and distribution of plants.

Secondary 4: Chemistry

In small groups, learners consider and **explore** how the state of the foods in this story can be changed by: exposing them to heat; combining them with others; attempting to dissolve them in a liquid. Learners use what they learn from this to **conduct further research** in order to explain the energy changes that take place in these chemical reactions. They **identify** the best way to illustrate these changes, choosing the most accurate scientific symbols, vocabulary and diagrams.

In The Arts, learners review and compare a range of pieces of music that portray animals. They list and rank features of this music that they believe make them effective and then use these features to compose their own music inspired by a similar theme.



Handa's Surprise

Handa put seven different delicious fruits in a basket for her friend, Akeyo. Her walk to see Akeyo took her past a variety of animals who found the fruits to be very inviting…

She will be surprised, thought Handa as she set off for Akeyo's village with the fruits in a basket balanced on her head.

I wonder which fruit she will like the best?

Will she like the soft yellow banana, as a crafty monkey stole the banana, or the the sweet-smelling guava? An eager ostrich stole the guava.

Will she like the round juicy orange, as a quick witted zebra stole the orange,

Or the ripe red mango? An elderly elephant stole the mango.

Will she like the spiky-leaved pineapple, as a grateful giraffe stole the pineapple,

Or the creamy green avocado? A greedy gazelle stole the avocado.

Will she like the tangy purple passion-fruit she thought, as a perky parrot stole the passion-fruit, the last fruit of them all!

Nearby, a goat escaped his tether. He ran towards Handa and bumped into a tangerine tree which sent a shower of fruit into Handa's basket!

Which fruit will Akeyo like the best?

"Hello, Akeyo," said Handa. "I've brought you a surprise."

"Tangerines!" said Akeyo. "My favourite fruit."

"TANGERINES?" said Handa. "That is a surprise!"

Session 1, Course 3, Module 4

Session 1
Module 4: Questioning
Session 1 notes

Activity 1

How many questions have you already asked today?

Activity 2

Key points about questioning

Notes
Headlines!

Activity 3

Types of questions

	Your ideas for questions
Why?	
What?	
Why?	
Where?	
Who?	
When?	
What if...?	

Session 2, Course 3, Module 4

Session 2
Module 4: Questioning
Types of questions
Session 2 notes

Activity 4

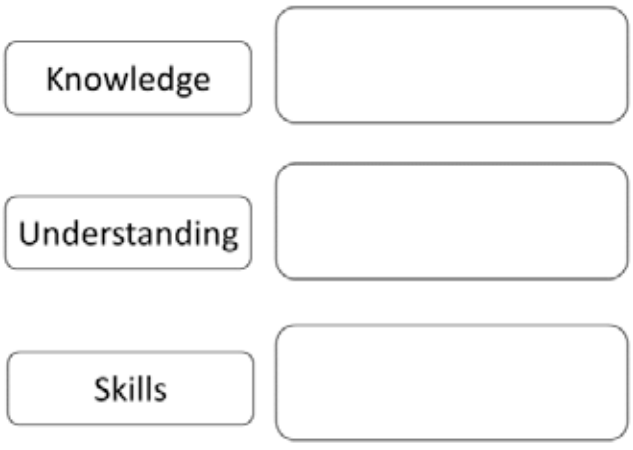
Questions

	Closed questions	Open questions
Why?		
What?		
Why?		
Where?		
Who?		
When?		
What if...?		

Activity 5

Questions related to the types of learning

Points to remember:



Bloom's Taxonony and higher-order questioning

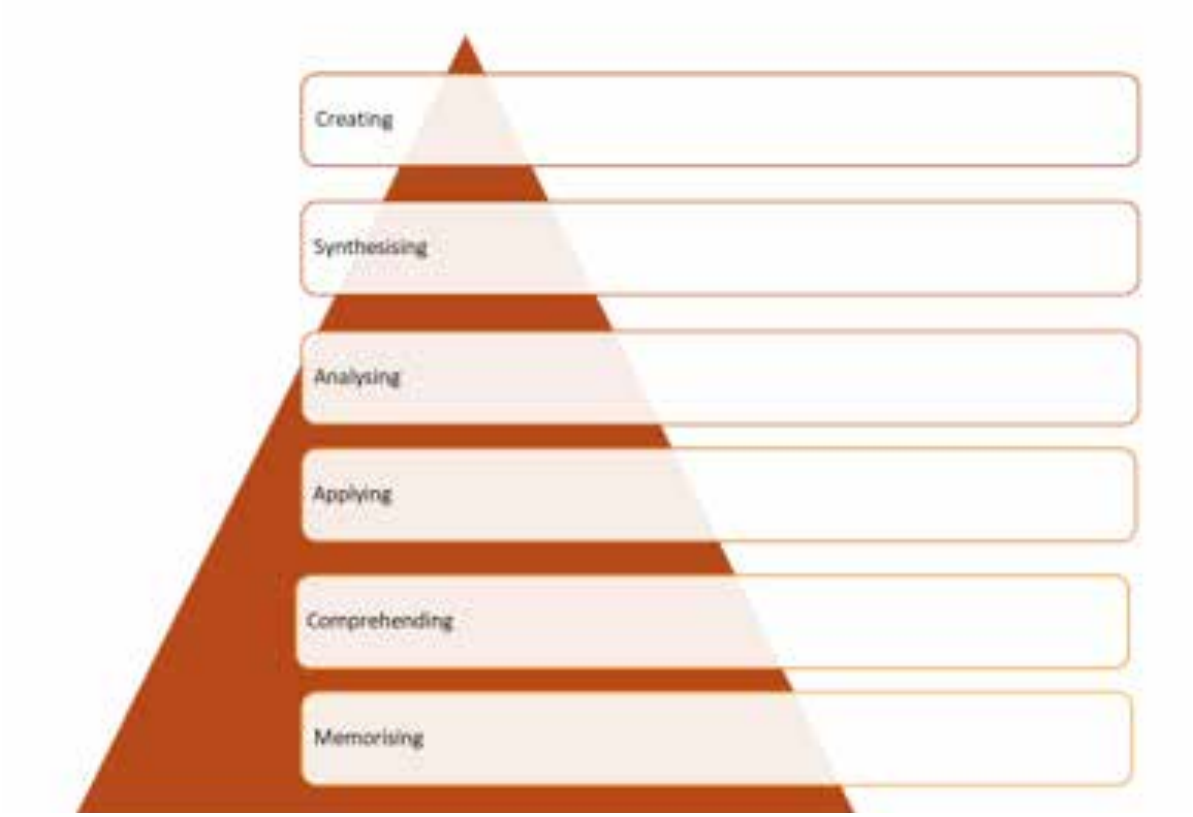
Points to remember:

Session 3, Course 3, Module 4

Session 3
Module 4: Questioning
Higher-Order questions continued Students asking questions
Points to remember

Activity 6

Handa's Surprise questions



Students asking questions
Points to remember

Activity 7

Alternatives to asking a question

Notes and ideas

Session 4, Course 3, Module 4

Session 3
Module 4: Questioning
Reflection on the learning
Points to remember

Activity 8

Write a list of 10 top hints and tips on questioning in the classroom

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

Activity 8

Reflection

Think about what you have learned today.

Write down anything you want to remember.

Module 5:
A repertoire of strategies

This module explores why it is important for teachers to have a range of approaches (repertoire of strategies) to promote different types of learning in different learners and in different situations.

Course 3: Teaching and Learning

Module 5: A repertoire of strategies

This module explores why it is important for teachers to have a range of approaches to promote different types of learning in different learners and in different situations

Key Points:

- The South Sudan Curriculum has equality at its heart – and the importance of the teacher's role in inclusion and gender equality
- All young people must have access and be included
- Every student deserves to experience success
- Equal support and attention must be given for girls and boys
- Ensure gender stereotypes are avoided and challenged
- Make all students feel welcome
- Teachers have a responsibility to ensure opportunities for success for all students
- Learners have a variety of needs and attributes
- A repertoire of teaching and learning strategies is key to meeting the variety of learner needs to ensure they are successful
- Teachers need to match the approach to meet the needs of the learner and the styles of learning
- Learners have different learning styles and preferences for how they process or retrieve learning

Outline

Session	Content
1	Slides Introduction to the module on a repertoire of strategies • *Activity1a - An ideal learner* • *Activity 1b - Teachers building learner attributes* Slides – Key points about this module • *Activity 2 - Different students with different needs and experiences* • *Activity 3 - Thinking about specific students in the class*
2	Slides – Different students have different needs • *Activity 4 –Exploring concepts in the background information* • *Activity 5 Equity and equality discussion* Slides – Inclusion and equality in the SS Curriculum
3	• *Activity 6 – Planning learning experiences – to promote collaboration and inclusion* • *Activity 7 – Class Debate* Slides – debate statements • *Activity 8 – Reflection on the learning today*
4	Slides on the Course 3 Gap Task • *Activity 9 Reflection on the learning from Course 3 Teaching and Learnin*

Resources

P6 Textbooks

Curriculum Framework

ECD Curriculum and Guidance

Subject Overview

Background information

Visible Thinking Routines

Harvard Graduate School Project Zero

A toolbox of routines and frames that can be used to support student learning and thinking across all age groups and all subjects. Derived from Project Zero's Visible Thinking research.

Routines you have already used in this course include:

- **Think Pair Share** (think as an individual, pair with another person to share the thinking and then share with another 2 people)
- **Think Puzzle Explore** What do you think you know about this topic?

  What questions or puzzles do you have? What does the topic make you want to explore?
- **Headlines** - Write a news headline or draw a picture to capture the key message in material you have read

To learn more about PZ Thinking Routines and their background, watch this video introduction and read more about PZ's initial Visible Thinking research.

Talk Partners

Students are paired with another student and when a question is asked to the class or a short task is set, the partners have a focused discussion (for 30 seconds if it's a memorising question and about a minute if it's an explaining or analysing question and up to 2 minutes if it's concepts or processes discussion).

Pairings can be random (picking names out of a bag or those who share the same birth month) or can be the students' choice. It's a good idea to swop the pairings on a regular basis so that all students get an opportunity to be paired with all other students in the class.

What are learning styles?

The key points about Learning Styles

- These are intelligences/preferences for how different people process and make meaning
- It is not about having 8 teaching strategies to match 8 different learning styles. Learners very rarely have a single learning style – most of us have a combination of preferences
- Restricting students to learning in one way is not helpful
- Teachers should think about how they can use a variety of approaches to support all students to acquire and process information in a variety of ways

Implications of learning styles for teaching

- Balance of approaches in teaching to allow for diverse learning preferences and experiences
- Provide context and purpose for learning
- Use theories, models and demonstrations of processes and concepts
- Provide visual and verbal information (often at the same time)
- Examples to exemplify, analogies and stories to provide an emotional cue or hook for the learning
- Ensure there is time for students to reflect
- Ensure there is time for students to be active in their learning – exploring, creating etc.

Learning style can be described as the idiosyncratic way in which an individual acquires, processes, comprehends and retains information.

There are 7 main Learning Styles, but the first three are the most common and widely used:

1. **Visual**

   Where learners prefer to use pictures, images and spatial understanding
2. **Aural**

   Where learners prefer acoustic stimuli
3. **Kinesthetic**

   Where learners prefer to use their body, hands, gesturing and touching
4. **Verbal**

   Where learners prefer speech and writing
5. **Mathematical**

   Where learners prefer using logic and reasoning
6. **Interpersonal**

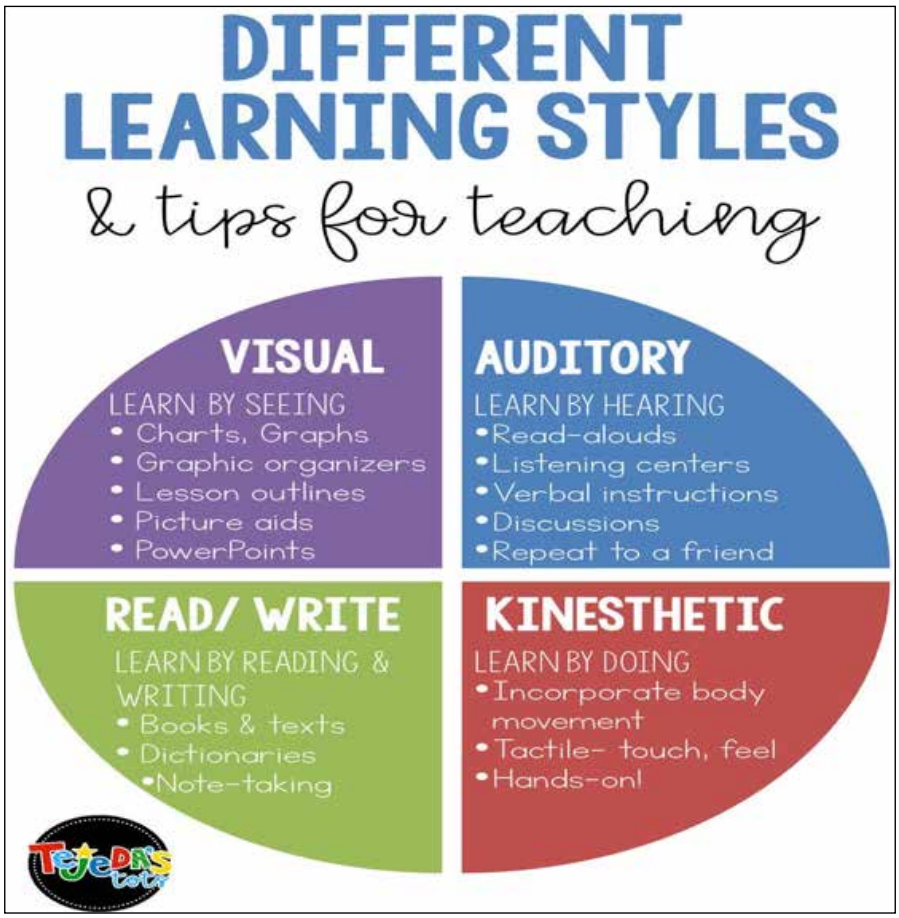
   Where learners prefer to learn and function within groups
7. **Intrapersonal**

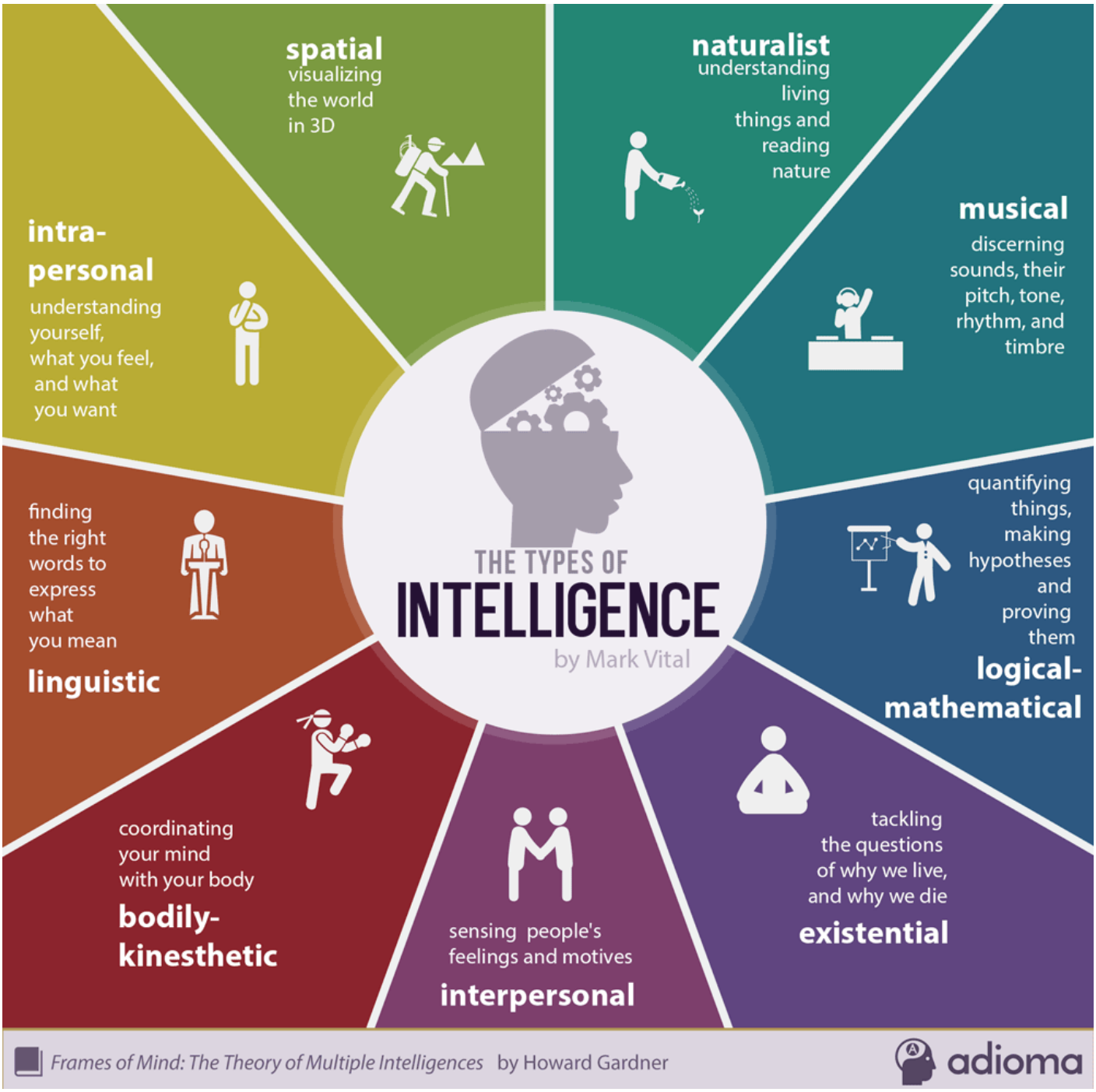
   Where learners prefer self-study and to learn alone

Learning styles explained

https://www.youtube.com/watch?v=FVg9n0l0Gf0
6-minute video explains the 7 styles and what the preference could mean to teaching. For example, Intrapersonal preferences for working with others… teachers might introduce study groups and other group-working techniques.

Reference: *1983 Frames of Mind – Theory of Multiple Intelligences, Howard Gardener.*




spatial
visualizing the world in 3D
naturalist
understanding living things and reading nature
intra-personal
understanding yourself, what you feel, and what you want
musical
discerning sounds, their pitch, tone, rhythm, and timbre
THE TYPES OF
INTELLIGENCE
by Mark Vital
finding the right words to express what you mean
linguistic
quantifying things, making hypotheses and proving them
logical-mathematical
coordinating your mind with your body
bodily-kinesthetic
sensing people's feelings and motives
interpersonal
tackling the questions of why we live, and why we die
existential
Frames of Mind: The Theory of Multiple Intelligences by Howard Gardner
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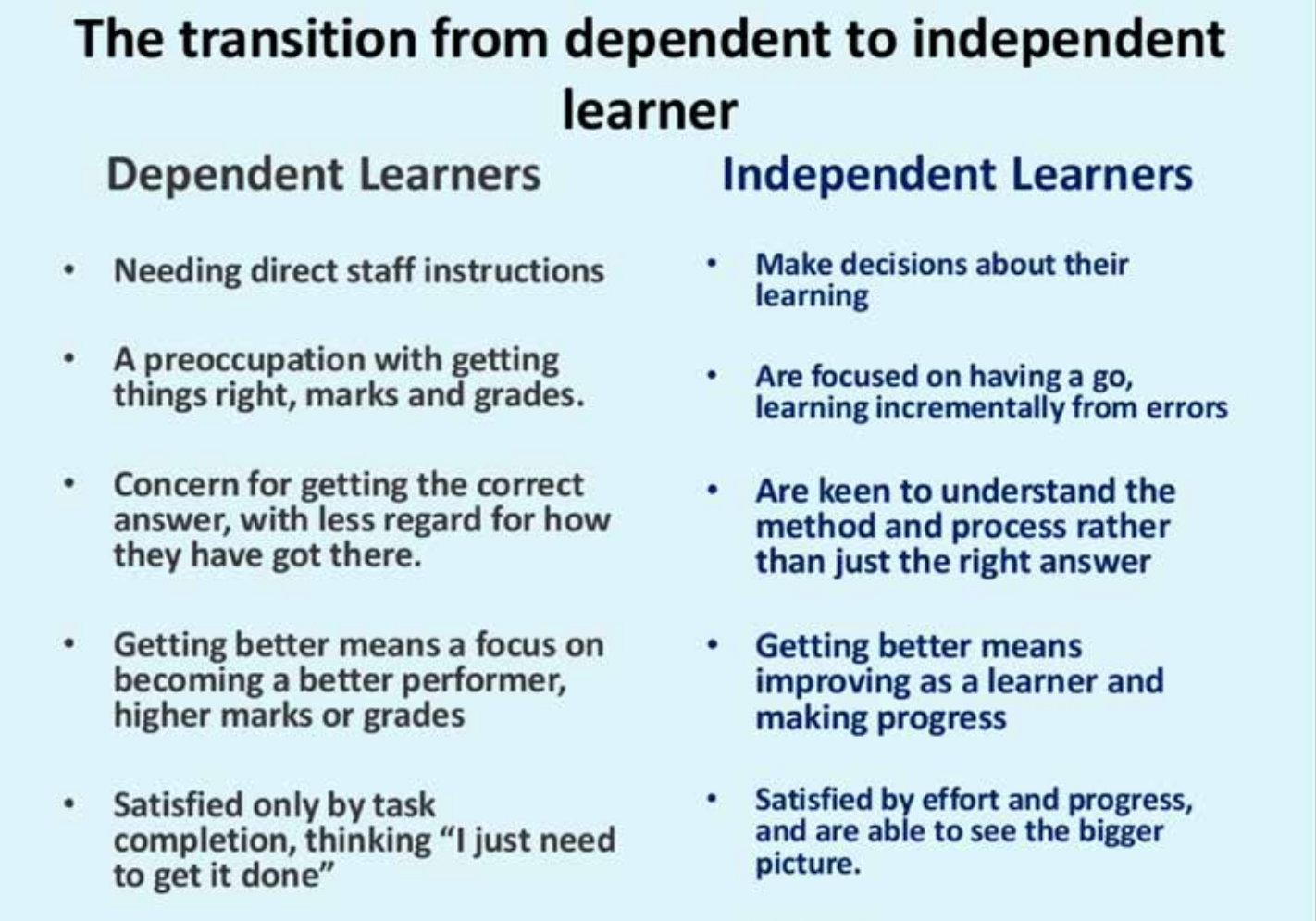


How to develop independent learners

The Learning mindset

Mistakes are part of learning and we should learn from the mistakes we make, not be embarrassed by them. Far too many students are afraid to try new things because they fear they will fail. In order to help students become strong, independent learners, we must teach them to see failure as an opportunity to learn. Students will never learn if they are too afraid to try.

Show your students that failure is not inherently bad. Show them real-life examples to help encourage them to try their best. If possible, use your own experiences to explain to the kids about failure. Use real-life examples such as inventors or artists who had to struggle to find success.

Praise effort and persistence.

Hard work and persistence can help a child to excel, and therefore, it is crucial to praise a student who is striving to be better. Not only does this help the child become a better independent learner, it gives the student a sense of pride as well.

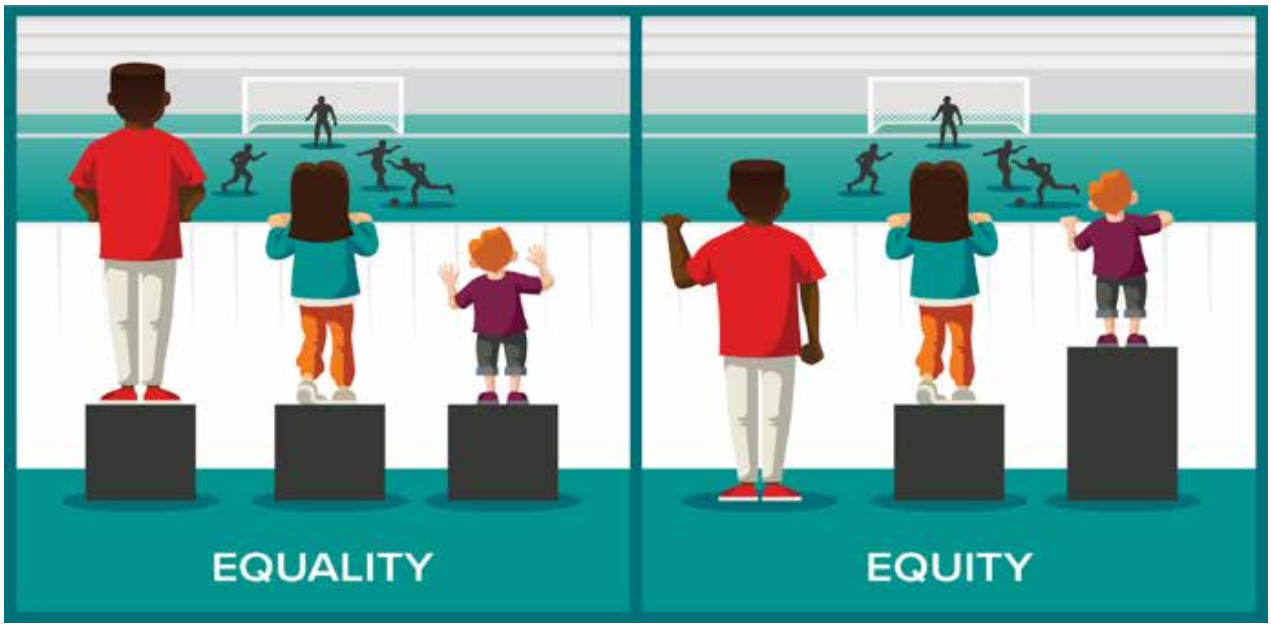
Minimise teacher talk – have students work in pairs and groups as much as possible.

Agree the attributes of a good student with your class – so that they know it's about effort, hard work, enthusiasm, asking questions and being curious etc.

Characteristics of Independent Learners

1. **Curiosity** – Independent learners want to find out more about the world. They seek out ways to explore. They learn from various angles and formats, not just traditional instruction. They are proactive and find ways to access additional lesson supplements on their own.
2. **Self-motivation** – Intrinsic motivation far surpasses any prize or reward system. Independent learners are motivated by setting internal goals to achieve. They are driven by their own personal achievement.
3. **Self-examination** – Where have you been and where are you going? Independent learners know how to evaluate themselves. They can see their strengths and weaknesses. They strive for measurable progress and often chart their accomplishments and failures.
4. **Accountability** – Responsibility means knowing what you have to do and doing it without anyone telling you to. The sooner a student becomes responsible for consequences, the less dependent he will be on outside sources for discipline or motivation.
5. **Critical thinking** – Independent learners think critically about a situation. They examine all possibilities and often come up with multiple solutions. They don't just memorise. Rather, they ask "why?" and formulate answers based on real-world observation and intelligent deduction.
6. **Comprehension with little or no instruction** – Independent learners have an uncanny ability to read, visualise, or kinaesthetically instruct themselves. No matter the topic or subject studied, an independent learner will find ways to understand material through application (generally trial-and-error).
7. **Persistence** – Independent learners don't give up. They strive to understand a concept as much as possible on their own before asking for help. They also apply self-discipline in not finding the easy answer to a problem. They teach themselves and generally only ask questions after failure to find a solution on their own.

Equity and Equality



There is a common misconception that equity and equality mean the same thing — and that they can be used interchangeably, especially when talking about education. But the truth is **they do not — and cannot.** Yes, the two words are similar, but the difference between them is crucial. So please, don't talk about equality when you really mean equity.

What's the difference?

Should per-student funding at every school be exactly the same? That's a question of equality. But should students who come from less get more in order to ensure that they can catch up? That's a question of equity.

Yes, making sure all students have equal access to resources is an important goal. All students should have the resources necessary for a high-quality education. But the truth remains that some students need more to get there.

Here's where equity comes in. The students who are furthest behind require more of those resources to catch up, succeed, and eventually, close the achievement gap. Giving students who come to school lagging academically (because of factors outside of a school's control) the exact same resources as students in higher income schools alone will not close the achievement gap.

Equality has become synonymous with "levelling the playing field." So let's make equity synonymous with "more for those who need it."

Adapted from an article posted by Blair Mann in Education Trust Blog 2014

Inclusion and Special Educational Needs

It is essential that all young people are enabled to access education. They must all be included. This includes those with disabilities, those from minorities and those with particular learning difficulties. The curriculum will apply to all schools and learners, but the way in which it is interpreted and taught will need to be adapted to ensure that all learners are included. Schools should aim to give every student the opportunity to experience success in learning and to achieve as high a standard as possible. To do this, schools will need to consider:

- Creating effective learning environments
- Providing appropriate support to learners with special educational needs
- Providing specialist equipment or materials where appropriate
- Varying teaching approaches where necessary to ensure that all learners are learning

Learners with visual impairment should have opportunities to access and have physical contact with artefacts and materials, and, where necessary, texts in Braille. Learners with hearing impairment should have opportunity to experience sound through physical contact with musical instruments and other sources of sound. Provision should be made for these learners to learn and use sign language where necessary.

Gender equity

The curriculum applies equally to male and female learners. There is no subject that applies to only one gender.

Schools need to ensure that all learners have equal access to the curriculum, regardless of gender. To this they need to consider:

- Giving equal support and encouragement to girls as well as boys
- Ensuring that gender stereotypes are avoided and challenged
- Setting equally high expectations for both genders
- Making sure that the school is welcoming to both genders
- Ensuring that girls as well as boys are listened to with respect and given full opportunity to contribute to lessons
- Encouraging girls to attend and supporting them to achieve

Every encouragement needs to be given to girls to help them complete their schooling successfully.

Debate as a teaching strategy

A debate is basically an argument with strict rules of conduct. It is not a shouting match between two sides with different points of view.

Socratic method

Effective and simple, this method sees the teacher posing a debatable question to their class and afterwards, inviting students in the class to present arguments 'for' and 'against' it.

This is a free and autonomous way to introduce debate in the classroom and can encourage students to dissect their peers' ideas for critical thinking and develop their own ideas and confidence in turn.

Group debate

Split your class up into groups of around four students. Give them a question to explore within their groups. Get them to plan, research and write down their answers in response to the question.

Then, get each group to nominate a speaker to present their arguments to the class – you could even set them an additional task to create a formal presentation to present their ideas and make it a whole lesson.

This is a great way of getting the whole class to participate, getting those less likely to speak up involved with debating and thinking critically.

Whole-class involvement

This is an idea to not only introduce debate into the classroom but get the whole class involved in debating all together! Present a question to your class. Nominate someone to present arguments 'for' that question and someone to argue 'against'.

The rest of the class will act as the 'audience' and will be able to put questions across to the nominees to answer – this means they'll be able to question both sides of the argument. This method is fantastic for encouraging speaking and listening in the classroom.

Cross-cutting Issues

Cross-cutting Issue: Peace Education

Elements to be integrated into the curriculum

P1	P2	P3	P4	P5	P6	P7	P8
Engage in common activities that bring pupils together. Share and take turns	Co-operate within a group, appreciating different needs and roles Be aware of the signs of landmines	Be aware of the ways of resolving conflict in their own situations, and the need for respect, tolerance and gender equality Understand and explain risks of mines and unexploded ordinance	Identify acts that can lead to conflicts in their own situation, and know how to avoid them. Know how to resist peer pressure when necessary.	Recognise that respect for human rights and gender equality underpins peaceful co –existence *(including gender stereotypes)* Be aware of ways of the dangers and consequences of the spread of HIV/AIDS and STIs	Recognise the importance of promoting human rights and the systems that protect them *(including forced marriage etc)* Know about the causes, effects and ways of preventing HIV/AIDS and STIs.	Be able to discuss the consequences of international conflicts, and how they are mediated and resolved. Be aware of the ways of promoting gender equality in a local and national situation.	Understand ways of building reconciliation in conflict areas, and the national and international bodies that exist to promote peace and reconciliation.

S1	S2	S3	S4
• Be aware of the theory of peace conflict resolution • Understand the importance of service delivers in conflict resolution.	• Recognise key areas of conflict *(eg power, identity, religion, natural resources)* • Know about key advocates for non-violence in South Sudan and the world.	• Recognise the links between conservation of environment and peace • Understand how civic leadership can work together to promote peace making and conflict resolution	• Understand the basis of holistic peacemaking and conflict resolution. • Understand the role of the United Nations (UN) Charter on Conflict and peace resolution, and the African Union (AU) charter on conflict and resolution.

What's great about debate is that it's not just a great way for encouraging class participation, it's also a fantastic learning and assessment tool. It will teach your class to recognise that discussions are best when everyone can speak and when there are no interruptions. However, it's also a fantastic assessment tool to see if students have grasped a concept too!

Formal debates

Debate teams of 6 – Team 1 to agree and team 2 to disagree

Chairperson – who invites people to speak when it's their turn and ensures the debate stays on topic

Timekeeper – gives a visual or aural cue when time is up (such as clapping hands or ringing a bell)

Audience who is invited to ask questions of both teams

Time to research and prepare

Team 1 – makes a 3-minute presentation of why they agree with the statement

They should include a clear opening statement, and then expand on their argument using facts, research quotes and opinion, as well as examples of their own experience.

Team 2 – make their presentation in the same way.

Chair invites a question from the audience - which both teams have a chance to answer.

Chair invites another question from the audience - which both teams have a chance to answer.

Chair invites a question from Team 1 to team 2

Chair invites a question from Team 2 to team 1

Closing remarks from both teams – 2 minutes each.

Basic Debating Rules

A debate is basically an argument with strict rules of conduct. It is not a shouting match between two sides with different points of view.

There are 2 sides in a debate:

1. The Affirmative agrees with the topic.
2. The Negative disagrees with the topic.

Tips for the participants/students

1. Be prepared – research your topic for facts, quotes, research findings opinions of others.
2. Have a clear argument for your point(s).
3. Anticipate what they will say and have responses ready.
4. Stay on topic.
5. Speak slowly and clearly, with intonation.
6. Be confident and friendly.
7. Listen carefully to what the opposition argument is and make notes.
8. Have a clear structure – opening, expanding on your points and conclusion.
9. Tell a story, using analogies to make your point and to appeal to the audience's emotions.
10. Always be polite and never be disrespectful to your opponents.

Use these tips as success criteria for the debate

- How well prepared were the teams?
- How clear was the argument - how persuasive were the points made?
- Was the presentation on-topic, and clear and interesting?
- How polite, respectful, and professional were the teams?
- How well did the chairperson and timekeeper keep things on track?

Gap task for Course 3 Teaching and Learning

Purpose – to take the learning from this course on teaching and learning and put it into practice in your classroom.

Focus on questioning and encouraging student independence.

Success criteria

- Plan learning activities that promote student talk
- Ask a range of questions to deepen learning
- Use strategies to ensure students have time and space to respond to questions

Activity:

1. Plan an activity to teach which students have to work together on. It could be an activity you have done this week (like asking questions about a photograph or a number problem or a story such as Handa's Surprise).
2. Make a note of the questions you want to ask – that shows how you will build up the level as in Bloom's Taxonomy.
3. Identify 2 strategies to try with your class to promote their talk/asking their own questions:
    - Talk partners
    - Wait time
    - Alternatives to questions
    - Open-ended activities
    - Using visible thinking routines
4. Observe the way your students respond to these strategies over several lessons or days. Identify 6 different students to focus your observations on.
5. Make a note of the difference you've seen.
6. Talk to the students and ask them if they felt the strategies helped them and why.

Session 1, Course 3, Module 5

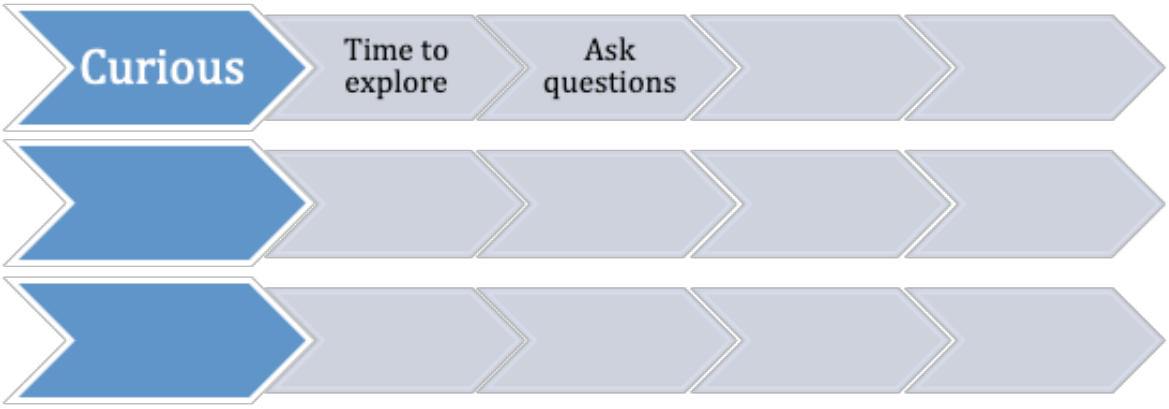
Session 1
Module 4: A repertoire of strategies
Learning outcomes for the session: • *Why different strategies are needed for different situations* • *The approaches needed for some different situations and parts of the curriculum* • *Strategies that address different needs*
Notes

Activity 1a

Imagine the ideal student in your class…
What learning attributes would he or she have?

Activity 1b

How teachers can build learner attributes



Background information notes and ideas

Activity 2

Important points and ideas

Activity 3

How are students different from one another?

Session 2, Course 3, Module 5

Session 2
Module 4: A repertoire of strategies
Notes on learning style and preferences

Activity 4

Discuss the key points about learning styles

Choose 3 of the key points and draw a poster to explain each one

Activity 5

Discuss this view of equity and equality

Notes on inclusion

Notes on Gender equality

Session 3, Course 3, Module 5

Session 3
Module 4: A repertoire of strategies
Your notes and ideas

Activity 6

Plan a range of experiences and activities that will enable students to collaborate and contribute.

Focus on collaboration.

Your notes and ideas

Activity 7

The Class Debate

Notes and ideas

Activity 8

Reflection

Think about what you have learned today.

Write down anything you want to remember.

Session 4, Course 3, Module 5

Session 4

Module 5: A repertoire of strategies

Course 3 School-based Activity

Participants should **plan, implement and evaluate** some learning activities that promote independent learning. The implementation could be in one lesson or in a series of lessons across a syllabus unit. They should plan the activity, specifying the learning outcomes sought, relating it to the learning theory, and taking account of what the challenges are in relation to implementation and what solutions they have developed.

Where possible, participants should work with a colleague to observe the activity being implemented and discuss how it went.

Activity:

1. Plan an activity to teach in your classroom that requires students to work together. It could be an activity you have done this week (like asking questions about a photograph or a number problem or a story such as Handa's Surprise).
2. Make a note of the questions you want to ask – that shows how you will build up the level as in Bloom's Taxonomy.
3. Identify 2 strategies to try with your class to promote their talk/asking their own questions:

- Talk partners
- Wait time
- Alternatives to questions
- Open-ended activities
- Using visible thinking routines

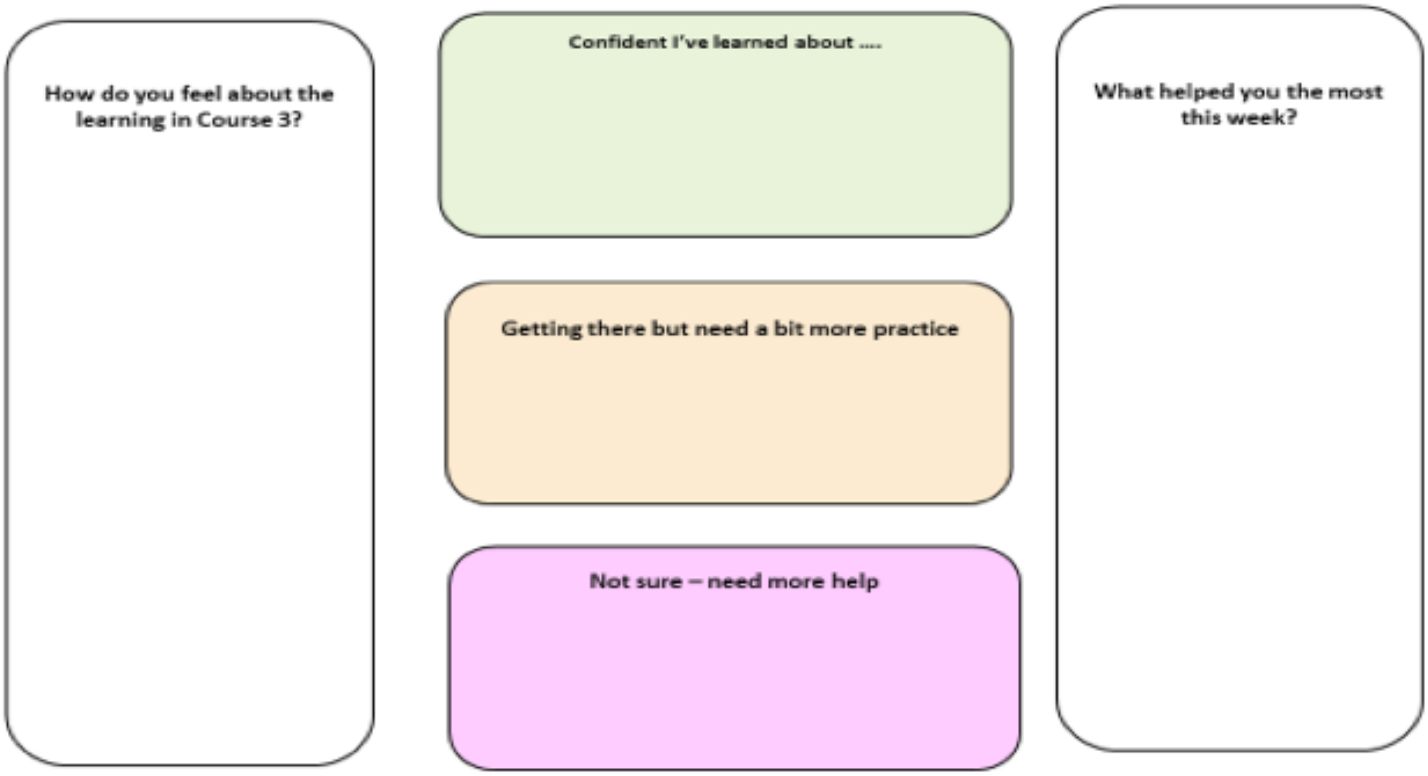
4. Observe the way your students respond to these strategies over several lessons or days. Identify 6 different students to focus your observations on.
5. Make a note of the difference you've seen.
6. Talk to the students and ask them if they felt the strategies helped them and why.

Use this template to help organise and record your thinking

Gap tasks	Notes		
1. The learning activity			
2. Key questions			
3. Strategies I chose to practise	1	2	3
4. Observations of my students	What I noticed about their talk… What I noticed about their interest and engagement…		
5. Notes of my observations	What I noticed about their knowledge, understanding and skills		
6. My students' views of the strategies	Things they thought worked well Things they thought need more practice Things they thought did not work		
Any other notes			

Activity 8

Review of your learning in Course 3



Notes and ideas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MINISTRY OF EDUCATION, SCIENCE & TECHNOLOGY
MoEST