TESSA

Teacher Education in Sub-Saharan Africa

Teaching Pack No. 4

Early Primary

Section 1	**Literacy:**	Games for learning language
Section 2	**Numeracy:**	Introducing measurement
Section 3	**Science:**	Investigating animal hunters and the hunted
Section 4	**Arts:**	Practical activities with local crafts
Section 5	**Life Skills:**	Health and well-being in younger learners

Additional Resources:

- Group work in your classroom
- Working with large/multigrade classes

http://www.tessafrica.net

4

Literacy: Using local games for learning

1 Games for language learning

2 Games and chants on reading cards

3 Word Games

Key Question for the teacher:

How can you use local games to help language learning?

Keywords: reflection; research; local games; traditional; rhymes; songs; investigating

Learning Outcomes for Teachers:

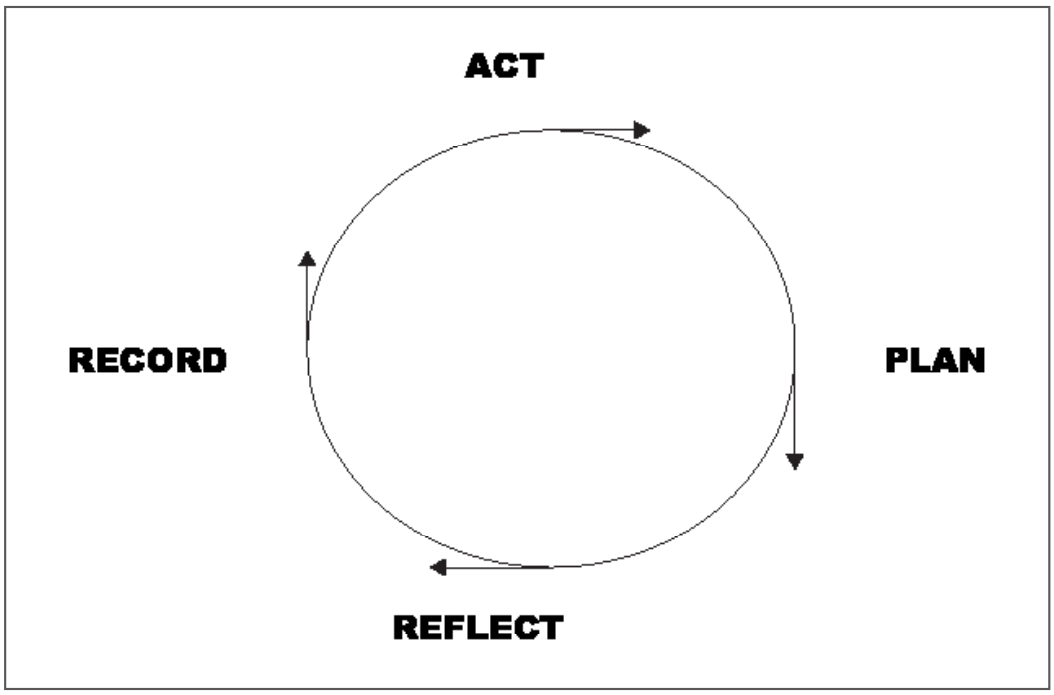
By the end of this section, you will have:

- **used traditional and oral games to support learning activities;**
- **motivated students and built their confidence in using language for games, songs and rhymes;**
- **extended your own skills in thinking about your role and effectiveness by investigating the value of games for learning**

Overview

Good teachers plan what they do and, once they have done it, record what happened, ask themselves what was successful and what needs improvement. They reflect on (think about) whether the students learned anything and, if they did, what they learned. On the basis of this 'reflection', they plan again for their next activity. This **Action-reflection cycle** shows this process in the form of a diagram.

Action-reflection cycle



The diagram shows the following steps in the action-reflection cycle:

1. **Plan** an activity.
2. **Act** by putting the plan into practice, and observe how it goes.
3. **Record** what you observe.
4. **Reflect** on what happened.
5. Revise your **plan,** or make a new **plan.**
6. Put the revised or new plan into action, and observe again.
7. **Record** and **reflect** again.
8. And so on, and so on…

Everything you do as a teacher can become part of an action-reflection cycle.

1 Games for Learning Language

Children do not only learn in the classroom; they also learn while they are playing. They learn from one another, by watching what others do. They learn by talking, singing, chanting and interacting. By can use play to make your classroom learning more effective and close the gap between what happens in the classroom and outside.

Teaching Example 1

Six-year-old Maria is at a school where English is the language of the classroom, although it is not her home language.

Every day for a week, Maria could be seen at break time watching other children play with a skipping rope. She did not join in, but stood close enough to watch and to 'listen in' to the rhyme the children were chanting.

On the first day of the second week, Maria took her usual position a few feet away from the game, but now she could be seen 'sounding out' the words of the rhyme.

'Juu-ump, Juuu-ump in and saaay
One-un, two-ooo, threee,
Juu-ump in wi-th me.'

She repeated these words over and over, taking delight in saying them louder, softer, and with different stress on parts of a word.

She repeated these words over and over, taking delight in saying them louder, softer, and with different stress on parts of a word. She repeated the rhyme several times and then listened again to the other children. She smiled, and said the rhyme again. Finally she looked for a rope and went to her friend, Miguel. She sang the song, line for line to her friend, teaching him the song. She translated the English words so that he could understand what he was learning. Soon Miguel was able to sing the rhyme with Maria.

Activity 1

Talk to your students about learning. Do they know that they are always learning: at home, at school, when they are playing?

Ask the class to do an investigation into 'natural' learning.
Their question is: What learning happens when children play?
The students should make notes and drawings about the learning they see in the playground and after school, when other children are playing, and when they play themselves.

In class, ask students to share their findings, in groups. Ask each group to demonstrate how to play one game. Record songs or chants they sing during the game, on tape, or in writing.

Ask each group to discuss what can be learned from these games. Note down their ideas.

What did you learn from this activity about how games can help learning?

Here are two examples of games to try out with your students and then to reflect on yourself

2 Games and chants on reading cards

All sorts of games can be used for learning and you need to think creatively about how to use them in the classroom (see Activity 2). It helps if you can work together with colleagues and friends, and also with your students, creating new ideas that can make the learning in your classroom more fun and effective.

In this part, you and your class extend your research investigations by asking older members of the community about games that they played when they were young.

Teaching Example 2

The Project for Alternative Education in South Africa (PRAESA) promotes additive multilingualism, i.e. basic learning in the home language, with other languages added (without replacing the home language). PRAESA believes that all languages that children know should become part of the learning environment.

Mr Jacobs helped his Grade 3 students in Cape Town to make 'reading' cards, one for each student in the class. They drew a picture of themselves on one side of a piece of card. On the other side, they wrote songs, games, chants or rhymes, which they brought from home.

Each day, they have a reading period when the children read (and sing!) the cards. Sometimes, a better reader reads a card with a slower reader.

Sometimes, a speaker of one language helps another student to read their language and make the sounds. Sometimes, they act out the rhymes or play the games. Mr Jacobs has noticed how much happier his class is and how they mix much better since doing this.

Activity 2

Ask your students to ask an older person (parent, grandparent, neighbour, etc.) to teach them a game, song or chant they used to enjoy. They need to know the rules or words and any resources it might need.

Next day, list the games and songs that students brought from home.

Group together students who learned the same game or song. Ask them to prepare to teach this game or song to the class.

Ask them to write out the song or chant or how to play the game on a card.

When the class has learned the game or song, discuss what can be learned from it.

Make notes as you did before.

In future lessons encourage students to read newspapers and magazines to find songs, games, riddles and jokes as a basis for writing their own.

3 Word Games

‘‘Reflection’ is thinking over what happened and seeing how you could do it better next time. After you have tried new activities, it is really helpful to reflect on what was successful and what needs improvement. Make the process of ‘Plan-Act-Record-Reflect’ a part of your daily practice.

Now that you have a good collection of games, you can use them as the basis for learning activities, and as a basis for reflection and growth. (This can, of course, be done with stories as well.)

Here are some word games to try:

Game 1: Bingo
Make your own version using the squares in the same way

Read the students a story they enjoy and ask them to choose two words they like.

Ask each student for their words and write the key words on the chalkboard where everyone can see.

Divide the class into groups of six and ask each group to choose 12 words for their group. These can be different for each group.

Each student makes a bingo sheet by drawing a big square divided into nine small squares (see example below).

Tell each student to choose any nine words from their list of 12 and copy these into the bingo sheet, one word in each square. Students’ sheets will be different, because they can only choose nine out of the 12 words.

One student has the master sheet with the 12 words. They call the words out in random order. As a word is called out each student who has the word must cross it out from the bingo sheet. The first to cross out all their words shouts ‘bingo’ and has won.

Let each group play again with each student taking a turn at calling out the words.

If you want to use the bingo sheets more than once, ask the students to cover the words with stones or counters as the words are called out.

Did the students learn new words? How do you know this?

Sample list of words for bingo:

Beans
Cabbage
Carrots
Cauliflower
Corn
Mangoes
Maize
Oranges
Paw paws
Peas
Spinach
Sweet potatoes

Two examples of bingo cards:

Spinach	Paw paw	Beans
Carrots	Cauliflower	Peas
Maize	Mango	Cabbage

Oranges	Maize	Mangoes
Corn	Cabbages	Paw paw
Beans	Sweet potatoes	Peas

Game 2: Word soup

Make a list of nine words, e.g. parts of the body, rooms in a house, or vegetables. Put this list on the board (next to pictures illustrating the words if you can).

Give each student a sheet of squared paper. Tell them to enter the key words into the squared paper, one letter per square. Tell them that words can go from left to right, or top to bottom. Tell students to fill the extra squares with any letters of the alphabet. (See example below.)

When every student has done this, collect the sheets and mix them up. Now distribute them randomly, and ask students to circle all the key words they can find. Each student knows there must be nine. The first to finish is the winner.

The students can then choose their own subject or area and a word soup from this to give to a friend to play.

Example of word soup

L	**I**	**O**	**N**	**A**	**B**	**D**	**E**
T	**M**	**O**	**N**	**K**	**E**	**Y**	**C**
G	**I**	**R**	**A**	**F**	**F**	**E**	**C**
V	**A**	**D**	**T**	**I**	**G**	**E**	**R**
I	**H**	**O**	**R**	**S**	**E**	**R**	**W**
S	**N**	**A**	**K**	**E**	**L**	**U**	**M**
D	**O**	**P**	**G**	**O**	**A**	**T**	**K**
R	**T**	**C**	**A**	**M**	**E**	**L**	**C**

Words to find in this word soup:

Goat Camel

Lion Giraffe

Snake Monkey

Tiger Horse

You can make this more interesting by giving ten words and asking them Which word is NOT included in the soup?' You can use this game for lots of different words and in different subjects. A blank template for word soup is below. You can add more squares or make it smaller to make the game harder or easier depending on the age and ability of your students.

Teaching Example 3

Ms Mofokeng sang a skipping song when she was a child in Soweto. She decided to use it for teaching her Grade 2 students some words and present-tense phrases in English.

The students first sang it in Sesotho and then she helped them to sing it in English.

She gave each student a piece of paper with a verb (e.g. eat, drink, laugh, cough, jump, run, hop) written on it. She made sure that each child knew what the word meant and how to do the action associated with it.

She allowed each student in turn to mime their action, and the class sang a new verse: 'Antoni, what is she doing? Antoni, she is laughing,' etc.

After the lesson, she thought about:

- what went well;
- what didn't go so well;
- what surprised her;
- what she would change if she repeated the lesson.

What surprised her was how much time it took for the students to learn the

English version but also how much the children enjoyed it. She decided that she needed to give more time to the activity, and introduce fewer new words at a time.

The following week, she used the English version of another skipping song in a similar way, making verses with different kinds of foods.

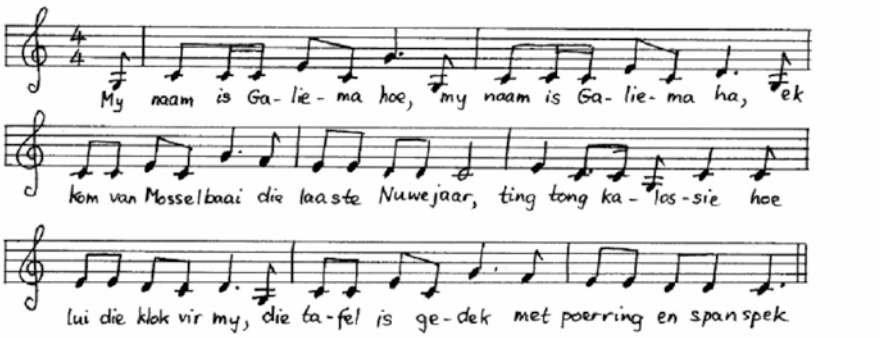
MY NAAM IS GALIEMA HOE

My naam is Galiema hoe! My naam is Galiema ha!
Ek kom van Mosselbaai die laaste Nuwejaar
Ting tong kalossie, hoe lui die klok vir my
Die tafel is gedek, met poerring en spanspek

Jy vra 'n stukkie brood, hy het nie botter nie
Ek vra 'n bietjie tee, hy het nie suiker nie
Ting tong kalosie, hoe lui die klok vir my
Die tafel is gedek, met poerring en spanspek

My name is Galiema hoo! My name is Galiema ha!
I came from Mossel Bay on last New Year's Day
Ding dong kalossie, the bell is ringing for me
The table is laid with pudding and sweet melon

You ask for a piece of bread, he hasn't any butter
I ask for a little tea, he hasn't any sugar
Ding dong kalossie, the bell is ringing for me
The table is laid with pudding and sweet melon



Activity 3

Is there a chant in your class collection that could be changed into the additional language and used to support language learning?

Identify a sentence in the chant where a word (or words) could be replaced by a number of other words in turn. For example, 'She is laughing' could be replaced with 'She is jumping, hopping, running' etc. Each student, or group, can then sing a new verse, with a new word in the sentence.

It will be even more fun if the words or sentences can be linked to actions.

Plan how you will organise your class to sing/chant and act out this 'substitution drill'. (This is a series of sentences, which are the same except for one word/phrase; they are used to practise language patterns.)

If it is not successful, you will need to try a different song, or a different way of organising the activity.

Numeracy: Introducing measurement

1. **What do we know about measurement?**
2. **Measuring heartbeats**
3. **Units of measurement**

Key question for the teacher:

How to explore what students already know about measurement and plan activities to develop their understanding

Keywords: planning; measurement; mind map; heartbeat; prior knowledge; resources

Learning outcomes for teachers:

By the end of this section, you will have:

- used mind maps to find out what students already know about measurement and measuring;
- used cross- curricular teaching to see how subject areas are interlinked
- planned your lessons to meet your students' needs in developing their understanding of measurement.

Overview

We measure lots of things in our daily lives, such as our height, the weight of our vegetables, how far we have walked.

What examples of measurement would you expect your students to be familiar with? Without class-sets of measuring instruments, how can your students work with real quantitative data, so that they understand where the numbers come from and what they mean? And how do you help them make sense of prefixes like 'mega-' and 'milli-'? This section will help you explore all of these issues.

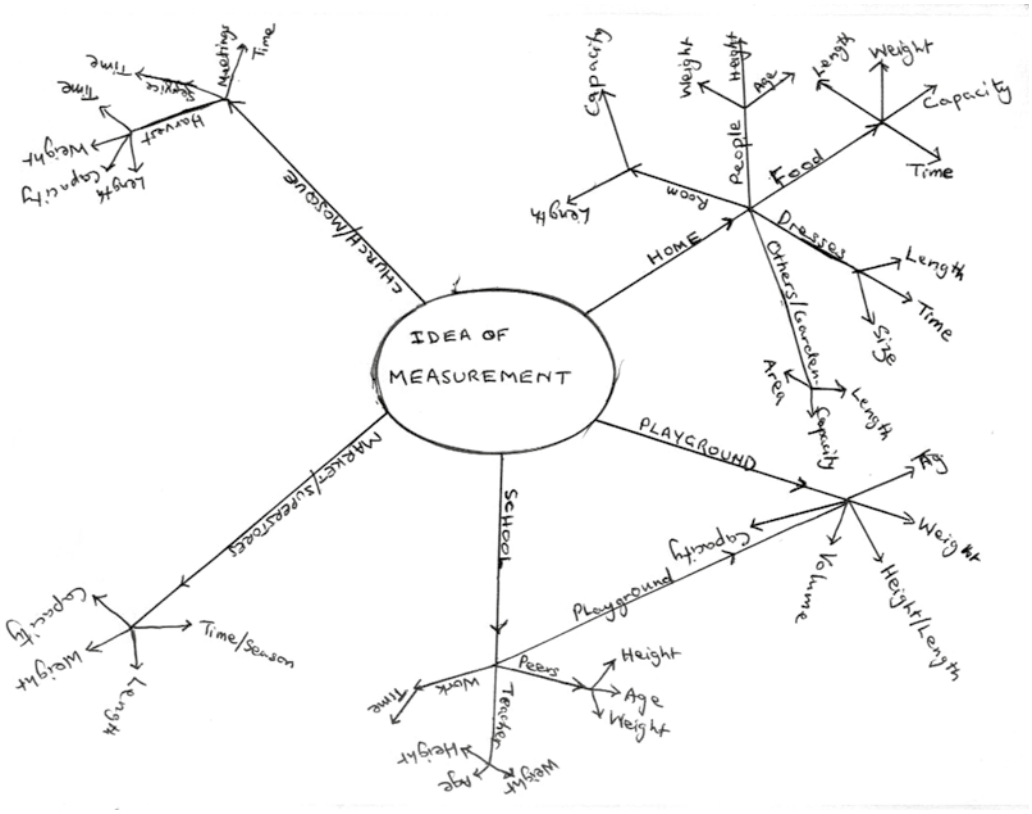
1 What do we know about measurement?

Using a mind map will help you find out what your students already know about measurement in everyday life. This information will help you plan activities that will extend their understanding further. See **Using Mind Maps** in the *Teaching Pack Additional Resources.*

A measurement mind map: Example of students' work

Measurements that are common to the five situations shown in the mind map below are:

- length, surface or solid size;
- weight;
- capacity;
- time.



Teaching Example 1

Mrs Lekan in Nigeria wanted to find out what her students already knew about measurement in everyday life. She had used mind maps with them before, so the students were familiar with the idea. (See Using mind maps and brainstorming to explore ideas in the Teaching Pack Additional Resources.)

Dividing students into groups of five, she assigned the groups a focus for their mind maps: to some, she said 'time'; to others, 'distance', to others, 'weight'.

She asked each group to complete a mind map showing all that they could think of in relation to their particular focus; she reminded them to think of all the different places they might come across measurement – at home, in school, at the market.

After they had worked on this for about 15 minutes, she asked each group with the same focus topic to display their mind maps together.

She gave the whole class ten minutes to look at the mind maps and then discussed the similarities and differences. She listed the similarities and used these as a basis for planning more work on each area.

Activity 1

- Begin your lesson by discussing mind maps and how they work on measurement. Bring them together and display their mind maps or for the first time you could do a class mind map where you write down the ideas your students suggest.
- Discuss with the whole class the similarities and differences between the mind maps. What are the common ideas?
- Ask students to explain any ideas that are not clear and ask them to think of questions they have about measurement. List these and areas they have identified e.g. time, distance. These will help you in planning the next steps.

How mind maps can help mathematics teachers and students

Mind maps can help mathematics teachers to:

- plan topics and lessons in a way that is logical and systematic;
- identify and plan activities;
- introduce new concepts to students in interesting ways;
- promote better understanding of concepts;
- focus students' attention on key aspects of a topic;
- help students prepare for tests and examinations;
- organise information that students are able to identify and relate to;
- help find out student's misconceptions;
- assess students' understanding of concepts and topics;
- plan extra support for some students.

Because concept maps can be drawn by students themselves, they are a useful tool for student-centred education.

Mind maps can help students to:

- summarise their knowledge of a topic and give an overview;
- help order topics according to their importance and relevance;
- link new ideas with previously learned material;
- show prior knowledge of a topic;
- reduce doubt so that the student knows what to study and what to leave out.

2 Measuring heartbeats

Consider asking a science teacher to help you show your students how to measure their heartbeats or have a go yourself using to help you. This is an excellent introduction to actual measurement, as it can be done without any instruments other than one watch with a second hand for the teacher or student to use. It can also be integrated with a number of enjoyable exercise and recovery activities, and provide a good basis for cross-curricular work, for example, a 'healthy bodies' week. Practical activities such as this will capture students' attention and involve them.

Teaching Example 2

Mrs Gwala explained to her students how to measure their heartbeats by holding their left wrist with the middle fingers of their right hand and counting the pulses. She asked them to practise this for a few minutes. Her students were very excited to do this – none of them had felt their pulse before. Mrs Gwala made sure that every student could find the pulse, either at the neck or the wrist. They all measured their pulses whilst sitting and noted this down, or remembered it.

She then asked them to stand up and sit down quickly ten times and then feel their heartbeats again. The students were surprised to see that they had become faster. She asked them to count their heartbeats for 10 seconds and then multiply by 6 to get the rate per minute.

Mrs Gwala asked the students to think why these changes might happen and listed their ideas on the board, e.g. they needed more energy. She was pleased with their thinking and saw them trying this out in the playground during break time.

Activity 2

Before the lesson, make sure you can measure your heart rate at your neck and wrist. Practise showing your family and friends how to do this before you try it with your class!

Show your students how to feel the pulse at the neck and wrist, and make sure every student can feel the heartbeat in at least one of these two locations using the middle finger.

Begin the lesson by telling your students that they are going to do an experiment. During the experiment they must sit completely still, and in absolute silence.

Using your watch (or any clock that shows seconds), ask students to find their pulses, and then count how many beats they feel during one minute. Ask them to write down their heart rates but not to talk.

Next, try some moderate exercise (e.g. walking for two minutes) and ask them to take their pulses again.

Wait a minute and ask them to take their pulses again. Record the results.

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3 Units of measurement

Understanding the importance of 'units' and the ability to read from scales is central to effective work in measurement. Later sections in this module will deal with length, weight and time: for each, it is important for students to understand the correct unit, and how to read correctly from the scales on measuring instruments. This part explores how you can plan activities to help students develop these skills. By using practical activities related to their everyday lives, students will see a purpose to the work and be more interested.

Teaching Example 3

Mrs Gwala had spent some time working on different units of measure with her students. She felt that they were now getting confident in reading from the scale on their rulers, and from the weighing scales she had brought from home. They had talked about centimetres and millimetres and could show these on their rulers, and explain the relationship between them. They knew about local distances between towns, and that these were measured in kilometres. Mrs Gwala was pleased with the progress that had been made, and wanted to make sure the students could now see that 'milli-', 'centi-' and 'kilo-', could be applied to all measurements and units.

Term	Meaning	Weight	Length	Volume
unit	The basic measure	gram (g)	metre (m)	litre (l)
kilo	1,000 times the unit	kilogram (kg)	kilometre (km)	-
centi-	1/100 part of the unit	-	centimetre (cm)	centilitre (cl)
milli-	1/1,000 part of the unit	milligram (mg)	millimetre (mm)	millilitre (ml)

Units of time

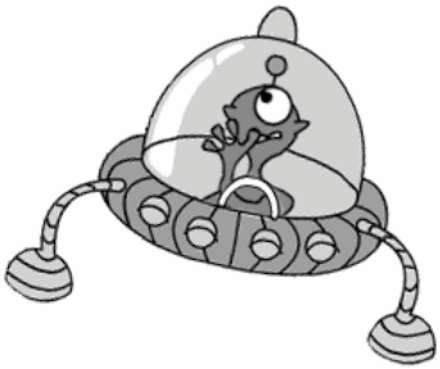
1 minute = 60 seconds
1 hour = 60 minutes
1 day = 24 hours
1 week = 7 days
1 fortnight = 2 weeks
1 year = 12 months = 52 weeks = 365 days

How do you think these traders at a market in Knysna measure their goods?

She decided to do this through 'nonsense' measures – making up playful units, and asking questions about them. After her students had grasped what she was doing, she allowed them to make up their own 'nonsense measure' questions, which they enjoyed greatly. Mrs Gwala was sure at the end of this that they knew well what 'milli-', 'centi-' and 'kilo-' meant, because they were able to explain the differences in their discussion.

Shape, Space and Measures – Measures

Space and Measure



This report has just arrived from Deep Space, some bits are missing.

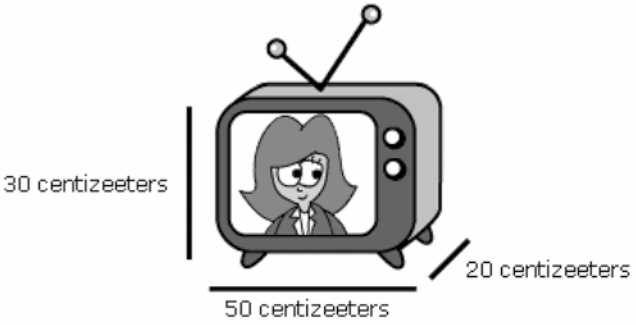
Can you work out what should be written in the spaces?

On my last visit to Earth, I made many measurements. I visited a large city. Its area was 3.5 kilozeeters. That is the same as _____ zeeters .

The people there enjoy slurping brown liquid through holes in their faces. They usually slurp 9773 milligurgles, which is the same as _____ centigurgles, or _____ decigurgles, or _____ gurgles.

Everybody is very heavy. Even a little Earthling weighs about 52 kilothudz, which is the same as _____ thudz, or _____-_ millithudz. The short Earthlings are about _____ decizeeters high, which is the same as 82 centizeeters. The long ones are about 12 decizeeters, or _____ centizeeters high.

They spend all day shouting at boxes like this one...



The volume of this box is _____

Activity 3

Plan this activity with at least one other teacher at your school.

Make a list of all the measuring devices you have access to that could be brought into the school (such as rulers, weighing scales, measuring jugs or spoons, etc.). Devices that have a scale are particularly useful. How do people selling vegetables in the local market measure what the customer wants?.

Think of activities that will allow students to practise using these devices and recording measurements, to develop their confidence and accuracy.

Think about how you will introduce key terms: units, measurement, scale, distance, weight, volume, time, and what your students will do to understand and remember these terms.

Decide how you will organise your students, how much time to allow and the resources you will need to carry out these activities.

Plan your lesson, making sure that, as well as recording the 'number' from the device or scale, students also record the units and what is being measured (e.g. distance, weight, volume, time).

Carry out this lesson. If possible, ask the teacher who helped you plan the activity to observe all or part of the lesson, and discuss it with you afterwards.
What worked well?
What was difficult?
Were there any unexpected outcomes?
How could you assess your students' understanding of how to measure?

Science: Everyday forces – investigating movement

1 Ecosystems

2 Hunters and the hunted

3 Knowledge of local animals

Key Question for the teacher:

How can you help students investigate how different living things survive?

Keywords: properties; predators, prey, adaptions, observations, projects, animals.

Learning Outcomes for the Teacher

By the end of this section, you will have:

- used student observations of ecosystems and species to explore animal adaptions and behaviours;
- provided opportunities for students to share their knowledge ways of demonstrating properties of matter to students and helped them to classify materials around them;
- undertaken project work with your students

Overview

Unlike green plants, which can manufacture their own food, all animals have to find and eat plants or other animals to survive. Hunting animals (predators) are adapted for finding and catching food in many ways. Animals that are hunted (prey) are also adapted to avoid being found, caught and eaten. Students are often fascinated by studying feeding.

In this section, we look at ways of encouraging students to ask 'Why?' questions using animals found locally. We also look at how to structure and record students' observations of ecosystems and species. Students are often fascinated by studying feeding relationships and adaptations.

1 Ecosystems

An ecosystem is the pattern of life and interaction between the living things in a specific type of place. This could be a pond, a stream, a hedge, a tree, a forest, a cliff-face or even a field. It could be as small as life under a rotting log or as vast as life in an inland lake.

Thinking about ecosystems doesn't have to be complicated for you and your students. It is sufficient if students spend time observing and investigating different ecosystems. They should get a general idea of 'what eats what', relative numbers of different species and raise some questions about how different animals interact with each other. It is important to give students time to think of the questions they want to ask; often short discussion in small groups will lead to more focused questions.

Teaching Example 1

A primary school in a squatter camp on the outskirts of Nairobi, Kenya, is next to a small natural pond. One of the teachers took her class for a 'look, see, think' slow walk around the pond.

They realised from the greenish colour of the water that there must be millions of minute algae plants and thousands of threads of spirogyra making food in the sunlight. They saw hundreds of tiny tadpoles, which feed on algae. What might eat the tadpoles? Sifiso had noticed about 15 shiny, brittle, larvae skins (exoskeletons) clinging to the stalks of reeds left behind by new adult dragonflies. Perhaps about ten platanna frogs lived in the pond, eating dragonfly larvae and other swimming insects. A few brown water snakes had been seen and these probably ate frogs.

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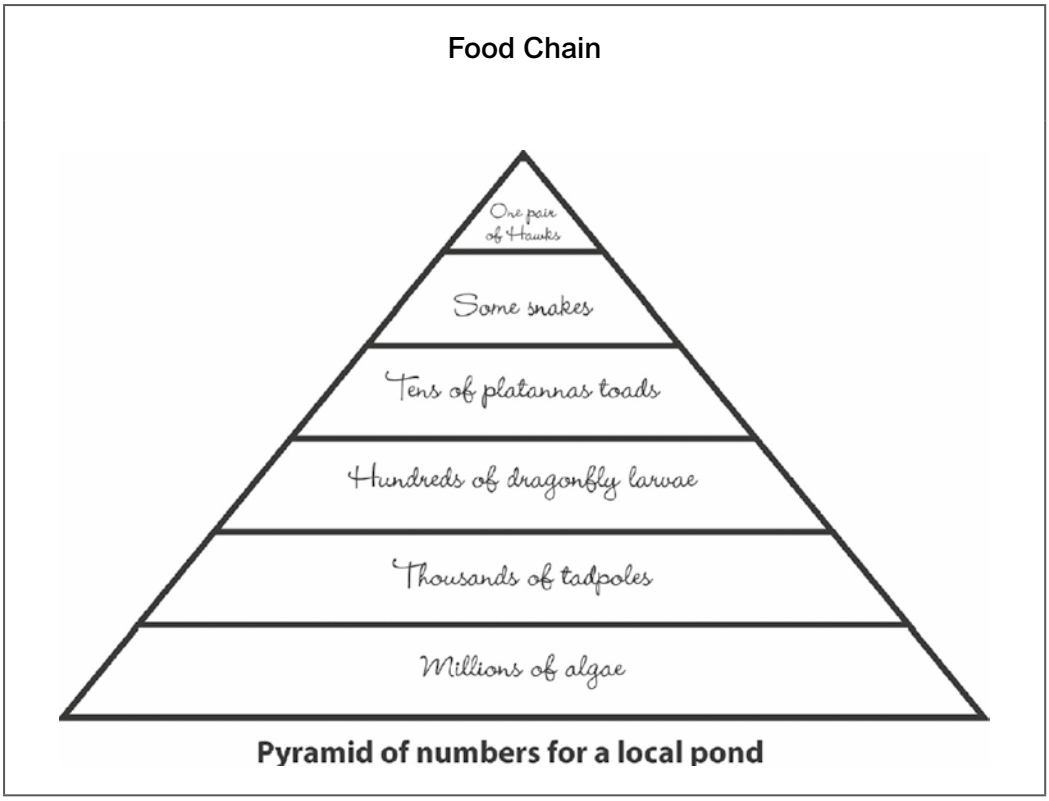

Activity 1

Talk to your class about the idea of an ecosystem. Brainstorm a list of probable ecosystems near the school. See likely local ecosystems at the end of this activity

Divide your class into groups and let each one select an ecosystem to adopt and study for the rest of the year. If there is only one suitable ecosystem near your classroom, everyone can study it. Organise students to take turns to record the observations. Encourage them to ask questions about the animals that live there and how they might interact with each other. What types of living things (populations) would they expect to find and in what numbers? What eats what? How might numbers change during the year? Record these questions and predictions for future reference.

Later, make time to visit the sites with students, to check their predictions. This becomes an on-going group project. Make time every few weeks for visits and reports of new information. In this way, the students' knowledge and understanding will grow over time in a relaxed and informal way.

Groups could keep a scrapbook or journal to record their growing understanding of the way things happen in their ecosystem.

As the project progresses, think about your students' involvement – are they motivated by this activity? Do they enjoy this way of learning?

Likely local ecosystems

Probable ecosystems you and your students might like to consider include the following:

- **life under a small rock or fallen tree trunk;**
- **a nearby tree;**
- **a hedge;**
- **the classroom itself (corner, cupboard, etc.);**
- **the local river, dam or lake;**
- **a nearby forest;**
- **a marsh or boggy area;**
- **a dry barren hillside;**
- **the household woodpile (watch out for snakes);**
- **a clump of bushes;**
- **a compost heap.**

Record what students expect to find in their ecosystem in a table, example below:

Species	Approximate number	Feed on	Eaten by	Eggs or?	Activity	Value
Ants	whole colony		Ant Lion	Many eggs and larvae and pupae	different workers soldiers queen	nuisance clear dead things
Scorpion	Only one	Millipedes Crickets Beetles	Baboon	Live young		sting is poisonous

Write students' suggestions lightly in pencil to be rubbed out when the answers are filled in.

2 Hunters and the hunted

Biologists are fascinated by the way the survival of animals depends on adaptation for successful hunting and the avoidance of being eaten. Think of how claws and pincers have been developed to seize and grasp prey or frighten off predators (scorpions, crabs, cats, the praying mantis etc.).

Other animals construct traps. Think of trapdoor spiders, spiders' webs and ant lion pits in soft sand. Topics to discuss with students or ask them to find out about could include mimicry, camouflage, feigning death, prickles and spines, hard shells, speed, bad tastes and even poison.

In this type of work, it is a good idea to start with animals that students can make accurate detailed observations of. Students can then discuss how their observations of behaviour and structure help these species to survive as predators, prey or both.

Teaching Example 2

Mr Mulele's class kept (and later released) an injured chameleon that the students had rescued from a dog in the school grounds. It recovered from its injury at the back of the classroom on a branch in a vase by the window. The students enjoyed watching the chameleon shooting out its tongue to catch flies.

Mr Mulele asked his class these questions:

- How is the chameleon adapted to be a hunter?
- How is the chameleon adapted to avoid being eaten by other animals (hunted)?

He gave them two days to think about these questions and to watch the chameleon to help them answer the questions. He suggested that they look at how it moved, its eyes and its behaviour when it was threatened. Some of his older students made some notes on their observations.

After two days, he divided his class into groups of five/six students and asked each group to choose a leader. He asked the groups to discuss the questions and to draw up a list of at least two features that help the chameleon hunt other animals and two features that help it avoid being eaten by other animals.

He gave them 30 minutes for this discussion and during this time he went round all the groups encouraging them to use their observations about the chameleon. He also emphasised that the group leader should make sure that each student in the group had a chance to speak.

After half an hour, each group gave one observation to the class. Mr Mulele recorded all their observations on the board as a table.

Hunter	Both	Hunted
long projectile tongue	changes colour to hide from both prey and predators	darkens and puffs up when threatened
swivelling eyes that can be aimed forward to focus on prey	can move slowly – hardly being seen – by using its toes to grip and tail to grasp	hisses and shows bright yellow inside of mouth
	eyes that can swivel independently	swivelling eyes can scan for danger all around

The following month Mr Mulele brought a praying mantis to the classroom.

Again, students observed its behaviour and the different ways in which the insect is adapted for survival. This time the students needed less prompting from the teacher to notice significant features.

Activity 2

Praying mantises are very common in Africa. They can easily be kept safely in the classroom for a short while. See keeping Praying Mantis in the Classroom at the end of this activity. If fed live insects, their hunting adaptations and feeding behaviour can be clearly observed.

Keep an exercise book or large piece of paper near to the container as a journal for everyone to write in. Students can record any interesting observations, descriptions of behaviour, and drawings of adaptations that help the mantis hunt its prey. Over a few days, allow different students in the class to spend time recording their observations. Questions you might give to start the students observing could be: How often does it feed? What does it eat? How does it disguise itself to catch prey? How quickly or slowly does it move?. Also, ask students if they can discover whether they have caught a male or a female praying mantis. How can they tell? How are these features helpful to the male and female?

Encourage students to write questions as well as observations.

Other students may be able to answer the questions. In this way, students can build up collective knowledge about the praying mantis.

You can extend this work by catching a male and female praying mantis and keeping them in the same container.

Some of your students might want to catch their own praying mantis to learn more about it. They should be able to look after it and make further observations. These students could give a presentation to the class about what they have learned.

Keeping a praying mantis in the classroom

Keeping a praying mantis as a temporary guest in the classroom is very easy. The larger ones with bigger abdomens (full of eggs) and shorter feelers are the females. The thinner more delicate ones with longer feelers are the males. They are better adapted to flying in search of females. The females tend to stay on the same plant and wait for males to approach them.

It shouldn't be difficult for students to catch one in a plastic bag. A good cage can be made using wire gauze over a wooden or stiff wire frame. What also works well is to cut off the bottom of a clear plastic 2-litre cool drink bottle. Make a series of holes near the top using a sharp nail to let in air. Put some sand into the lid of a box and stand a leafy twig in a small jar of water (see diagram below). Trap the praying mantis under the bottle and use the screw-on cap to put in a regular supply of small, live insects such as flies, moths and grasshoppers. The students will enjoy watching the mantis trap and eat its prey. If you have a male and a female in the same container they may well mate, but be prepared for a bit of drama. The female will usually lean back and start to cannibalise the male once mating has taken place.

After mating, you might see the female laying her eggs in two neat rows in a frothy substance that soon dries and hardens and is paper-like.

Release the female after a while. Keep the egg case under observation and your students might be lucky enough to witness the hatching of the tiny, blackish praying mantis nymphs. They need to be released, as it isn't easy to feed them in captivity, but notice how the abdomen is curled up over the back in a characteristic way.

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3 Knowledge of local animals

Sadly, much of the local knowledge of the natural world is in danger of being lost in modern times. It is seen to have little or no value. Perhaps local primary schools could take responsibility for reviving interest by researching and recording such knowledge and understanding. You might find the additional resource useful in the Teaching Pack Additional Resources: Researching in the classroom.

Students at a teachers' college discovered that George, the man who worked as the gatekeeper, was a wonderful resource due to his extensive knowledge of the local natural world. But all his knowledge and understanding was in his head and would probably die with him. See the following examples of local knowledge

Local knowledge

At Kabwe College of Education, teacher training students discovered that

George, the man who worked as the gatekeeper, was a wonderful resource about the local natural world – a true naturalist.

If George was shown a pouched squirrel, he would know that it harvested and stored seeds and grain (much like a hamster), and had a specific berom name for it that no student knew. He could tell all sorts of fascinating facts and folklore about the animal. For example, he told how seven years of drought can be predicted when the pouched squirrel is taking the trouble to chew the palm nuts so as to carry them in its cheek pouches to be stored safely.

He also knew that the antelope could see directly up through the spirals of its horns to the exact tip. You can check this if you look down from the top of a mounted set of horns. There is a direct line to the eye socket. We didn't really believe him when he told us that trees communicated directly with the buck, sending them on by saying 'you have taken enough here, now move on'. Years later, telling some nature conservation experts about this odd notion, they laughed, saying that it had recently been discovered that certain local trees do in fact produce bitter-tasting chemicals in response to grazing and that these are even passed on to neighbouring plants, causing the buck to move on to a different clump of plants.

Another example of local knowledge:

The story of the old woman who knew her ants

A very famous African entomologist, S H Skaife, tells an interesting story of how, during World War 2, there was a shortage of tea. People decided to try to cultivate the wild rooibos tea plant from the Western Cape Fynbos.

They offered a reward of one pound (a lot of money in those days) for every matchbox full of rooibos seeds. The seeds were very small and the local children soon gave up trying. Only an old woman was successful.

Every week she brought in a matchbox full of seeds and collected her pound. She would tell no one how it was that she managed to do what no one else could.

We need to encourage our own students to become naturalists. We have already explored the value of giving students time to undertake detailed observations of ecosystems and different species. Think about how exciting lessons can be if we value our students' knowledge and allow them to make decisions about their own learning.

Teaching Example 3

A science education lecturer was disappointed to observe a Grade 5 lesson on birds that really didn't work well. The student teacher followed the curriculum and textbook of the time, but the students seemed bored.

Reflecting on the failure of the lesson to catch the students' imaginations, the teacher and lecturer realised that any three-year-old pre-schooler would already know that birds had wings, feathers and beaks and that they usually made nests and laid eggs.

Later, the lecturer and the student teacher, Mumba, planned a very different lesson where they took in artefacts (such as bits of a broken swallow nest, assorted feathers, the discarded shell of a hatched chick, a dead vulture that had been hit by a car that morning near the school) and pictures of local birds. They put the items on the front bench and left groups of students to choose something and tell their classmates what they knew about that thing. What could they tell us about birds?

What a different lesson! We couldn't stop them talking. They had so much to tell. They told us things we didn't know, like: swallows mate for life, raise a few broods each season, and sometimes, on dead chicks (baby swallows) thrown out of the nest, you find strange bloodsucking tick-like things that can run very fast. Students went on right through lunchtime telling us all the interesting things they knew about local birds and discussing their own unanswered questions. These were recorded for answering later.

Activity 3

Here, you and your students plan and draw up a large table on a poster to record information that students find out about all kinds of local animals. It could have column headings such as:

Specific name of animal				
Type or kind of animal				
Drawing or picture				
Predator of				
Prey of				
Body adaptions				
Action adaptions				
Beliefs and sayings				
Other interesting facts				

The table is built up and added to over time. Encourage your students to add questions to the table. If possible, use different colours for questions and answers. Blank spaces will indicate where further research is needed. You might ask different students to take responsibility for finding out about particular animals, but encourage teamwork. If you have a multigrade class, older students could assist younger students with the recording. You will need to plan regular times to allow students to add their findings to the table.

At the end of the term or year, the information can be transferred to a large book to be kept as a record for future reference.

Arts: Practical activities with local crafts

1 What do we know about local crafts?

2 Craft work

3 Making pots

Key Question for the teacher:

How can you help students be creative?

Keywords: Crafts, research, presentations; practical; culture

Learning Outcomes for the Teacher

By the end of this section, you will have:

Found out what students already know

- Organised your students into small groups to undertake research activities
- Planned practical activities to help students plan and evaluate their own craft items

Overview

The range of crafts in your local area may include such things as beadwork, pottery, sculpture, painting and fabrics. The majority of students will already have knowledge about local crafts and some students may even be very skilled at doing some of them. It is important to find out what students already know, and use this as the base for planning activities around local crafts. In this section, you will encourage students to share and develop their understanding of the value and uses of these traditional crafts. One important way is to allow students to make their own craft items; this provides opportunities for them to plan and evaluate their work.

1 What do we know about local crafts?

The traditional crafts of the community will have more meaning for your students if you involve them doing some of these crafts. This part explores what your students know about local crafts and the people who do them in a practical context. It gives you an opportunity to develop your questioning skills and shows a way to help your students raise their own questions. You might find the additional resource useful in the Teaching Pack Additional Resources: Using questioning to promote thinking.

Painting is one way that communities can record events that have happened. It is also a medium that uses the imagination and so is a good way for students to express their ideas and feelings.

Teaching Example 1

Mrs Moyosola from southwest Nigeria was teaching painting. She wanted to encourage her class to paint and draw. She decided to begin by asking her students to look at some pictures by modern Nigerian painters from their region.

She had one copy of each picture that she put on the board. She asked the students to look at these and say what they liked and disliked. She asked if any of them painted or drew and, if so, what and when. Many did not have access to paper and pens but said they did draw pictures in the sand outside their homes. They were sad that these pictures did not last.

Mrs Moyosola asked her class to think about what they would like to paint or draw. She gave them paper and pencils and allowed two art lessons for them to draw and paint. Some painted pictures of their own and others did versions of the modern Nigerian paintings.

Mrs Moyosola displayed these for everyone to share.

Activity 1

Collect together some examples of local crafts. You could use the same example for all your groups or a different one for each group.

Organise your class into small groups of four/five students.

Ask each group to discuss what they know about one craft. Ask them to start by answering the following questions (write these questions on the board).

- What is it?
- What is it used for?
- What was it used for in the past?
- How is it made?

Give students 10–15 minutes to discuss these questions and to think of one more question to ask about the craft. You could ask older students to draw the craft and record their ideas on the drawing. Then ask them for some of their answers. You might find the additional resources useful in the *Teaching Pack Additional Resources;* **Teaching large/multigrade classes**

2 Craft work

Discussing local crafts or traditional weapons or dress is very motivating for most students as they can see the relevance of these to their lives. When students are interested, it will also be easier for you to manage their behaviour. If you also use more interactive ways of working, such as pair and group work, students can achieve more by working together to build new knowledge.

Teaching Example 2

Ms Dora Edu-Buandoh wanted her students to find out more about tools used traditionally in farming. She decided to give them the opportunity of looking at pictures and artefacts, and writing about what they had seen. But first, she had a surprise for her class. She had asked an older member of the community who had a collection of old tools to bring in some of his collection to the class.

The students really enjoyed the visit and they were able to gather a lot of information about the tools to add to their research project. The old spade that had belonged to the visitor's father's grandfather excited them all most because of its great age.

After the visit, Ms Dora Edu-Buandoh divided her class into small groups and gave each group a picture – some groups had the same picture as she did not have any others she could give. She explained that they needed to discuss the pictures and then write a short story about how the tools in each of the pictures were being used. She explained that they could use the question sheet to start them thinking about what to write about. See the example here. The students used their notes from the visit and also some books that Ms Dora Edu-Buandoh had collected over time. They worked together in their groups to collect the information and write their stories. At the end, each group shared their story with the class.

Activity 2

Ask students, in pairs, to choose which craft items they want to research more.

- Each pair can choose between looking for the information in books or interviewing a person in their community as their starting point.
- Next, ask the students to think of the kinds of questions they need to ask to guide them to the right information, such as: 'What is the traditional use of this bowl?' Discuss some suggestions and decide together if they help focus on the purpose of the research. Each pair selects their questions.
- Each pair conducts their research using their questions. You will need to provide information books or extracts from books and magazines for those using books as their source of information, and you will need to give the

others time to conduct their interviews. If they have trouble finding information with one method, they may need to use the other as well. Allow time for them to do the research and give them guidance as they work if they are struggling. Ask each pair to make a poster to present their key findings. Assess your students' work using the sheet here.

Assessment sheet for research presentations

Name of student: _____ Date: _____

Class: _____

During the presentation the student:

- Showed a real or drawn or photographic example of the craft item.
- Gave the craft item a name.
- Answered the research question.

Feedback comments:

_____

_____

_____

_____

_____

Teacher: _____

3 Making pots

When studying a practical topic like craftwork, it is important that your students have an opportunity to work with the materials themselves or at least see someone doing the craft.

Teaching Example 3

Mrs Khendi was teaching a lesson on traditional pots. She started by asking students to talk about their experience of traditional pots and utensils. The students had some interesting knowledge about their use in the harvest period and at wedding ceremonies and religious festivals.

Students also spoke about the different pots they knew, such as one to keep bracelets in. While they were talking, Mrs Khendi made a list of the traditional pots on the chalkboard.

Mrs Khendi had brought in a selection of pots that she had collected from people in the community. She told the students to bring in any that they had at home to share to see the shapes etc.

Activity 3

Next, she showed them how to make a small pot out of clay that she had collected by the river.

- She gave each pair some clay to shape a pot and decorate it in any way they liked.
- She encouraged them to look at the local designs and, from this, develop their own ideas.
- The students' pots were left to dry at the side of the classroom where everyone could see them

Below is an example of how to make pots in the classroom.

Clay can be made into vessels because of its unique physical properties. The molecular structure of clay means it has a 'plastic' quality, allowing it to be shaped into an infinite variety of forms. Subject these forms to sufficient heat and they are altered into a rock-hard material, making them both functional and durable. Clay is composed of the most common elements found in the Earth's crust and, as a result, is found throughout the world, beneath our feet. Clay was put to use by nearly every culture, often with extraordinary results. Pots can be made with bare hands using clay lubricated with water.

The potter, bearing down on the clay with their hands, then centres the clay. The fingers are used to first form the floor of the pot and then, to pull the walls of the clay up, typically into a cylindrical shape. Then the potter gently shapes the pot into the desired form, using the fingertips, as the wheel continues to spin.

Once fully formed, the pot is cut off the wheel head with a wire and removed. The process is then repeated with the next ball of clay.

An example using pinch pot construction

With pinching gestures, you can mould clay into objects such as animals or make a bowl, a pot, a cup etc. While this form of pottery seems basic, you can get a feel for the clay you are working with and you will get to know the limits of your clay. (Does it bend easily? Does it dry fast? Etc.)

To make a bowl, a pot or a cup, begin with a ball of clay.
Push your thumb into the centre. Then pinch up the walls.

Turn the piece as you pinch.
This will help you to keep an even thickness in the walls of the piece.

Gently pat the bottom on a flat surface to create
a flat spot on the bottom of the piece.

Example of traditional pot – an African bracelet bowl

This bowl is traditionally used for storing bracelets.

Adapted from: http://www.hobokenpottery.com, http://www.jhpottery.com and http://www.jhpottery.com/tutorial/pinch.htm

- Discuss a presentation of the pots that have been made.
- Agree a date for this and the venue
- Invite other classes in the school or parents
- On the day, the next class or the school or parents are invited to come and see their work. Each pair/group stands with their work and explains it to visitors. The oral presentations are held after people have looked at the displays etc.

Life Skills: Exploring students ideas about healthy living

1 What do we know about eating well?

2 Healthy Habits

3 Learning from the community about health

Key Question for the teacher:

How can you find out what students already know about healthy living and develop it further?

Keywords: Group discussion; story telling; writing; traditional healthy practices; prior knowledge

Learning Outcomes for the Teacher

By the end of this section, you will have:

- used class and group discussion to find out what students already know
- learned how to build on students' prior knowledge;
- used local resource people to motivate students to learn.

Overview

When introducing the study of healthy living into your curriculum, you will need to be sensitive to the setting in which you teach. This section includes investigating your students' prior knowledge – where they get ideas from and what knowledge they bring to the classroom – and using this to develop their thinking about healthy living. By recognising your students' knowledge and how competent they are, you will build up their self-esteem.

The activities ask you to use group discussion, practical tasks and local people to explore and deepen your students' knowledge about healthy living.

1 What do we know about eating well?

Your students need to know what foods are best for them, but just telling them is not enough. Here, we look at more interactive ways to help them learn and understand.

Importantly, they may already have some ideas about the topic. To find out what these are, you could start your lesson by:

- introducing the topic and asking them 'What can you tell me about …' and noting down their ideas;
- organising them into pairs or small groups to talk about the topic and giving them some open-ended questions to guide their discussion;
- asking them to give their responses, and listing the key ideas you want to take further.

Having found out your students' prior knowledge, your planning – and therefore your teaching – will better match their needs. See questions to promote thinking at the end of this Teaching Pack.

Teaching Example 1

Mrs Shivute, in Tabora Primary School in Tanzania, found that her class liked talking about food, so she asked them to list all the foods they liked.

She asked them where the foods came from originally – plants or animals. In groups, they cut pictures of food from old magazines that Mrs Shivute had collected and kept in her classroom and sorted them into different food groups. Here is some information on types of food which will be helpful for teaching.

Types of food

It is important to eat and, if possible, to eat a balanced diet. Foods can be grouped in many different ways and here is one that is commonly used in Africa. It lists four basic food groups, and each one helps us in a different way:

1. Grains – this includes food like bread, rice, maize and fufu. Eating these gives us the energy to do physical work. Grains, which are carbohydrates give us energy.

2. Fruits and vegetables – these are important because they give us the vitamins and minerals we need to be healthy. Eating them helps us stop getting ill.

3. Meat, chicken, fish, eggs, beans and nuts – all these have protein in them. Protein helps build muscles. You need protein to grow big and strong.

4. Dairy foods – this includes milk, cheese, and yogurt. These types of food have a lot of calcium. Calcium is important because it helps build strong bones and teeth. Eating a mixture of these foods gives us good nutrition. Eating only one of these things every day can cause health problems. However, some food is better than no food. Many children like to eat sweets and sugar. This is fine in small amounts, as it gives us energy. But too much sugar is bad for the teeth because it can cause tooth decay. Too much sugar can also make us fat.

Activity 1

- Ask the students what they like to eat. They can draw pictures or find pictures in old magazines if you have them.
- Ask the students, in small groups, to share their ideas about what types of food are better for them than others.
- Ask each group to share one idea and list these on the board.
- Using their ideas as a starting point, explain the different food groups and how each helps us. Try and find some localised foods to use in this activity or bring some real examples into the classroom.
- Ask students, in their groups, to match pictures to food groups. Ask them to discuss why the different foods are good for them and what they provide.
- Ask each group to write five questions about different food types. Have a class quiz – each group asks their questions in turn and others answer.
- Finally, ask the groups to make food group posters or displays, using their drawings and pictures. You could also use samples or empty food packets. Leave these in the classroom for all to see.

Cardboard box display

Pin display work on the sides of the box

- Sew or tape cardboard sheets together to make a box.
- A box can show eight sides.

Cardboard box display

Pin display work on the sides of the box

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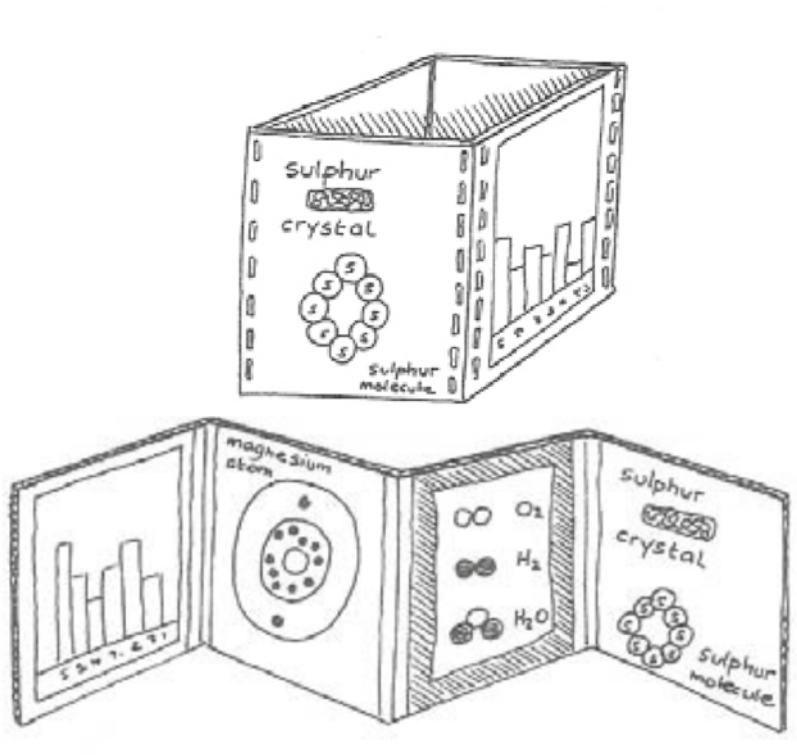
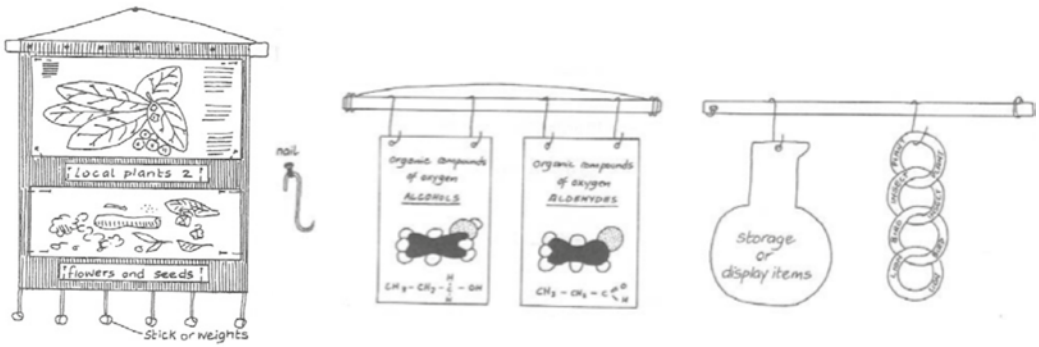
- A box can show eight sides.



Display beams and hooks

- Make a beam supported by two nails or loops of wire that can be hung on the wall, or suspended from a fixed beam.
- Hooks or wire allow easy and swift display.



Display charts

- Display charts can be made from durable cement bags, cloth, cardboard boxes, sleeping mats and blankets.
- To make the chart hang flat, attach a strip of wood to the top and either another strip of wood or weights to the bottom.
- Strips at top and bottom will strengthen the chart and make it last longer.
- Attach items to be displayed to the chart with office pins, cactus needles or sharpened matchsticks.

2 Healthy habits

You have introduced your students to some ideas about food and nutrition and given them the opportunity to contribute their own ideas during the activities.

However, in talking about healthy living, you also need to encourage them to develop healthy habits, using what they already know. By using discussion you can encourage them to think about their own daily habits and identify ways to improve them.

Possible discussion topics are:

- exercise;
- eating as balanced a diet as possible;
- keeping food safe;
- keeping clean.

Organising a discussion needs careful planning. Where will the groups work? Who will be in which group? You might want groups where there is a good mix of personalities to help discussions and someone to act as leader.

To encourage students to participate, set the groups three or four questions. One or two can be easy to answer – e.g. Name three healthy habits – and the others should encourage students to explain their ideas – e.g. Which habit do you think is the most important? Why do you say this? It is important that they respect other ideas and listen carefully to each other.

Teaching Example 3

Mrs Aketch wanted to develop her students' ideas about healthy living. She decided to organise discussions on a different topic, one a week for three weeks.

For each discussion, she introduced the topic using pictures or stories and asked some simple questions to start them thinking. Then she put them into small groups of four or five to discuss a related topic, e.g. why do we need to keep as clean as possible?

As the students were talking, she would go around listening and sometimes joining in and helping to move discussions on.

After five or ten minutes of group discussion, she asked each group to say what they had talked about and explain their ideas.

Finally, with the students, she wrote a list of good practices on the board for them to remember and record. The next day, she asked them to look at the list again and suggest which they thought were most important.

Then, Mrs Aketch gave the students next week's topic and asked them to think about their ideas in advance.

Activity 2

With your own class of students, how would you organise a group discussion on healthy living? See Keeping Food Safe- Why we clean our surroundings. Good Hygiene exercises at the end of this activity.

- Choose a topic to discuss or make a list for them to choose from. Plan your introduction.
- Think how they will work – in pairs, groups or as a whole class? Design the task – either discussing the answer to a question or ask your students to plan an activity to keep healthy. Prepare your instructions. How will you check that they understand the task?
- How long will they talk for? 10–15 minutes or more? What will you do while they are talking?
- At the end of the discussion, ask them for their ideas. Think of questions you might ask to help them. How many people will you ask? Plan how you will summarise their best ideas, perhaps by drawing a mind map. See Using Mind Maps and Brainstorming in the Teaching Pack Additional Resources.
- Discuss with the students how they will remember and use these ideas. Use these questions to plan your lesson on a healthy living topic. After the lesson, ask yourself how well it went and what you would do differently next time to make it more effective.

Keeping food safe

To keep food safe, there are a number of things you need to think about. Firstly, foods can go bad or rot. These include most vegetables, fish and meat, but some take longer to go bad than others. They go rotten when they have been left alone too long. When they rot, they start to smell awful, and if you eat them they can make you sick. To stop fresh food from rotting, it is good to keep it as cool and dry as possible. Another way to stop fresh food rotting is to preserve it. This involves drying the meat, fish or vegetable either in the hot sun or over a fire.

Secondly, some food, especially food in cans, can go bad if it is kept too long and not stored properly.

Thirdly, some food, especially meat, can make us sick if it is cooked once and then heated up again but not reheated thoroughly. It is best to only cook what you are going to eat on that day. If you do heat up cooked food, make sure it is thoroughly heated through.

Finally, animals including many insects also like food, but if they touch our food they leave germs that can give us diseases and illnesses. Try and keep your food covered up. If you have a box or container to keep it in, this is best.

Why we clean our surroundings

We clean our surroundings to protect us from dirt and diseases. People can get ill from coming into contact with many different things. These include:

- animals and insects;
- rotting food;
- rubbish;
- animal and human faeces;
- chemicals;
- dirty clothes.

For this reason, it is good to clear these things away from where we live, eat or sleep. You can do this easily by cleaning your surroundings every day and collecting the rubbish and dirt in one place away from where you stay.

Good hygiene practices

There are many kinds of good hygiene practices you can do every day. The reasons for these are to keep us clean and to protect us from picking up illnesses.

Some good practices include:

- washing ourselves every day if possible;
- cleaning our teeth every day if possible ;
- washing our hands before eating or cooking;
- washing our hands after going to the toilet;
- keeping our house, clothes and surroundings as clean as possible;
- not going to the toilet near the house or kitchen;
- not leaving food lying around in the open.

3. Learning from the community about health

There are many things for children to know about if they are to remain healthy. Some of these they can learn in school, but many things they can learn at home or in the community.

To encourage them to learn more from the community, you can devise ways to help them find out who they can learn from. This will motivate them to want to learn. One way to encourage this is to give the children homework where they ask their parents or grandparents about something. How would you help the children do this? For example, what information will they gather? What questions will they ask? How will they record the information? Another way is to invite people from the local community, who know about local healthy practices, into the classroom.

Teaching Example 3

Mr Maina asks Mrs Mueni to visit his class to talk about local food. Mrs Mueni is the wife of the local chief and every year she visits schools to help the children learn about how food is cooked and stored.

She takes cassava flour, maize meal, plantain, dried fish and meat to the school and she tells the students about cooking these foods and drying them in the sun.

They identify all the foods that are available locally. The students are excited about the visit and listen carefully. They enjoy tasting the small sample of fried plantains she cooks for them.

Mrs Mueni talks about the grain harvest and how long the local store will last and the students find out how other local food is grown and stored.

Mr Maina saw how the new learning experience motivated his students as many of them come in the next day telling him how their parents cook and store some foods.

Activity 3

This activity is about planning and carrying out a lesson where you invite a local expert into your class. To plan this effectively, you need to think about the following:

- Which local resource people could visit your class? What health topic could they cover? For example:
  - a farmer to talk about local food;
  - a traditional healer to talk about beneficial plants and herbs;
  - a housewife to talk about storing and cooking food;
  - a nurse who can explain everyday hygienic practices.

You will need to:

- Plan an activity to check the students' prior knowledge of the topic;
- Discuss with the students what questions they will ask the visitor;
- Tell the visitor what to talk about and for how long; plan a students' activity after the visit to explore ideas further.

In the last activity, you could assess how much the students have learned by asking them to write stories or do role plays to share with the class.

Now carry out your lesson as planned above and think about its effectiveness.

You could develop your students' findings into a class presentation for the school assembly.

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