

TESSA

Teacher Education in Sub-Saharan Africa

Teaching Pack No.15

Upper Primary

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15

Literacy: Ways of presenting your point of view

1. Expressing ideas and feelings
2. Debating
3. Letter writing

Key question for the teacher:

How can you help students become confident and thoughtful presenters of ideas?

Keywords: feelings; viewpoints; debate; letter; newspaper; inclusion

Learning Outcomes for Teachers:

By the end of this section, you will have:

- Supported students in expressing their points of views in speech and in writing;
- Developed your ability to help students understand other people's situations, feelings and points of view;
- Used discussion to explore inclusion issues.

Overview

This section focuses on ways we express feelings and present points of view. It is important that teachers and students are able to do this with confidence, both in speech and in writing, in order to participate in decision-making in the family, school and wider community. As a teacher, you have an important role to play. You need to be able to argue your case within the school for such things as resources and ways of working, and also you need to support your students as they develop these skills.

It is important that all students feel included in the classroom and community, regardless of their state of health, home circumstances or any disability.

1 Expressing ideas and feelings

This part explores ways of working that will allow students to express their feelings and explore ideas about many things, including their personal lives. It looks at how to manage conflicts and frustrations more effectively.

Often, when starting topics that touch on sensitive issues, it is helpful to let students explore their ideas privately first. Writing thoughts down concerning a particular issue can help to stimulate thinking. This is a technique that can also be applied to other topics to find out what students already know.

Teaching Example 1

Vivian in Accra, Ghana, discussed with her junior secondary students the kinds of things that make children feel different and/or left out.

She asked them to think about if they had ever felt left out or different from others in the past, or if they were feeling this way at present. She asked them to write about these feelings.

Then they played games that helped them to experience what it was like to have a physical disability like the ones below:

You can help students to understand some of the difficulties that children with physical disabilities face by playing games like those below:

1. Bring to school some old stockings or pieces of rope or wool. Give these to students and ask them to tie behind their back the arm and hand they usually use to write with. Give each student a piece of paper. Explain that the game is to find out who can write the sentence that you are about to read to them in the fastest time, with the neatest handwriting. Read the sentence and then watch what happens! After you have chosen the winner, discuss with students how they felt while playing this game and what it must be like for students who have a disabled or missing arm/hand. If they are not able to write, ask them to draw a tree.
2. Bring to school some pieces of cloth or scarves (or ask students to do so) so that half the students are able to tie cloth over their eyes. Take the class outside. Tell students to work in pairs. The one who has been blindfolded has to walk around a number of obstacles that you have set up – you could use desks and chairs for this – being guided by their partner. Time each pair. If your class is not too large, ask the pairs to swap roles and then time each pair again. The winner is the pair that completes the task in the shortest time, without knocking over any of the obstacles. Afterwards, ask students how it felt to be blindfolded and to have to rely on a partner.
3. Bring to school enough cotton wool for each student to be able to put cotton wool into their ears to prevent them from hearing clearly- warn them not to push it in too far!. Then ask students to listen while you give the class a message to write down. The winner is the first student to complete writing the message without mistakes. Afterwards ask students how they felt when they could not hear clearly and what they could do to help someone with hearing problems.

4. If your school can afford to do this, buy a large number of marshmallow sweets. Give enough to each student so that his or her mouth is full. Tell them not to chew or swallow any of the marshmallows but to tell a partner the message you have written on the chalkboard. This is very difficult to do and they will realise what it is like to have a speech defect that prevents a person from speaking clearly. At the end, they eat the marshmallows!

Afterwards, they talked about how such disabilities may make children feel different and sometimes cause them to be rejected by their classmates. They also talked about children who suffered from HIV/AIDS, or whose parents had died from HIV/AIDS. Vivian asked them to write about their experiences during the games. What did it feel like to have a disability?

After this, before starting a sensitive topic, Vivian often asked her students to write or talk in pairs or small groups to explore their own ideas first.

Activity 1

When starting a sensitive topic with students it is useful to explore their ideas and feelings first.

Select a picture, poem or story to stimulate their thinking.

Show the picture/read the poem or story and ask them to think about what it means to them.

Ask them to write or talk with their partner about their thoughts and include their feelings as well.

Remind them that no one will mark this or judge what they say to each other. It is for them to think about what they think and feel at that moment.

Next, discuss with the class what they think the messages are in the picture.

2 Debating

Learning how to participate in a debate helps students (and adults) to express their points of view, listen to the views of others and think critically. When you choose topics for debate in your classroom, make sure you choose topics that are important to your students so they will really want to express their points of view.

In **Activity 2** you will introduce your students to the rules and procedures for debating and support them as they prepare for a formal debate. In **Teaching Example 2**, the debate is on inclusion in the classroom. With younger children, you could hold very simple discussions or debates about issues such as not hitting each other.

Teaching Example 2

After Vivian and her students had written about being 'left out', they discussed specific children who were not in school for some reason. Some of these children were disabled, some had no parents and were heading households and some did not come to school because they were too poor to buy uniform.

Vivian introduced the idea of debating to the class, and presented the motion: 'This class moves that all "out-of-school" youngsters, isolated because of barriers to learning, should be brought to school.'

She grouped the 36 students into groups of six, and asked half the groups to discuss points in favour of the motion and half to discuss points against.

Then she gave them a framework for preparing their speeches. Each group drafted a speech, either in favour or against the motion, and chose a speaker from among their number. Vivian looked at the speeches at lunchtime, and gave speakers advice on how to improve them. They did more work on their speeches at home.

The debate was held the next day. Vivian was very pleased with the high level of participation from all class members. The motion was carried, and students started making contact with out-of-school children, and working with their teacher and head teacher to bring them back to school. Vivian realised that the debate had provided an excellent opportunity for students to develop and express their points of view and for addressing an important community issue.

Activity 2

Explain to students about participating in a debate.

Brainstorm debating topics that interest them and help them to express these in the form of a motion. Decide on the motion for debate and explain the rules and procedures for debating (see 'Explanation of motion' in the box below).

Write the key rules and procedures on your chalkboard so that students can make a copy to refer to in future.

Ask students to prepare the debate speech in groups and choose one speaker to present their arguments.

You may have to help by providing background information for them to use in their speeches. You could also ask them to look for information from home for their speeches.

Check if the groups are ready to start the debate (perhaps later in the week) and then follow the rules and procedures.

Ask students to tell you what they have learned from the experience and use this information to plan future lessons and opportunities to discuss ideas.

With younger students, you could debate topics that relate to school, such as whether they should have class rules. You may have to help them learn to take turns to speak and listen to others' ideas.

Explanation of a motion

In parliament, or on important committees, when the members are making decisions, someone may introduce a motion to debate. A motion is a statement about something that needs to be done or discussed. A debate explores all sides of the argument. For example, if a member of parliament stands up and says: 'I move that capital punishment be abolished,' this idea is discussed formally and a decision is reached, which results in the desired action being carried out or not.

The following motions are examples of issues you could use in schools. You may have to adapt these depending on the size of your class and the age of your students.

- Parents should not use corporal punishment to discipline children.
- What we learn at home and in the community is more important than what we learn at school.

a) Supporting the motion

b) Opposing the motion

A debate is a contest, or, perhaps, like a game, where two or more speakers present their arguments intent on persuading one another ...

Why debate?

By preparing for and participating in debates, students learn to find and use information to support their arguments. They also learn how to present their ideas clearly and persuasively.

Through debating, they learn to understand views that are different from their own because, when debating, they may have to argue a case that they don't fully agree with, and they have to become very familiar with the view of the opposing team.

Preparation

Good debaters are very well prepared. The debate you conduct in your class may be an informal one, but could build towards a situation where your students debate seriously in competitions.

Before constructing a speech, debaters collect as much information on the topic as possible, from libraries, newspapers, magazines and discussion with people.

They think of all the points in support of the motion, and against the motion. In other words, they become familiar with the opposition's case as well as their own. They prepare themselves for all possible questions that might be asked by the opposition, and all possible challenges they might offer.

Good debaters structure their arguments very persuasively. They listen to other people debating, so that they learn the art and the skill of debating. They join debating societies, and debate as often as possible.



The process

There are two teams, each consisting of two or three speakers. One team (the affirmative) supports the motion, and the other (the negative) opposes the motion.

There is a chairperson, who controls the proceedings.

The speeches and speaking time are divided equally between the two teams.

Each speaker makes a speech they have prepared to argue their case. The sides speak in turn, starting with the proposer of the motion (affirmative, negative, affirmative, negative). Each speaker has a specified amount of time to speak (e.g. three minutes or five minutes).

Then the debate can be opened to the floor, with speakers standing up to offer points supporting or opposing the motion. Each speaker from the floor is allowed a specified amount of time (e.g. one minute or three minutes).

Each team may then speak in 'rebuttal', after a short period has been allowed for the teams to consult. This means that they have a chance to argue against points raised by the opposition. Each team may have one rebuttal speech each, or more. The first rebuttal speech is made by the negative side and the final rebuttal speech is made by the affirmative.

Important rules

- The team supporting the motion must not shift its point of view. The same goes for the opposition, who must oppose the motion completely (whatever their private opinions may be).
- If a speaker makes a statement, they must be able to provide evidence or reasons to support the statement.
- Facts presented in a debate must be accurate.
- Speakers may not bring up new points in a rebuttal speech.
- Points of order and points of information

Members of the house (anyone involved in the debate) may interrupt a speaker by raising their hands and indicating that they have a 'point of order'. This means that they wish to point out that one of the rules of debate is being broken (e.g. the speaker is speaking overtime, or does not have evidence to support his or her point).

Members may also raise their hands with a 'point of information' (a question or some information they have to offer). The speaker may choose to allow the member to speak, but does not have to.

Judging

- The winning team in a debate is usually decided on the basis of the quality of the debating, by a judge, or judges.
- However, it may also be decided by a vote.

Adapted from: http://www.triviumpursuit.com/speech_debate/what_is_debate.htm

3 Letter writing

It is important to learn how to express a point of view clearly, with supporting arguments. This is a useful skill when writing student essays, but also, when older, if debating a community or national issue in a letter, particularly a letter to a newspaper.

A letter to a newspaper can be compared to the first half of a debate. Often another person will respond to a published letter and will present alternative arguments. In the box below there is a letter to a newspaper in which students write about the important issue of including all students in schools.

Teaching Example 3 and the **Key Activity** offer you guidance for working with students to present arguments in the form of a letter.

Teaching Example 3

A few months after Vivian first introduced the idea of inclusion to her students, there were two new students in her class. One was deaf, and the other had only one arm. She and her students were gradually learning to include them in their class, to communicate with them, and to support them without making them feel too 'different'.

She now suggested the students write a letter to the head teacher or a newspaper on the topic of the importance of including all students in school. They could send their letter to the head teacher or to *The Daily Graphic* in Accra. They would have to write in English.

Students liked this idea and brainstormed what they could say. They produced an outline for the letter.

1. Theme: Schools should make efforts to bring in 'out-of-school' youngsters.
2. Reasons.
3. Ways to counter the possible arguments against.
4. Our experience.
5. Successes and challenges.
6. Repeat theme.

Vivian gave students guidance on the kinds of phrases to use, especially for 2 and 3, where they were presenting the argument. They asked a teacher who had access to a computer to type it, and sent copies to the newspapers.



The Editor
The Daily Graphic
Graphic Corporation
Accra

Sir

Schools must bring in children who are sitting at home

In our new Ghana, education is free. It is for all children. But there are still children sitting at home, without education. Some have disabilities, some have HIV positive parents, some are too poor to buy uniform.

Schools must bring these children in, to share education with other children. Why do we say this?

Firstly, it is their democratic right to be educated. The Minister of Education says all children must be included in classes.

Secondly and most importantly, they need to have friends and be part of life.

Some say that teachers do not know how to teach children with disabilities. Some say that parents don't want their children to be friends with 'cripples'. But we don't want our society to be one that chooses. Everyone must be treated the same. Children can help those with disabilities, and make it easier for the teacher.

Our class at Aburi Presbyterian Primary School, found two children sitting alone at home. We persuaded them to come to school. Adwubi has only one arm. We are helping her to learn writing and to play games. She is very clever and learns fast. Asiedu is deaf, but if he looks at your lips, he can hear. He is getting better at it. He is also becoming good at reading. We can write messages to him. We are learning many things from these children, and they are our friends.

It is still difficult for them, and the teacher is giving them extra help after school. The School Management Committee is also helping them to get school uniforms. They don't have uniforms yet.

We are pleased that they have come into our class, and we want to tell other schools to do the same.

Sincerely

Class 5
Aburi Presbyterian Primary School

Activity 3

- Take a topic your students have debated and introduce the idea of presenting their arguments in a letter to the head teacher or, if you have one locally, to a newspaper.
- Ask them to brainstorm, in groups, what they wish to write.

- Next, write the structure for the letter on the chalkboard using the outline in Teaching Example 3 (although your theme may be different).
- Students may need to write this letter in an additional language (e.g. English) so give them some guidance on phrases to use for introducing and presenting arguments. It may be helpful to share these argument phrases with them.

Argument phrases

We maintain that ...

Our reasons for saying this are as follows: Firstly, ... Secondly, ... Finally and Most importantly, ...

In the (newspaper name), of (date), (name of person) writes ... OR (name of author), in his book (name of book), says ... This shows that ... OR This proves that ...

Some say that ... But we believe ...

Our experience has shown ...

- Ask the groups to assess their own and each other's letters, using the questions below and decide which is the best one to send to the head teacher or newspaper.

Assessment questions

- Does the letter start by stating the case, or argument, clearly?
- Does it present arguments supporting this statement?
- Does it include some information that relates it to local circumstances or events and gives it a human touch?
- Does it present the case once more, conclusively, in the last paragraph?
- Is it well structured, divided into paragraphs, each with a main idea?
- Is it accurate, with no grammar, spelling or punctuation errors?
- You may need to do some editing before sending the letter, but try to keep the students' words.

Think what your students have learned from turning debate arguments into a letter.

With younger students or those less confident and competent at writing, you could do this as a class exercise where you write down their ideas. Use the activity to develop their vocabulary in the additional language.

Numeracy: Investigating distance

- 1 Practical investigation
- 2 Investigating height
- 3 Understanding length in a practical way

Key question for the teacher:

What practical and imaginative approaches can you use to develop students' understanding of distance?

Keywords: measurement; length; distance; comparison; active; practical; group; pair; investigative; proof

Learning Outcomes for Teachers:

By the end of this section, you will have:

- Developed ways of teaching measurement of length in a more student-centered way;
- Developed your ability to organise, support and assess practical investigations around distance.

Overview

This section will help you develop students' understanding of estimating, measuring, drawing, experimenting, constructing, interpreting and calculating lengths and distances.

Investigations can be done in class, individually or in groups. They can also be done at home by individual students, and either be presented to the whole class verbally or formally as written work. Investigations are based on having an idea or a phenomenon that you want to find out about. To do this, you undertake various tasks in order to find answers to your questions. Investigations can include practical work, but can also take the form of research as you search books etc. for answers. For further information about investigation see **Key Resource: Using investigations in the classroom.**

1 Practical investigation

Any investigation needs to be planned and conducted carefully, otherwise the results might be incorrect or unreliable. In **Activity 1** you will look at a statement that needs to be shown to be right or wrong. Make sure your students have all they need before they start an investigation, and that they understand the task before they begin. Your role is to support them as they work by asking questions to stimulate their thinking and encouraging them to develop their ideas.

Teaching Example 1

Mrs Mwakapenda in South Africa wanted to give her students a practical investigation on length to find out who was the tallest or shortest in the class.

She prepared some questions for them to ensure that they understood the task properly. She began her lesson by discussing these questions with the whole class.

- What do you understand by the term 'height of a person'?
- How are you going to measure yourself?
- Should you have shoes on or off, while measuring?
- Should you lie down or stand up against the wall?
- What about those with long hair, should they squash it down?
- Where should you measure from?
- What should you measure with?
- How accurate should you be?
- How do you use a ruler or tape measure?
- How should you collect the measurements?

She was aware that the investigation was not just about measuring. It was also about collecting and recording data. She wanted to make sure her students understood exactly what it would involve.

After the investigation, Mrs Mwakapenda was very pleased with what her students had achieved. They had shown that they knew how to organise an investigation. They carried out a fair test and measured the distances well, too.

Activity 1

Begin by asking your students to consider the following statement and discuss (in groups of four) how they would investigate whether it is true.

'A tall person can jump further than a short person.'

Each group needs access to a tape measure or ruler or some other means of measuring e.g. string or rope. Discuss how they might answer the question and agree on a process. This might be like this:

- take two measurements for each person and measure everyone in the group;
- measure height by standing against a scale on a wall which you made before the lesson;
- the jump must be a 'standing' jump – the person stands on a line, and then jumps as far as they can;
- measure the length of the jump using a tape measure or string etc.

Ask the groups to discuss how they can show their results.

- One way of checking that the statement is true is to make a table with two columns, one for the heights of the students going in order from the tallest down and the other for the lengths of the corresponding jumps. Only if the order is the same is the statement true.
- Another way is to make a mark with a cross on a grid using square paper with the student's height on the horizontal axis and the length of jump on the vertical axis. Only if the result of the crosses is a straight line is the statement true.

Ask them if their measurements agree with the statement. If not, can they rewrite the statement to match their results?

2 Investigating height

When exploring a topic such as measuring, it is important not to rush on to new concepts but to give students time to consolidate their learning and practise newly learned skills. This section provides more ways to explore students' understanding and abilities to measure length in different contexts.

Here, you will ask students to make comparisons between measures and think about any links. By using the same groups for a series of activities, you can discover whether they see the similarity between the investigations and are able to use the data and the strategies they used before.

Teaching Example 2

Mrs Baguna decided to undertake a measuring task with her class but provide less guidance than she had before. She wanted them to be more independent and to use the skills learned from previous tasks. She decided she would listen carefully as they discussed how to proceed and find out who was volunteering to do tasks. She was interested to know who realised they could use the previous knowledge and ways of working for the new task.

She thought carefully about what task to set. The head teacher had talked of moving the school fence and school gate on one side of the grounds to a place he said was nearer, to help save money. Mrs Baguna was not sure it was nearer and she decided this was a real problem to use with her class.

She set the problem in the morning and told her students they could work on it until the end of the day. They also had to do their language work but she said they could choose in which order to work. As she only had two long tape measures borrowed from the education offices, it limited the number of groups that could work with these at any one time. They could use other ways to measure, such as rope or string. She was pleased with how well they organised themselves and, as they worked, she noticed who understood the problem and how to solve it. All the groups agreed that the new site for the path was much nearer. She then asked them to work out how much money would be saved from the path.

They took their investigation to the head teacher who was very pleased with the information.



Activity 2

Begin by telling your students that you have another investigation for them to do in the same groups as before.

Ask them to find out if this statement is true:

‘Your height is the same as the distance between your fingertips with your arms outstretched.’

Ask them to discuss in their groups:

- How they could check these statements?
- What are they going to be measuring?
- What units of measurement should they use?
- How will they organise the work?
- How will they record their results?

Next, ask them to do the investigation together, or at different times (depending on your resources), and go around and listen to them as they work, supporting them if they are having difficulty. Ask them to show how they worked out the answer. Display their answers.

Discuss with them what you have observed about how they worked as groups.

How can you help them work better in groups? (See **Key Resource: Using group work in your classroom.**)

3 Understanding length in a practical way

It is important that students have a real-life ‘feel’ of what different lengths mean and are able to estimate and measure the length or height of an object. This is a very useful skill in real life. For example, will a tree fall on our house if it is chopped or falls down? To assess whether they have this ‘feel’, you can use a question to solve on paper that requires them to use their understanding or give them a final investigation about a real object, such as that in **Activity 3**.

When the task is complete, encourage your students to find out more about the indigenous trees of your country and have a go at measuring a large tree near your school if there is one. Working in this practical way will build their confidence in dealing with length.

Teaching Example 3

Mrs Juma from Tororo Rock wanted to find out if her students had a real understanding of different lengths, so she designed a paper activity that they had to do individually to assess this. She copied the activity onto the board, see below. She asked her students, who were Primary 6, to work on their own and think carefully about the answers before they filled in the gaps. She collected their books and looked at their answers.

Some students in Primary 3 measured different things in school. These are the measurements they wrote down.

- (a) 4 metres
- (b) $\frac{1}{2}$ metre
- (c) 19 metres
- (d) 1 and $\frac{1}{2}$ metres

Below is a list of the things they measured. Match each length or height against the most likely object.

Florence, who is in Primary 3
The length of the school building
The length of the teacher's table
The height of the classroom

Mrs Juma realised that many of her students had not got a real feel for length yet and so she decided to do more practical activities. She asked them to measure the school grounds but they had to estimate the length of each side first and record this. Each group took it in turns to do the measuring as she only had one long tape. She had made a large table of the key measurements and each group put in their measurements as they finished. She did not display this until all groups had finished so they would not be influenced by others' results. (She planned to use this data later for a SST lesson to produce a scale map of the school site.)

When all students had completed the measuring, she discussed the variations in their measurements with them and then asked them why this was so. They were able to suggest some good reasons such as starting at different points and not holding the tape straight.

Activity 3

If possible, take your students outside to where there is a lot of space; otherwise, use a large hall to try out the activities. You will also need about 60 students of average 1 m height and so you may decide to combine with another class. Work with the whole class together and ask guiding questions to help them solve the problem.

Read the following extract about the 'Big Tree' to the class.

- 'In Budongo Forest there are huge old mahogany trees. Some are 60 m high and have a circumference of 6 m or more.'

When you have finished outside, bring your students inside and ask them to answer the questions in the box below to assess their understanding.

Next lesson, ask them to make a display of all their measuring activities and invite other classes to come and see their work.

The height of the Big Tree

Remind your students that the height of the tree is 60 m. Ask them:

'Do you think if all the students here were to balance on each other's heads you would eventually reach to the top of this tree?'

That would not be easy and so what else can we do? Yes, we could try lying down instead.

Let's do that.'

Ask about ten students to lie down and ask another student to measure and see if that is enough.

Now ask: How many students do you think it will take?

Add more students until how many it takes to make 60 m is reached.

Finally, ask someone to describe how tall the Big Tree is.

The circumference of the Big Tree

We are told that the circumference of the tree is 6 m. Ask your students:

'How many students do you think it would take if you wanted to make a ring around the tree, with fingers touching?'

Try it by asking one student to measure 6 m. Then form a circle and count the students – this will give you an idea of the circumference of the tree.

Now try these questions with your group:

1. Before this activity I thought 60 m was:
 - a. As tall as my school building
 - b. As tall as a mountain
 - c. As high as a tall tree
 - d. As tall as a telephone tower
 - e. Hadn't thought about it
2. It would take the following number of classmates to make a ring around the giant tree in Budongo Forest:
 - a. At least 7
 - b. At least 6
 - c. At least 5
 - d. At least 4
 - e. At least 3
3. 1 m in length is approximately:
 - a. The span from the tip of an average person's nose to their fingers with arms outstretched
 - b. The height of an average person
 - c. The length of a small table
 - d. The height of a cow

Science: Wise use and reuse of materials

1. Importance of crude oil
2. Local and regional pollution
3. Recycling

Key question for the teacher:

How can you develop responsible attitudes to material and use and reuse?

Keywords: renewable; recycling; compost; projects; evaluating; values

Learning Outcomes for Teachers:

By the end of this section, you will have:

- Used different ways to develop responsible attitudes towards the use of material resources;
- Organised practical projects to reuse material
- Worked with your students to develop criteria to evaluate different products and processes

Overview

Teachers need to be aware of the importance of knowledge, skills and attitudes with regard to learning. Giving students the facts (knowledge) is the most straightforward, skills take more time and practice, but the most uncertain aspect is influencing values and attitudes. Think of a game of soccer. The whole crowd knows the facts (the basic rules of the game). A handful of players have the skill really well. But fairness, honesty, and dignity in defeat are all-important attitudes that are not always easy to come by.

This section introduces you to ways of developing responsible attitudes in your students towards the use and reuse of material resources

1 Importance of crude oil

So far in this module we have explored the origins of different materials, considered how they may be classified by their properties and how they may be processed and used in different ways depending on their states.

In this section, we try to make our students aware that we have limited supplies of many materials on the Earth. In **Teaching Example 1**, we read how a teacher introduces this idea by brainstorming a list of materials in terms of 'renewable' and 'non-renewable'. (See **Key Resource: Using mind maps and brainstorming to explore ideas.**)

One very important resource that is in limited supply is crude oil. Do you know how many materials are made from crude oil? Crude oil is a mixture of liquids. It isn't any use until the mixture has been separated at an oil refinery. The crude oil is boiled and each part of the mixture boils at a different temperature. This separation is called distilling and the different parts of the mixture are called fractions. Each fraction is then used to make different products.

In **Activity 1**, you use a diagram to help students appreciate how dependent we are on crude oil. You could follow this up with a display of products based on crude oil in your classroom – students could draw pictures or use images from catalogues or magazines.

Teaching Example 1

Amani in Khartoum, Sudan, draws a line down the middle of the chalkboard and writes the headings 'Renewable' on the left and 'Non-renewable' on the right. Then she helps her students through a brainstorm where they suggest names of materials and matter that are part of their everyday lives. They decide what family of substances each belongs to and where it fits on the board. (See the table below as an example for a typical result of such a whole class activity). They copy the final diagram and add to it over the next few weeks as they study renewable and non-renewable materials.

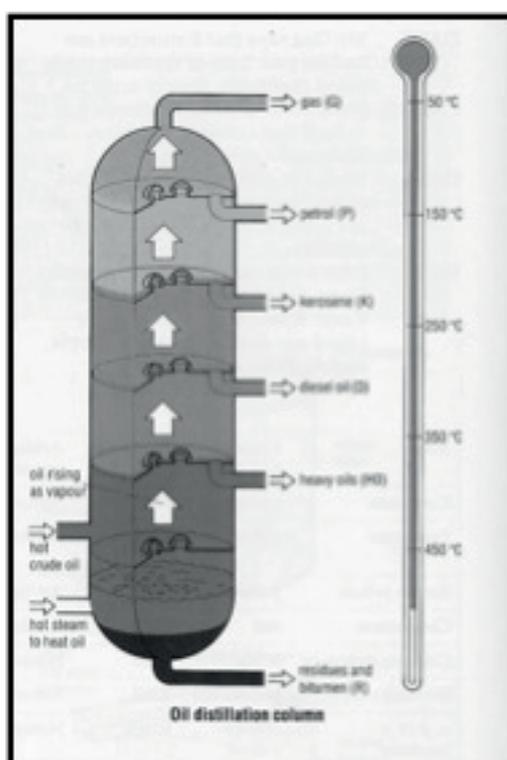
Renewable Sources	Non-Renewable Sources
Wood from planted trees – gum and pine	Wood from wild forest trees
Planted crops	Wild medicine herbs if too much is taken
Meat from farm animals	Threatened wild animals
Water (if we don't pollute it)	Soil that has eroded won't come back
Air	
ENERGY RESOURCES	
Water power (hydroelectricity)	Coal
Wind power	Oil
From the sun – solar energy	Petrol and diesel – from oil
	Paraffin from oil

Note: You might see how the teacher has started by accepting most of the suggested items the students present and has tried where possible to use their own words. This gives them confidence to add more. If the teacher rephrases

everything they suggest into textbook-type language many children get discouraged – accepting and working with their actual words is very important.

You might also have noticed how the teacher has steered the attention to energy aspects – by adding in a sub-heading. Depending on where they live, students might also know of natural gas, which is considered a non-renewable resource.

Activity 1



Many sources provide a diagram explaining how crude oil is processed in a petrol refinery. Here is an example.

Original Source of diagram: Oxford Science Programme Book1, published by Oxford University Press, p. 92 (1990)

Remind your students about how water evaporates and leaves behind the impurities – Activity 2 in Section 3 – and then help them realise that other substances also evaporate to give gases. When they cool, these gases condense back to a liquid. Think of any cooking area; the walls and ceilings have to be cleaned of greasy deposits, formed when the vapours of hot fat and oils condense.

Explain that crude oil is a mixture of liquids called fractions; each fraction evaporates at a different temperature.

Analyse the diagram with your students – how many different ‘fractions’ are produced? How are the fractions different? What is made from each fraction?

Then divide your class into groups and ask each group to research a different



group of products – they can find out uses, biodegradability (whether or not something rots away), safety. (See the table below for suggestions for this type of work).

Uses of crude oil	
Fraction (or part) of the crude oil	Products from this fraction (sometimes after further treatment)
Gas (G)	Gas fuels, such as calor gas, making other chemicals
Petrol (P)	Fuel for cars, pesticides, drugs, plastics, fertilisers, detergents, solvents, making other chemicals
Kerosene (K)	Paraffin, jet fuel, white spirit
Diesel (D)	Fuel for trucks and buses, central heating oil
Heavy Oils (HO)	Lubricating oils and grease, waxes, polishes, making other chemicals
Residue (R)	Tar for road surfaces, waterproof roofing materials, fuel for power stations

Teaching ideas

Teaching ideas would include making posters of products and by-products of crude oil using collages of magazine and newspaper adverts (you could show the products or brand names and symbols). Alternatively, you could make a display of empty containers. Products to consider include paraffin, diesel oil, petrol, lip balm, lipsticks, Vaseline, lubricating oils, candles, tar and plastics.

Nigeria's oil industry

As of September 2004, Nigeria was the largest oil producer in sub-Saharan Africa, the fifth largest petroleum exporting country in the organisation of petroleum exporting countries (OPEC). Nigeria produces 30% of the total oil production in the African region. Oil income has historically provided about 95% of Nigeria's foreign exchange earnings. The source of Nigeria's wealth is the Niger Delta, a wetland of about 70,000 sq km. The Niger Delta is made up of nine oil producing states and has an estimated population of about 20 million people, amounting to about 16.7% of the Nigerian population (120 million).

2 Local and regional pollution

From the previous work, students will have begun to realise that we need to think carefully about using non-renewable resources. We need to start thinking how we can act to become part of the solution to this problem and not just part of making the problem worse. It is good to get students involved in positive action that benefits the environment in some way.

In **Teaching Example 2**, a teacher encourages the students to go out into their own community and think about the impact of people on their environment. (If you try the same activity and don't have coloured paper, you could divide the wall into two areas.)

In **Activity 2**, we suggest your class researches, designs and carries out a long-term compost-making project. You can start by introducing the terms 'biodegradable' (rots away) and 'non-biodegradable' (doesn't rot away) and explaining what causes rotting – bacteria. Students will be able to give you many examples of materials in each of these groups – this could be a brainstorm activity.

Later, you might want to go into income-generating production of compost, which would involve systems for safely collecting local compostable waste and its subsequent sale or use in a school vegetable garden.

Teaching Example 1

Looking at living things around the school has made Reuben Adekola's students care more about the animals and plants in their environment.

Now he tries to do the same thing with awareness of the impact of people on our natural world. He talks to them about the idea of the 'human footprint'. They discuss and list the harmful and helpful things they can think of that are happening in the local area. Then, he sets them a challenge. The whole back wall of the classroom is cleared to make space for a wall 'newspaper'. Students go out into their environment as 'reporters' and come back with information and evidence in the form of notes and drawings. Anything that they feel is harming or not helping the environment is colour-coded on light brown card/paper, and the good things are written up/displayed on green paper. A glance gives an overall impression of the local situation: – mostly brown = BAD; mostly green = GOOD.

The students find so much information that the display spills over onto the side walls. They come with information from the media (press, radio and TV) about their own country and continent as well as across the world. The colour-coded display grows daily and raises discussion, argument and, most importantly, the attitude of concern.

Activity 2

Read 'Making compost', below which explains one method to do this.

Tell your students they are going to do a project in which they will do something positive with waste – composting. First they need to do some research about composting in their community in groups. What are their ideas? Can they think of anyone in their community who could help them? Could they ask this expert to visit their classroom or could they visit this person? (See the Additional Resource on **Using the local community/environment as a resource.**)

Gather together all the ideas for making compost from students and their research.

Making compost

The best and cheapest way to make garden soil better is to make your own compost. It only costs effort and a little bit of time and care.

Choose an out-of-the-way part of the school garden that is quite sunny. Clear away any weeds and rubbish.

When you have an open space, one of the students can mark out a circle with a radius of about 75 cm. If this student stands in the centre of the circle and turns around while holding out a walking stick, a good – good is a bit vague – ‘accurate’? circle will have been drawn.

Take spades and dig up the soil in the circle. Dig to the depth of the blade of the spade. Use a garden fork to make the soil in the circle loose.

Make a small pile of spare soil next to your circle by moving about a third of your loosened soil from the circle.

Stick a central pole or straight branch into the soil in the centre of the circle.

Now you can start the compost-making process. Put a layer of twigs and old leaves you have collected on top of the loose soil. The more you have the better.

Next, put down a layer of stalks and stems from plants and any kitchen waste (potato peelings, old tea bags or tea leaves, eggshells). You can even add shredded scraps of paper.

Then add a dry layer of grass cuttings, dry grass or old dry leaves.

Finish by putting a thin layer of soil on top. Use the loosened soil from the pile next to your compost heap.

Go on adding more layers:

- first stalks, stems, twigs and leaves;
- then kitchen waste and green cuttings;
- then dry grass, old leaves and manure (if you can find it);
- finish each layer with a last layer of soil.

Sprinkle a little water – but don't make the compost heap too wet.

The height will drop as the matter rots down. Then you can add more layers over time. Always keep a layer of soil on the top – this deters the flies.

Then ask students to think: How will they assess which ideas are best? Give time for each group to develop a list of criteria.

Share criteria from each group and, in a class discussion, decide which are the most important. Students should write these in their books.

Now you are ready to make the compost. Each group could try a different method or you could all try one method. Don't forget to give students time to plan (listing their equipment) and evaluate against the class criteria.

Did your students enjoy working in this way?

3 Recycling

From the previous work, students will have begun to realise that we need to think carefully about using non-renewable resources. We need to start thinking how we can act to become part of the solution to this problem and not just part of making the problem worse. It is good to get students involved in positive action that benefits the environment in some way.

Students can explore other ways to recycle or reuse what would otherwise be waste material. People in poorer communities do this in very creative and imaginative ways out of necessity. Studies of people like the Khoi-san (Bushmen) in South Africa show how, in the past, they wasted almost nothing at all and made a minimal 'human footprint' on their natural world, treating it with enormous respect. How do we compare in modern times? The information provided below is about how to calculate the size of your 'footprint' on the Earth.)

Introduction

The ecological footprint is a tool that measures how much land and water area a human population needs to produce the resources it uses and to absorb its waste.

In order to live, we consume what nature offers. Every action has an impact on the Earth's ecosystems. This is of little concern as long as human use of resources does not exceed what the Earth can renew. But are we taking more?

Today, humanity's ecological footprint is over 23% larger than what the Earth can regenerate. In other words, it now takes more than one year and two months for the Earth to renew what we use in a single year. We are surviving by using up the Earth's resource stores. We are both using up non-renewable resources such as minerals, ores and petroleum but also renewable resources such as fish stocks, animals, forests and groundwater – we are using these up faster than the Earth can resupply them. We depend on these ecological assets to survive. Livelihoods disappear, resource conflicts happen, land becomes barren and resources become increasingly costly or unavailable. This is made worse by the growth in human population, as well as by changing lifestyles that place more demand on natural resources.

By measuring the ecological footprint of a population (an individual, a city, a nation, or all of humanity) we can assess how much of the planet we are using, which helps us manage our resources more carefully. Ecological footprints enable people to take personal and collective action so that we live within what the Earth can regenerate.

The challenge and the goal: sustainability

Sustainability is a simple idea. It is based on the fact that when resources are used faster than they are produced or renewed, the resource is depleted (reduced in number) and eventually used up.

In a sustainable world, people's demand on nature is in balance with nature's capacity to meet that demand.

Original source: <http://www.footprintnetwork.org> Calculate your ecological footprint

Calculate your ecological footprint

Answer the following questions to see how big your ecological footprint is. Add up your points, indicated at the end of each question (for example [2]) to see if you are making a high, medium or low impact on the environment around you. Remember, the smaller the footprint, the better!

1. How much of the food that you eat is processed, packaged and from far away?

- a) Most of the food I eat is packaged and from far away. [3]
- b) About half the food I eat is packaged. [2]
- c) Very little. Most of the food I eat is unprocessed, unpackaged and locally grown. [1]

2. What is the size of your home?

- a) 30 sq m or smaller [1] similar size to a large truck
- b) 90–130 sq m [2] similar size to half a football pitch
- c) 200 sq m or larger [3] similar size to a full football pitch

3. Do you bicycle, walk, or use animal power to get around?

- a) Most of the time [1]
- b) Sometimes [2]
- c) Rarely [3]

4. On average, how far do you travel on public transportation each week (bus, train, ferry, shared taxi)?

- a) 25–100 km per week [3]
- b) 20 km per week [2]
- c) 0 km per week [1]

5. On average, how far do you go by car each week (as a driver or passenger)?

- a) 0 km per week [1]
- b) 250–500 km per week [2]
- c) 700 km or more per week [3]

6. Compared to people in your neighbourhood, how much waste do you generate?

- a) About the same [2]
- b) Much less [1]
- c) Much more [3]

Now add up your points and refer to the table below.

What kind of recycling is going on in your local community?



<p>If you scored between 0–6 points, you currently have a low impact ecological footprint. Well done! See if you can improve your score by using some of the ideas below.</p>	<p>If you scored between 7–12 points, you currently have a medium impact ecological footprint. See if you can improve your score by using some of the ideas below.</p>	<p>If you scored between 13–18 points, you currently have a HIGH IMPACT ecological footprint. See if you can improve your score by using some of the ideas below.</p>
<ul style="list-style-type: none"> • Set up a group in your area to discuss issues and raise awareness about the impact humans have on the environment. 	<ul style="list-style-type: none"> • See if you can eat more locally produced foods to cut down on fuel used to transport products. • See if you can walk or use public transport, rather than travelling by car. 	<ul style="list-style-type: none"> • Try to walk or use public transport instead of travelling by car. • Try to cut down on the number of packed or transported foods that you eat. • See if you can reuse and recycle any waste materials that your household produces.

Teaching Example 3 shows how one teacher and her students survey the local community for evidence of recycling.

In **Activity 3**, we suggest you encourage your students to do an integrated science and technology exercise. They work at designing and making articles from waste and sell these at a special ‘entrepreneurial’ day to raise funds for the school or class.

Teaching Example 3

Blossom Ubani involved her class in a tidy-up campaign around the school. She incorporated mathematics. They collected rubbish, sorted and tallied (counted) what they found. This gave them data to analyse. They presented their findings to the school in assembly, showing graphs and suggesting they make a school policy regarding pollution of the environment.

She followed this up with a survey of recycling in the local area. This was again presented in a school assembly. Her students showed the soccer balls that children had made from wrapped plastic, and the beautiful, useful handbags and purses that some local retired people had crocheted from strips of used plastic bags. Students also explained how the local game park had made their fences more visible to buck by attaching old lids of tins to the top strands of wire.

Finally, Blossom set her class a challenge: Devise criteria to test the balls in a competition to 'make the best soccer/netball from waste material'.

Finding the best waste material ball

First, start with a brainstorm where you and your students list the qualities of a 'good' ball. Expect or work towards ideas such as:

A good ball is:

1. properly round and the right size;
2. rolls straight;
3. bounces well;
4. strong;
5. soft enough to catch.

Your students might have some more ideas – make a list on the chalkboard.

Second, you and your students need to discuss how each quality can be measured.

- **Properly round and the right size:** Does the ball fit evenly through a special wire or cardboard hoop of the exact/right diameter no matter which way up it is? Can you hold it comfortably?
- **Rolls straight:** Measure by actually rolling – you need to decide how far to roll it along a line on the ground.
- **Bounces well:** You will need to drop the balls from the same height and measure how high they bounce back to compare them.
- **Strong:** This might have to be tested by actual use. How long before repair or replacement is needed?
- **'Soft enough to catch':** Does it hurt your hands when you catch it?

Finally, you need to set scores for the tests you have established and then try them to see if it works (one example is given below).

You will need to develop this score sheet on the board with your students. You could divide your class into groups – each group to develop the scores for one property.



SCORE for the BALL	5	4	3	2	1
Shape and size	Nearly perfect fit through hoop	Slight, but even gap <1 cm	Uneven gap >1 cm	Uneven fit with big gaps	Totally wrong size
Rolls straight	Perfectly along the straight line	<5 cm off the line	5–10 cm off the line	>10 cm off line	Not on the line at all
Bounce from 1.5 m	About 1 m	More than 50 cm	Between 25–50 cm	Only about 10–25 cm	Hardly any bounce at all
Strong – how long it lasts	Lasts more than 10 minutes	5–10 minutes of use before it is damaged	Lasts for 2–5 minutes before it is damaged	Lasts for 2 minutes before it becomes damaged	Not even 1 minute of use before it needs repair
Soft enough to catch	Catch easily with no hurt	Occasionally causes stinging	Painful after a few catches	Some scratches	Damages your hands – scratches and stings

Give each group time to find materials and make their ball.

Now ask each group to test their ball against the criteria. What is the score for each criteria? What is the overall score?

You may find that you and your students need to change the criteria once they have made their balls. This would show that they are developing critical thinking skills. They may also think of adding qualities, for instance, appearance. That also deserves some praise.

Activity 3

Here we suggest that students work in friendship groups to think of something that they could make from scrap and waste material. The product should have some value or use and perhaps could be sold at an 'entrepreneurial' day later in the year.

They might want to look at some old things, like corncob dolls, which were so popular in the past. How could these be updated? What about making toy cellphones for younger children? If you can crochet bags from strips of plastic, what about caps or 'beanies'?



How will you get the students to examine the science in this work? As they work you need to move around the classroom talking to each group about what they have learned about matter and materials. They need to give evidence, or be able to tell, how they have thought about the properties and nature of the materials they use, and why have they chosen them. What are their properties? Where do they come from? Are they renewable or non-renewable resources?

At the end, ask each group to present their product to the class. They should explain why they have chosen certain materials and if they are from renewable or non-renewable resources.

Social Studies: Investigating people and places

- 1 Diversity
- 2 Similarities and differences
- 3 Local environment

Key question for the teacher:

How can you help students explore similarities between different people and different places?

Keywords: research; cultures; places; environment

Learning Outcomes for Teachers:

By the end of this section, you will have:

- Explored difference and similarity across different African contexts;
- Used interactive strategies that allow the comparison of communities and practices across contexts;
- Set up a focused classroom research activity using a range of resources.

Overview

When teaching social studies, you are confronted all the time with questions of human diversity and commonality.

This section looks at how you can help your students compare lifestyle and economic practices across different contexts and cultures. This will help to develop important social studies thinking skills for you and your students.

In primary school, older students are highly capable of working with the idea that objects in two different categories might still have a number of properties or features that make them similar. It is part of your role to help younger students understand this.

1 Diversity

In this part, you are encouraged to develop this thinking in your students in relation to the tension between commonality and diversity among human beings.

Teaching Example 1 and **Activity 1** suggest ways of using group discussions to explore the different lifestyles of people in different places, but also to remind students of the shared humanity of people everywhere.

Teaching Example 1

Ms Maryogo teaches geography in a remote rural village school in Tanzania. The inhabitants of the village are on the whole very poor. Mrs Maryogo wants to help her students to question the differences between communities and so sets them tasks that encourage them to think critically and discover truths about the world they live in for themselves.

Today, she has considered very carefully what she can expect her 11-year-old students to do and has prepared a series of images that reflect life in different communities.

In discussion in class, Ms Maryogo poses the following questions:

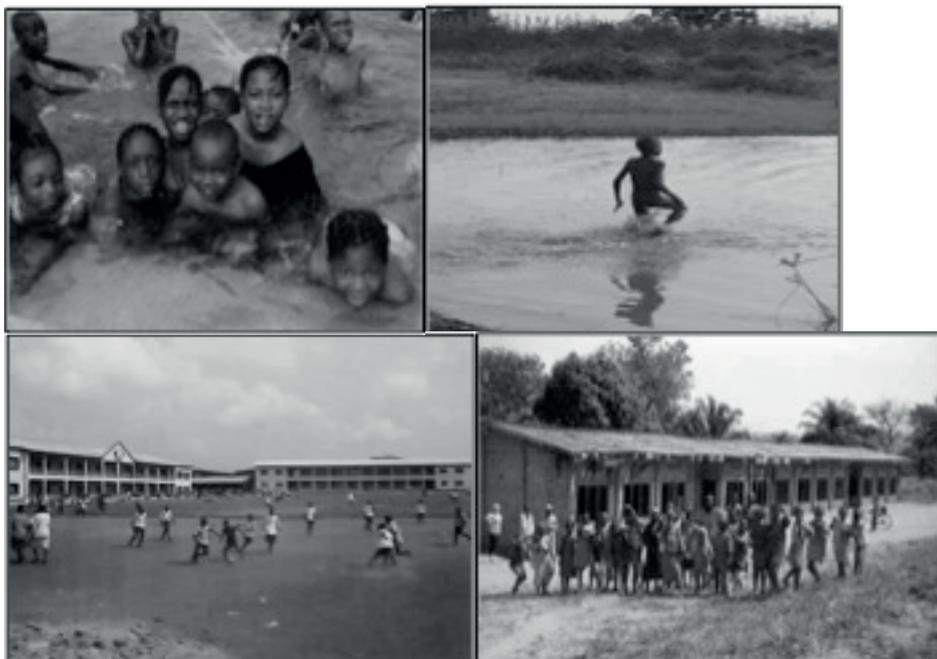
- What similarities are there between these places?
- What similarities are there between the people living in these places?
- What differences are there?
- Why are there these differences?

As students suggest answers to these questions, she encourages them to extend their ideas and think more deeply. She explores sensitively with them the feelings they have about living in their village.

(See also the Additional Resource on **Using questioning to promote thinking.**)

Activity 1

Here are some examples of how different communities carry out activities – such as swimming and schooling. If you have other photos of activities – e.g. shopping, cooking which show differences, bring them into the classroom. Divide the class into groups of four or more. (If you are able to bring only a small number of illustrations/copies of photographs then the groups will need to be bigger.)



Give each group one scenario from the photographs – schooling, swimming, shopping, cooking etc – to work with. Each group should make a list of the similarities between what people do in each situation, and the differences. Use only the evidence in the pictures.

Ask each group to write sentences which compare the situations, for example:

- In the market, the food goods are laid out in a round tray.
- In the shop, people push things around in trolleys.

They can display these sentences with the pictures and others in class can see what different groups have said about each picture.

Looking at their displays will help you assess how well they have understood the topic. You can use this to plan the next step in their learning.

If you have younger students, you could do this as a class activity, using two contrasting photos and asking questions to help focus their observations.

2 Similarities and differences

Providing opportunities for your students to question information about different situations will help students understand differences between communities.

Teaching Example 2 and **Activity 2** show different ways to organise students and use questioning to allow deeper thinking about similarities and differences.

Teaching Example 2

Mrs Onuorah has prepared a lesson on exploring differences and similarities between different local areas. She has prepared a brief information sheet on two different locations (see 'A comparison of Owo and Idodo' below). At the beginning of the lesson, she gives the sheet out to the class and asks them to work in their groups. She writes the following questions on the board:

- What are the differences and similarities between the two environments (Owo and Idodo)?
- Are there similar standards of living across the two environments?

While the groups are working, Mrs Onuorah moves around listening to their conversations and supports them in thinking more deeply. She asks questions related to what the students say in order to help their thinking, and picks up on their own ideas and interests.

Mrs Onuorah is always concerned that she is organised so she can focus more on developing her students' understanding.

Activity 2

This activity gives students an opportunity to reflect on different social contexts.

- You could use the comparison below or make up your own contrasting environments (perhaps using magazine pictures, illustrations, photographs etc).

A comparison of Owo and Idodo

Owo

Owo village lies about 8 km from the Enugu-Abakaliki expressway in Nkaru West LGA of Enugu state in Nigeria. Besides receiving sufficient and reliable rains throughout the year, the village is well served by natural springs.

The residents of Owo village are mostly mixed farmers. They grow a variety of crops including maize, sweet potatoes, bananas and vegetables like onions, tomatoes, lettuce, etc. They also raise poultry, goats and other small livestock.

In spite of being endowed with abundant natural resources, the residents of Owo have a very low standard of living. They receive low prices for their agricultural products.

Idodo

Idodo is a trading post on the Enugu-Abakaliki expressway. Because it is on a main commercial transport route, the residents were able, historically, to develop strong trading contacts with the cities. They have also built networks among truck drivers and other transporters, which enable them to move goods cheaply.

The residents of Idodo are mostly traders. They buy cheap agricultural products, poultry and goats from surrounding rural villages and are able to sell them for a profit in major urban areas like Enugu, Abakaliki and Oitsha.

As a result, the residents of Idodo enjoy higher standards of living compared to people in surrounding villages. Idodo has social amenities, including dispensaries, schools and piped water.

Give each group contrasting photographs or pictures. (See **Additional Resource: Using group work in your classroom**) Ask them to identify the features of each environment in terms of things like physical features, economic activities and what jobs people are doing. They may contrast the pictures with where they live. Ask them to note down important features and ideas about what is different and what is the same.

Put two groups together and ask each group to share their ideas with the other group.

Ask each group to make a presentation of their findings to the rest of the class.

3 Local environment

Having explored differences and similarities between geographical locations with your class, a next step could be to use these ideas by involving your students in thinking of ways to improve their environment. **Teaching Example 3** shows how one teacher developed a school garden as part of her science and social studies lessons and **Activity 3** helps students explore how their local environment can be improved.

Teaching Example 3

Education for sustainable development (ESD)

What is education for sustainable development?

'Education for sustainable development enables people to develop the knowledge, values and skills to participate in decisions about the way we do things individually and collectively, both locally and globally, that will improve the quality of life now without damaging the planet for the future.'

(Panel for Education for Sustainable Development, 14 September 1998)

Sustainable development is an integral part of citizenship that will enable students to:

- understand that despite physical, material and cultural differences, there is a lot that connects us with the wider world;
- think critically and challenge injustice and inequalities;
- identify, respect and value diversity;
- develop a concern for and commitment to environmental issues and sustainable development;
- be willing to act to make the world a fairer and more sustainable place;
- take responsibility for their actions.

Both citizenship and ESD provide great opportunities for active, student-centred learning styles from which students get a sense of their role as global citizens. Such an approach to learning includes lessons that explore distant localities and environmental issues. Exploring the local community and then communities further afield will help students to expand their thinking about how different communities and cultures can be and how the same problem can be solved in many ways, and provide new ideas to try and test. ESD also explores ways to be more self-sufficient. This means making best use of the resources around you but not using them all up. Thinking about ways you can replenish or replant will ensure continuity. It means using only what you need.

Local resources are not everlasting but have a limit unless we try to share and use these wisely and replace, where possible, what we use.

Adapted from original source: <http://www.bbc.co.uk/>



After much discussion, her students decided they would like to make some places to sit in the garden, and also to paint on the playground or make games to play at break times.

She allowed the students to discuss in their groups what this would involve. They needed to think about:

- where to put the seats;
- what they would make them out of;
- gaining permission from the head teacher;
- involving parents and other community members;
- what games they wanted;

Together they made a plan of action, which was displayed on the wall. The head teacher asked to come and listen to their ideas.

Activity 3

Ask your students what they like about their community and the school environment and list these on the chalkboard.

Next, ask them to brainstorm ways they could improve their school environment.

Ask them these two questions to start them talking:

- How could you make the school environment more interesting at play time?
- How could you encourage everyone to take pride in the school and protect it?

As each group feeds back their ideas, list the two most popular ones on the board.

When all the groups have fed back, go through each suggestion – summarising what it is.

Now ask your students (individually or in groups) to draw up a plan, that can be displayed in the wall, of the option for improving the environment that they would choose.

Life Skills: Sensitive ways to talk about HIV and AIDS

- 1 Preparing to teach lessons on HIV and AIDS
- 2 Discipline in the classroom
- 3 Using activities to enhance learning

Key question for the teacher:

How can you teach a sensitive topic like HIV and AIDS in a constructive and supportive manner?

Keywords: preparation; active learning; sensitivity; quizzes; role play; HIV and AIDS

Learning Outcomes for Teachers:

By the end of this section, you will have:

- Prepared yourself for teaching a sensitive subject such as HIV and AIDS, using a variety of resources including the Internet
- Used different methods such as role play and local experts to ensure active learning;
- Created a sensitive learning environment to develop understanding of HIV and AIDS

Overview

As a primary teacher, you will be aware of the importance of helping your students deal with the impact of HIV and AIDS on their lives, in terms of knowledge about the facts of HIV and AIDS, the safety of their own health and the health of others.

This is a difficult subject for some teachers and students to cope with and for that reason some teachers prefer to 'leave it to the experts'. However, there are many ways you can provide a sensitive learning environment to help your students explore this topic if you plan carefully. This section will help you to prepare and plan using a variety of resources – colleagues, outside experts, text and the Internet. You will develop skills in using role play in your teaching about HIV and AIDS and create some classroom rules to provide a supportive learning environment. This section does not cover everything to do with HIV and AIDS but does help demonstrate approaches you could use.

1 Preparing to teach lessons on HIV and AIDS

You are probably facing two specific challenges when preparing lessons on HIV and AIDS. The first is confidence in your own knowledge and the second is that it is a sensitive subject and potentially difficult to teach. If there are any doubts in your own mind about whether HIV and AIDS education should be taught in school, you should discuss it with your Head Teacher. However, it is important that everyone understands HIV and AIDS.

It is critical that you are well prepared before you bring up this topic with your students. You must know the facts and prepare yourself to answer questions that may be difficult for you. This part will help you to prepare yourself well to teach HIV and AIDS.

You should also think about the students in your class and how each student might respond to this topic. What you cover will depend very much on the age of your students and how much you believe they know about the subject already.

Teaching Example 1

Mrs Shikongo in Tanzania was preparing herself to teach her Grade 4 class about HIV and AIDS and she was rather nervous. What if the children asked questions she couldn't answer? She knew it was important to be properly prepared and thought about how she could do this. She made some notes of the things she needed to do.

1. Speak to the Grade 5 teacher. He attended an HIV and AIDS workshop in Nairobi. Ask if he has any workshop notes or other resources that could be borrowed.
2. Look in the school library to see if there are any booklets or other information for teachers or students.
3. Ask the Head Teacher if there is an HIV and AIDS advisory teacher in our area and contact them for background material.
4. Find out if there are any NGOs or clinics in town that have information on HIV and AIDS.
5. Collect together the resources, then plan some time to go through them and make notes of important facts. Read the resources with the age of my students in mind and see if I could use them.
6. Think about how to make it easy for my students to learn about this subject and be able to discuss their own views. How can I make sure that their learning is not blocked by embarrassment?
7. Do we need special 'rules' by which we discuss such a sensitive subject?
8. Think about how to assess how much the students have learned.

Having done her planning, Mrs Shikongo taught her first lesson on HIV and AIDS. Her class were nervous at first but as the lesson went on they listened and participated well. Many of them talked about the lesson during break time. Some asked her questions that she said she would answer in the next class.

Activity 1

Prepare yourself by researching the facts of HIV and AIDS and thinking about how you will teach it to your students.

Make notes, thinking about the following:

- Check with your head teacher that he or she is happy for you to do this.
- Where will you get information?
- Is there a resource person in your school? Town? District?
- Are there NGOs or medical centres working with HIV and AIDS education?
- How will you collect this information?
- How will you judge what information is appropriate for your students?
- Think about the age of the students and size of the class.
- How will you organise the classroom and your students?
- Would your students benefit from having a local expert come to talk to them to build on your class work? Should they come at the start of this work or later?
- What other resources do you have access to? Is there a computer room in your school where the class can access the Internet or you can gather information?
- Are there any students who may react strongly to this subject? How will you deal with different reactions?

Plan your introductory lesson.

2 Discipline in the classroom

Discipline is important in every classroom. However, the topic of HIV and AIDS can cause students to react differently to the way they behave in other lessons. You may find that you need to establish rules to encourage open discussions about HIV and AIDS and sexual activity. It can be a helpful lead in to the topic to discuss with your class why special rules are needed and ask them to suggest the rules themselves.

Teaching Example 2

Chinyere was very tired – it had been a difficult day. She is a student teacher on practical teaching at Jos Primary School and her mentor had asked her to teach some lessons to Primaries 4, 5 and 6 on HIV and AIDS. She did not feel very confident. They had been given some sessions on this at college which helped her prepare. See the information below about how to deal with different reactions. She had been confident about working with the younger students, but had been very concerned about the Primary 6 class. There are a lot of older boys in that class and Chinyere felt sure they would disrupt the lessons.

Students may react to lessons on HIV and AIDS in different ways. They may:

- ask questions to try to embarrass you;
- remain silent because of their own embarrassment;
- try to shock or amuse by describing sexually explicit behaviour;
- ask personal questions about your private life;
- make comments which open themselves to ridicule or criticism from other students.

To deal with these situations, it is important to set class rules. These must be very clear to students before you start. You can have students discuss and develop their own rules or you can start with a list and discuss if they are fair and why they are important. Your list might include:

- Students are expected to treat each other in a positive way and be considerate of each other's feelings.
- Students are not to discuss personal matters that were raised during the lesson with other people outside the classroom.
- Students should avoid interrupting each other.
- Students should listen to each other and respect each other's opinions.
- Both students and teachers have a 'right-to-pass' if questions are too personal.
- No put-downs – no matter how much you disagree with the person, you do not laugh, make a joke about them or use language that would make that person feel inferior.
- Students will be given the opportunity to put their questions anonymously to the teacher.

Remember that the rules apply to the teacher as well as the students!



She was right; she had just started the first lesson about developing the new classroom rules when Thomas started to ask her questions about her own sex life. She was shocked at first, but she quickly told him not to be personal and carried on. Then, during group work, the class had got very rowdy and noisy with lots of laughter and her mentor had come to see what all the noise was about.

Chinyere split up the noisy boys' group, but when they were giving feedback Thomas and his friends kept describing explicit sexual behaviour to make the class laugh and make her embarrassed. She reminded them of the class rules and said they risked not being able to participate if they could not be responsible. She had dealt with them well, by ignoring most of their comments or turning the comments around to make a factual point. But it had been exhausting and she was glad when the bell went for the end of school. Next time, she would talk to these boys before the lesson about respect and what she would do if they misbehaved. She would try to help them understand the importance of the topic.

Activity 2

Part of your preparation for teaching about HIV and AIDS with your class involves preparing the students as well as yourself. You learned earlier about developing classroom rules to help effective learning on sensitive topics. Now you need to do this with your own class.

1. Explain to the class that you are going to be doing some work on HIV and AIDS.
2. Review the existing classroom rules that you have by putting the class into groups to discuss if they are relevant.
3. Ask each group to think of no more than three extra rules they would like to have during this work.
4. Each group suggests their additional rules, which are written on the board.
5. As a class, agree the additional rules you want.
6. Discuss all the rules with the class, including the new ones, and make sure everyone is clear why these rules are needed for this topic.

What will you do if they ignore the rules? Agree with your class what limits or sanctions you will use.

3 Using activities to enhance learning

If students are to learn actively, then they need to be either physically or mentally active – or both! There are many ways you can promote active learning to make sure your students are getting the most out of their lessons. Which methods you use to teach HIV and AIDS will depend very much on the size of your class and the age of your students – and also on what you know about their preferred methods of learning.

You know that role play is a good strategy to use for helping students discuss sensitive topics. In HIV and AIDS lessons, it will allow students to discuss situations that are not their own but to think about how these relate to their own experiences. This is used in the **Activity 3**.

Another effective method is the HIV and AIDS quiz. In **Teaching Example 3**, one teacher uses a quiz activity to find out how much her primary class knows about HIV and AIDS.

HIV and AIDS quiz

This quiz is online at <http://www.avert.org/generalquiz.htm> and you can complete it there yourself. If your students have Internet access, you could also use it with them. If not, there is an adapted text version here. Tick what you think is the right answer.

1. Does HIV only affect gay people?

Yes	No	Only Gay Men	Only Gay Women
	a		

2. Approximately how many people are living with HIV worldwide?

38.6 million	25.8 million	3.5 million
a		

3. How can you tell if somebody has HIV or AIDS?

Because of the way they act	They look tired and ill	There is no easy way to tell
		a

4. Can you get AIDS from sharing the cup of an infected person?

Yes	No	Only if you don't wash the cup
	a	

5. When was AIDS first defined?

1997	1987	1982
		a



6. Which protects you most against HIV infection?

Condoms	Contraceptive Pills	Spermicide Jelly
a		

7. What are the specific symptoms of AIDS?

There are no specific symptoms	A rash from head to toe	You start to look very tired
a		

8. What is HIV?

A virus	A bacterium	A fungus
a		

9. Can insects transmit HIV?

Only mosquitoes	Yes	No
		a

10. What does STD stand for?

Sexually Transmitted Disease	Special Treatment Doctor	Standard Transmission Deficiency
a		

11. Is there a cure for AIDS?

Yes	No	Only available on prescription
	a	

12. When is World AIDS Day held?

1st January	1st December	1st June
	a	

13. Worldwide, HIV is most common in which age range?

0–14 years old	15–24 years old	25–34 years old
	a	

14. Is there a difference between HIV and AIDS?

Yes, HIV is the virus that causes AIDS	No, HIV and AIDS are the same thing	Yes, AIDS is the virus that causes HIV
a		

15. What percentage of those infected with HIV are women?

Nearly 25%	Nearly 50%	Nearly 75%
	a	

16. Is it possible to lower the risk of an HIV positive woman infecting her baby?

Yes, the risk can be made much lower	No, not at all	Only very slightly
a		

Teaching Example 3

Maria used the Internet to prepare herself for working on HIV and AIDS with her class. She is lucky that she is upgrading her teaching qualification through distance learning and has access to the computer room at the study centre.

She decided to try out an activity called 'Transmission runaround'.

Transmission runaround

You can use this method for any age group by adapting the questions to suit the level of the children. This description is better suited to older primary students.

Aims

- To assess levels of awareness of how HIV is transmitted.
- To encourage group members to think about a variety of transmission routes.

What you will need

A reasonably spacious room, to allow for free movement. Or you can move outside.

A copy of Transmission Runaround true/false question sheet for yourself and the answer sheet.

Two large sheets of paper clearly marked 'STRONGLY AGREE' and 'STRONGLY DISAGREE'.

Pins.

Time – up to 60 minutes depending on the number of statements used and the size of the group.

What you do

- Put up the 'STRONGLY AGREE' and 'STRONGLY DISAGREE' sheets on the wall at opposite ends of the room or on the wall/trees across the playground.
- Explain to the group as a whole that you will read out a series of statements, one at a time. Each person is to think about whether they agree or disagree with it, and move to the appropriate side of the room/space. It is all right to stay in the middle if they are uncertain.
- Read the first statement. Once everyone has moved to their chosen place, ask members to choose one person near them and discuss why they are standing where they are.



- Now ask people to choose one person standing as far away from them as possible, and to discuss the statement with them, explaining why each has chosen to be where they are.
- Repeat the procedure with as many statements as time allows.
- Reassemble as a group and, going round the group, ask each individual to identify one piece of information they are confused or unclear about. Ask members of the group to clarify the issues involved and intervene yourself where necessary.

Likely outcomes

At the end of the exercise, it will be clear what areas of uncertainty remain. Individuals will have had a chance to think about ways of transmitting HIV, and to discuss these with other group members. It will also be clear that transmission routes for HIV are very specific e.g. it is not 'sex' that transmits the virus, but unprotected sex involving penetration. People can sometimes become quarrelsome during this exercise so you may need to intervene to settle disputes.

True/false question sheet

		True	False
1.	You can become infected with HIV by sleeping around		
2.	Injecting drugs will give you HIV		
3.	You can get HIV from toilet seats		
4.	If you are fit and healthy you won't become infected with HIV		
5.	Married people don't become infected with HIV		
6.	If you stick with one partner you won't become infected with HIV		
7.	Women are safe from HIV as long as they use a contraceptive		
8.	You can become infected with HIV from sharing toothbrushes		



		True	False
9.	If you have sex with people who look healthy, you won't become infected with HIV		
10.	If you only have sex with people you know, you won't become infected with HIV		
11.	Anal sex between two men is more risky than anal sex between a man and a woman		
12.	You can become infected with HIV from kissing		
13.	A man can become infected with HIV if he has oral sex with a woman		
14.	A man can become infected with HIV if he has oral sex with a woman		
15.	Condoms can stop you becoming infected with HIV		

True/false answer sheet

- Sleeping around is not in itself risky, but having unprotected sex with an infected person is. By using condoms properly and by avoiding sex with penetration, you can substantially reduce the risk of infection.
- Only if the needle or syringe previously has been contaminated with HIV.
- There are no known cases of HIV infection via toilet seats.
- It does not matter how healthy or unhealthy you are, if you engage in risky activities you stand a chance of being infected.
- This depends on the partners involved, what they did before they met, whether either has unprotected sex outside of the marriage or injects drugs using contaminated equipment. Marriage by itself offers no guarantee of safety.
- As for No 5.
- Only condoms offer women protection against HIV, and even condoms cannot offer complete safety. Other forms of contraception do not offer protection from HIV.



8. There is no evidence of transmission via this route, but it is sensible not to share toothbrushes for general health reasons.
9. Most people with HIV will look perfectly healthy. Looks are therefore a useless way of assessing risk.
10. Knowing someone well offers no reliable guide to whether or not they have HIV infection.
11. Anal sex is equally risky regardless of whether it takes place between two men or a man and a woman.
12. There is no evidence of transmission in this way, although kissing when there are sores or cuts in the mouth may pose some risk.
13. HIV is present in cervical and vaginal secretions as well as in (menstrual) blood, so there is the possibility of transmission this way.
14. HIV is present in semen so there is a possibility of transmission in this way.
15. Condoms used properly will help to prevent transmission of HIV from an infected partner to an uninfected partner. Condoms are not 100% safe though. Any lubricant used should be water based, as oil-based lubricants can weaken the condom. When buying condoms check the 'sell by' date.

Maria followed the instructions and found that the method was very helpful in discovering some of the misconceptions her students had about HIV and AIDS. She also found that it took much longer with her big class of 56 students, and it was a bit chaotic the first time she did it.

So, the next time, she split the class into two groups and had one group write about things they knew or thought they did about HIV and AIDS while the others did the activity. In the following lesson, she swapped the groups around. Between lessons she was able to think about what the students already knew or thought they knew about HIV and AIDS and this helped her plan the next lesson.

Activity 3

Plan some role play lessons on an HIV and AIDS theme, see **Additional Resource: Using role play/dialogue/drama in the classroom** and the role play for HIV/AIDS lessons that are suitable for the age of your students. If they are sexually active, you might focus on prevention. Here are some examples of scenarios to use:

- John says he is in love with Mary. On a date, when they are alone, John tries to pressurise Mary to have sex with him.
- Jennifer, a pretty and clever girl, does not have the beautiful things some of her classmates have. Her uncle introduces her to his friend who likes Jennifer and wants to 'look after' her – but only if she will have sex with him.



You could use these scenarios to discuss the problems first and then ask your students to role play ways to deal with the problem.

With younger students, you could devise role plays which deal with misconceptions such as:

- Precious and Becky are in the washrooms at school. Precious wants to use the toilet but she says she will wait until she gets home or go in the bush because she does not want to catch AIDS.

Make your plan and then carry out the lesson. At the end, ask yourself: How well did it go? What did you do well? How could you improve your approach to help students understand and feel secure?

Role play for HIV and AIDS lessons

When thinking about the problems for role plays, make sure they allow your students to focus on positive reactions or behaviour. Research has indicated that scary and negative messages do not always encourage a positive change in behaviour. In a role play, students act out a situation spontaneously. This means they take on a role and decide what they are going to do and say on the spot. They do not rehearse or use a script. You cannot tell exactly how a role is going to develop. Role plays can:

- help identify attitudes of different people;
- help students to explore group or personal behaviour;
- help students see that other people have similar problems;
- help students develop interpersonal skills;
- provide a way to address sensitive problems;
- help students see things from other people's points of view;
- help students practise assertive behaviour;
- allow students to explore situations that concern them without revealing anything personal about their own knowledge, beliefs, experiences or situation.

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