TESSA

Teacher Education in Sub-Saharan Africa

Teaching Pack No.10

Middle Primary

Section 1	**Literacy:**	**Ways to build on home language**
Section 2	**Numeracy:**	**Exploring 3D shapes**
Section 3	**Science:**	**Investigating air**
Section 4	**Arts:**	**Using music in the classroom**
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Additional Resources:

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

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Literacy: Ways to build on home language

1. **Importance of the home language**
2. **Discussing ideas in the home language**
3. **Transfer from home language to additional language**

Key question for the teacher:

How can you build on knowledge of the home language to develop competence in the additional language?

Keywords: building; vocabulary; concepts; additive bilingualism

Learning Outcomes for Teachers:

By the end of this section, you will have:

- used the home language to maximise creativity, understanding and development of ideas
- understood the importance of interplay between the home language and the additional language

Overview

As a teacher, you want to maximise learning and skills in the additional language and so you need to make decisions about when and how to use the home language. Your choice of language should be based on what is best for your students' learning, rather than on what is easiest for you.

In many schools, the home languages of the students are used at home, and then only in the first few years of school. This often leads to a view that the home language is not worth much. Teachers and parents forget that it is important to build on the students' existing language knowledge and skills and use both languages.

1 Importance of the home language

This section shows how using the home language can maximise creativity, understanding and development of ideas, as well as development of the additional language.

Your students come to school with a rich background of human interaction and experience of the world. They also have a language to describe their world. When they use their home language they can draw on this experience to fill their speech and writing with detailed description and imagery. As a teacher, you need to encourage this, and draw out the knowledge that they have.

When it comes to speaking or writing in the additional language, students will often not realise that they can still draw on this knowledge. Teachers, too, may forget that their task is to help students transfer their knowledge in and of their home language into the additional language, rather than building from scratch.

In this part, we suggest that you help your students to express what they know and imagine in their own language, and then to think of ways to carry a similar meaning across into the additional language.

Teaching Example 1

Mrs Nonhlanhla Dlamini teaches English to 64 Grade 6 isiZulu-speaking students in the Nongoma district of KwaZulu-Natal, South Africa.

One day, she read and discussed examples of praise poems and stories with her students and suggested that they write their own. They were quite excited, but their initial attempts in English were very disappointing so she decided to try a different approach.

Mrs Dlamini asked her students to work in pairs to tell each other what they wanted to write and help each other to write their story or poem in isiZulu. Next, they worked in their pairs to write English versions. She reminded them not to do word-for-word translations because the grammar and vocabulary of the two languages is built up in different ways.

The second attempts at writing in English were much more interesting than their first attempts, though still not as rich in detail and interest as the Zulu versions.

Mrs Dlamini did some vocabulary building work with students to extend their range of verbs and adverbs in the additional language, as she noticed that this was an area of weakness. Next, she then asked students to rework their own writing, using a greater range of verbs and adverbs.

After signing their writing, students placed their poems and stories on a table at the back of the classroom. They enjoyed reading each other's stories.

Mrs Dlamini noticed how many more verbs and adverbs became part of her students' regular vocabulary as a result.

Activity 1

Write on the board the 'insults' poem 'You' found below.

- Read it with students and discuss each comparison, e.g. 'head is like a hollow drum' makes one think it is big and empty, etc.
- Ask them to write a 'compliments' poem, as a class, about a well-known person they admire.
- Decide with them which aspects of the person they will describe. If the person is athletic, they might choose physical attributes: legs, figure, walk, etc.
- Now distribute these attributes to groups, or individuals, and ask them to think of comparisons in the home language.
- When they feed back their comparisons, decide, as a class, on the best comparison for each attribute, and write them up, in the home language.
- Now discuss how they would say something similar in the additional language. Direct translation will not work, but try to create a similar impression.
- In this way, build up the poem with your class in the additional language.
- Ask them to make up a poem of their own – 'insults' or 'compliments'. Students should make sure they cause no real offence!

How well did this approach help the students develop their vocabulary in the additional language?

You!
Your head is like a hollow drum.
You!
Your eyes are like balls of flame.
You!
Your ears are like fans for blowing fire.
You!
Your nostril is like a mouse's hole.
You!
Your mouth is like a lump of mud.
You!
Your hands are like drumsticks.
You!
Your belly is like a pot of bad water.
You!
Your legs are like wooden posts.
You!
Your backside is like a mountain-top.

Igbo

Teacher notes relating to poem

The above poem is a series of similes. (In this case, the series of similes is also a series of insults!) A simile is a comparison, used to highlight certain qualities in a person or thing that is being described. When you read or hear a simile, you picture the 'mouse's hole' (for instance), and that helps you understand

something about the nostril. In analysing the simile further, you say to yourself, 'What is a mouse's hole like? It is quite big (compared to a nostril). It is dark inside. It is full of messy nests and it is dirty.' Then we can see more clearly what the poet thinks about the person's nose!

A simile is an explicit comparison. In other words, the writer or speaker is open about the fact that this is a comparison. A simile, in English, always uses the words 'like', or 'as', e.g. 'Your nostril is like a mouse's hole' or 'In the tunnel, it was as black as night.'

If the poet had written 'Your nostril is a mouse's hole' this would have a similar impact, but this kind of comparison is called a metaphor. Here, the comparison is implicit. We are not told that a comparison is being made. The nostril is described as if it is a mouse's hole.

Original source: Machin, N. African Poetry for Schools: Book 1

2 Discussing ideas in the home language

People often feel that a teacher should use only the additional language in class in order that students become as fluent as possible in it. This is not an unreasonable view and it does work well in certain situations. However, the reality in many African classrooms is that:

- there are no native or very competent speakers of the additional language (students or teachers) in the school
- students have little exposure to the additional language outside of the classroom
- most teachers do a lot of code-switching (i.e. alternating languages while they are talking)
- if only the additional language is used, students are lost most of the time, especially in the early years of learning the new language

When students have learned the additional language for a few years only, and do not have much exposure to it outside the classroom, they can only understand and make sentences relating to everyday realities. They are often not yet able to use it to discuss ideas and concepts. In order to extend learning to discuss ideas, it can be useful to take a bilingual approach.

Teaching Example 2

In Kibaha, Zawadi Nyangasa led her Standard 7 English class in a lesson based on a story about a king and a shoemaker. She wanted them to think about the nature of true 'wisdom' and 'cleverness', and the purpose of education.

She read the story aloud to the class, stopping from time to time to ask questions to check understanding. Most of the questions and answers

were in English, but there were times when she used the mother tongue to clarify a concept or to relate the story to the students' life.

After reading the story, she asked the students to discuss the following questions, in small groups of four to six. She encouraged them to use their mother tongue.

- Do you think the shoemaker was an educated person? Was he wise? Clever? Happy? What are your reasons for saying so?
- What are the important things that we learn at school? Why are they important?

They reported back in their mother tongue, and had a general discussion on the questions. She made notes on the board, also in the mother tongue.

Activity 2

Read the box below and think about aspects of the reading that may cause difficulties for your class.

Safety starts with the spirit of Ubuntu by Buyi Mbambo.

When I was growing up I felt safe. I could walk everywhere by myself; I could go to the forest to collect wood; I could go to the river, even if I was the only one on the long, winding footpath. The only things I was afraid of were imaginary ghosts, wild rats, and maybe the cattle I would cross paths with.

The sight of a human being, an adult, was a welcome one, because whatever came from them was filled with love and concern. Yes, adults would be angry that I was on my own late in the afternoon; they would wait for me and help me put the bucket on my head. They would make sure I took the safest route home; sometimes they would shout for people to meet me half way. On the way to and from school, there would always be an adult curious about where we were going, concerned about how late we were, or about our appearance.

In my mind, as a child, adults were nosey. They did not hesitate to go home and tell my parents they had seen me doing something wrong; by the time I reached home I would have been 'talked to' seriously by all adults, whether they knew me or not. Nosey or not, I had a privileged childhood, as did many of today's adults.

A lot has changed for today's children. Families have been broken up by a number of factors; the culture and spirit of concern and high regard for children, and for one another, has been destroyed. Children and families live more and more in isolation and there is a general hesitancy about becoming 'involved' in the affairs of your neighbour, even if your involvement could save a life.

Extract taken from: Children First

Read the passage with your students, discussing any unfamiliar words or concepts.

Ask them how the adults in their world behave:

- do they behave like the ones described in the first three paragraphs of the passage, or like those described in the fourth paragraph?
- is the behaviour of adults helpful to them as young people? Why, or why not?

Have this discussion in the home language. If it would encourage deeper discussion, let students discuss in small groups, and report back after 15 minutes or so.

Ask them to choose an adult they know whom they admire and write a description of this person, using a language of their choice. Read 'Who is my father?' They could work in pairs or groups of three or four.

Who is my father

My brother

My brother's name is Ipyana Mwakipesile. He is 18 years old and he is like a father to me. My father died a long time ago. He plays a major role in our lives though he is a very young boy doing Standard I at Azania High School. He is responsible. He takes good care of us. He cooks food and cleans the house. He looks after baby because my mother passed away a few months ago. Every afternoon he closes the gate so that we are safe inside. He supports us in every way. We don't feel that our mother is also no longer there for us. My brother always gives us that love we used to get from our parents. Every Saturday, he bakes cakes, does shopping as my mother used to do. My brother is like a father to us. We trust him, we love him.

My father

My dad was born and raised in Mbeya [from] where he later moved to Dar. He attended Minaki Secondary School and within those two years, his mother died. His father left him and his two younger sisters. He lived with his grandparents and then his aunt before being moved to an orphanage.

During his years in the orphanage, he had to face many adversaries and learned many lessons. He was exposed to bullies and often had to protect his sisters. Although it seemed that he had a hard time, he appreciated all that he had at the orphanage. The hardest thing for him was not having his own family.

As a result of his upbringing in the orphanage, he learned to fend for himself. In matric, he was made head boy at his high school. He also was very popular and took part in various cultural activities as well as sport.

After school he did his national service and saw many parts of Tanzania. He often shares stories and events that he experienced during his time in the army. His experiences in the orphanage helped him cope with life in the army and he was placed in the leader group, and became an instructor. My dad has always had very good and special friends and has always been in some or other leadership role. Here he discovered that he had a special

talent for teaching. After doing his national service, he went to study to become a teacher.

At college he met a girl who became a very special person in his life. After his studies he because engaged to her. It did not work out and it was at this time that my mother came to work on the same staff as my father. They because friends and were later married.

In 1990 I was born and ever since, I have been close to him.

My father has played an important role in my life, and I someday wish to pass on this gift he has given to me. He has been my teacher, my sports coach, my mentor and most of all, my closest friend.

Adapted from 'Children First' Nov/Dec 2004/ Vol 8 No 58, pages 5, 6, and 7

Collect their work and give feedback. They may have shared deep feelings, so respond in a human way to the content, rather than focusing on the grammatical errors, etc.

3 Transfer from home language to additional language

Once skills and understanding are established in a well-known language, it is easier to transfer them to an additional language. Many academics also believe that if a person can look at a subject through the perspectives of two languages, their thinking skills are improved. It is important that you make sure your students see themselves as richer – rather than poorer – because they have two or more languages.

When your students have discussed ideas in the home language or lingua franca, it is valuable for them to find and learn ways of expressing these in the additional language. You need to continually think of ways to help them do this. This part offers you some ideas.

Teaching Example 3

Zawadi made sure that the Kiswahili notes from the lesson on the king and the shoemaker were not rubbed off the board.

In the next Standard 7 lesson, she started discussing with the students how they could answer, in English, the questions she had asked.

They talked about some of the key Kiswahili words or phrases they had used, terms like tabia, maumbile. What kind of person, or quality, did each term refer to? Did they know people with these qualities?

They also discussed, in the same way, some of the key English words in the questions: educated; wise; clever; happy; learned. She reminded them that there are not always direct translations for words from English

into Kiswahili, or from Kiswahili into English. However, they found ways of expressing the ideas that were on the board in English. In the process, they learned new language structures and some new vocabulary.

Zawadi put these on the board and asked them to work in groups and write English answers to her two questions. The group could create the answers together, but students had to write their answers individually.

Zawadi found that this code-switching helped her students develop their English much more.

Activity 3

Ask some of your students to share their descriptions of adults they admire with the class. Ask the class to identify one or two adults they admire in the community, and see if these adults would talk with the students.

Decide on a few questions to ask, e.g.:

- what is most important for you, in life?
- what life experiences have made you stronger?
- who had the greatest influence on you as you grew up?

Agree who is going to ask the questions, and how to record what the person says. Students and adults will probably use the home language.

After the visit, discuss what the students learned.

Ask your students: What qualities and values would you like to develop as you become adults?

Work out home language and additional language terms for these, and write them up.

Ask them to write out their own 'vision' and/or 'mission statement' in the additional language.

Vision and mission statements – some examples

A vision statement is usually short. It is focused on the future and what you aim to become in the future.

A mission statement is often a bit longer, and gives more detail of what has to be done to achieve the vision.

Here are two examples:

Vision statement for the School of St Jude, Northern Tanzania

To be an exemplary, modern and self-sustainable institution that effects a paradigm shift on the educational system in Tanzania by enabling Tanzanians to run successful and moral schools, thereby alleviating poverty and breaking the cycle of dependency on external aid.

Mission statement of an anonymous man

To be the person my children look to with pride when they say, 'This is my dad.'

To be the one my children come to for love, comfort and understanding.

To be the friend known as caring and always willing to listen empathically to their concerns.

To be a person not willing to win at the cost of another's spirit.

To be a person who can feel pain and not want to hurt another.

To be the person that speaks for the one that cannot, to listen for the one that cannot hear, see for the one without sight, and have the ability to say, 'You did that, not I.'

To have my deeds always match my words through the grace of God.

Original source: Covey, S. et al. First Things First

Numeracy: Exploring 3D shapes

1 2D shapes and 3D objects

2 Pyramids

3 Observing and making 3D objects

Key question for the teacher:

How can you use practical tasks to investigate the relationship of 2D to 3D shapes?

Keywords: polyhedra; investigation; patterns; surfaces; edges; vertices; polygons; subject knowledge

Learning Outcomes for the Teacher

By the end of this section, you will have:

- developed your own subject knowledge of regular polygons (2D shapes) and polyhedra (3D objects)
- explored practical activities to help students investigate the relationship between polygons and polyhedra

Overview

The process of building real geometric solids provides an informal and practical way for students to get to know and understand geometric objects.

Because students are able to touch the shapes and objects being studied, they feel more confident about thinking in a more abstract way. If these shapes are linked to objects in everyday life, this helps students' thinking and visualisation.

1 2D shapes and 3D objects

To explore and investigate polyhedra, it is important to have examples in your classroom. There are several commercial plastic building sets to make 3D objects that can be bought to use in the classroom, but it is as easy to make your own from recyclable materials such as plastic, card and thick paper. Making their own shapes helps students understand the properties of shapes better.

Plastic drinking straws can be used with thread and wire to build 'skeletons' of 3D models. As a teacher, make it a habit to keep objects that may be useful in the classroom – for example, always keep a straw whenever you buy a cool drink. Ready-made nets of various solids that fold up for storage can be used to help students explore the difference between 2D shapes and 3D objects.

Teaching Example 1

Mrs Yomba, a primary teacher in Lindi, Tanzania, wanted her students to be aware of the difference between 3D objects and 2D shapes. She knew this was sometimes a difficult concept for them.

She described 3D objects as those 'one can pick up, like books, pens, desks, etc.'. She said that 2D shapes are things you can see but that you cannot pick up: an image of a horse on a photograph, or a painting of a person, even a square drawn on paper. She said, although one can pick up the photograph or the painting, one cannot pick the horse out of the photograph or the person out of the painting.

She then invited them to suggest other things that could be regarded as either 2D or 3D in the classroom. Some students were quite excited about the distinction, but others really struggled to believe that a piece of paper or a window are 3D objects because they were 'too thin'.

Mrs Yomba decided then to give her students homework. She asked them to go home and tell their parents about what they had learned, and that their homework task was to bring a list of at least ten things from home or the local environment that are 3D. She believed that by doing this they would consolidate the work they had done in class.

Activity 1

Before you teach this lesson, you need to collect or make some 3D objects and keep these in a box

- Triangle
- Square
- Pentagon
- Hexagon
- Septagon
- Octagon

Organise your class into groups of between six and eight. Ask your students to look carefully at the shapes and objects in the box. Ask your students what shapes, like squares and rectangles, they can see in the objects.

Tell them the names of the objects:

- Prism e.g. cube, cuboid, cylinder
- Pyramid e.g. cone, sphere

Ask them if they know other objects that look like these shapes around the school and near their homes.

Explain that all the solids, except the cylinder and sphere, are also called polyhedra. Ask them: 'Why do you think cylinders and spheres are not considered polyhedra?'

Tell them that the word polyhedron is from a Greek word for 'a seat'. Prisms and pyramids have many flat surfaces like seats but a cylinder is not a polyhedron as it has a curved 'surface'.

Finish the activity by asking each group to count the surfaces on each object. Ask them to record their answers in their books. Share each group's answers as a class.

For homework, ask them if they can see any of these shapes on their way home – or at home – and report back the next day.

2 Pyramids

Pyramids interest students. Here we explore how to visualise different pyramids. The teacher in **Teaching Example 2**, by doing some cross-curricular work, showed his students that mathematics has connection to other subjects and to real life. **Activity 2** looks at the mathematics of pyramids by asking students to make their own, using nets.

Teaching Example 2

When Mr Ahmadu planned his lesson, he wanted to involve other teachers and to give his students more than just a mathematical experience. He spoke to his colleagues in social studies and they gave him a picture of groundnut pyramids in Maiduguri, Nigeria.

He displayed the picture where all his students could see it and asked them to tell him what they knew about the picture. Mr Ahmadu made a mind map of what they knew about how the pyramids were built.

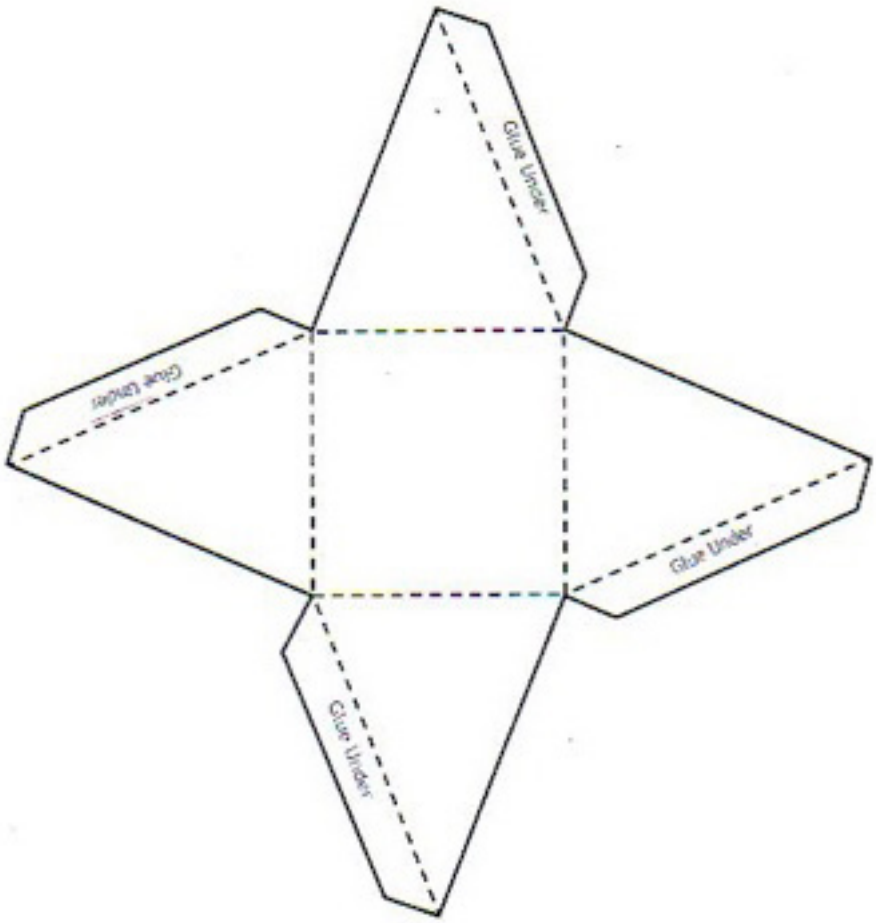
Next, he organised them into small groups to discuss the pyramids and list any questions they had about them. He collected all their questions together and sorted out those that were about the structure of the pyramids and their shape.

He gave each group a pyramid that he had made from cards. He asked the groups to think about the shape and structure and any common features – i.e. sides, edges and surfaces on each.

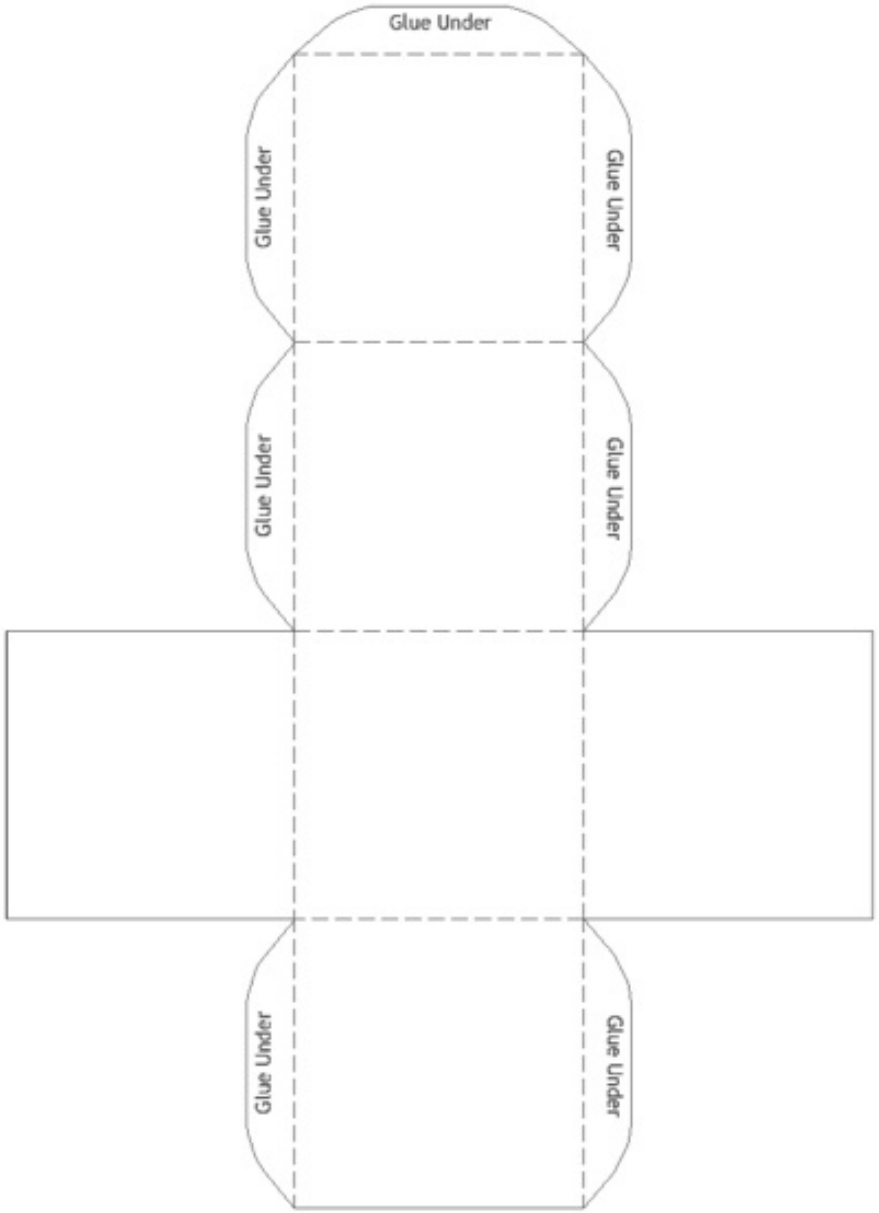
Below are templates for different 3D objects that your students can make.

Tetrahedron template

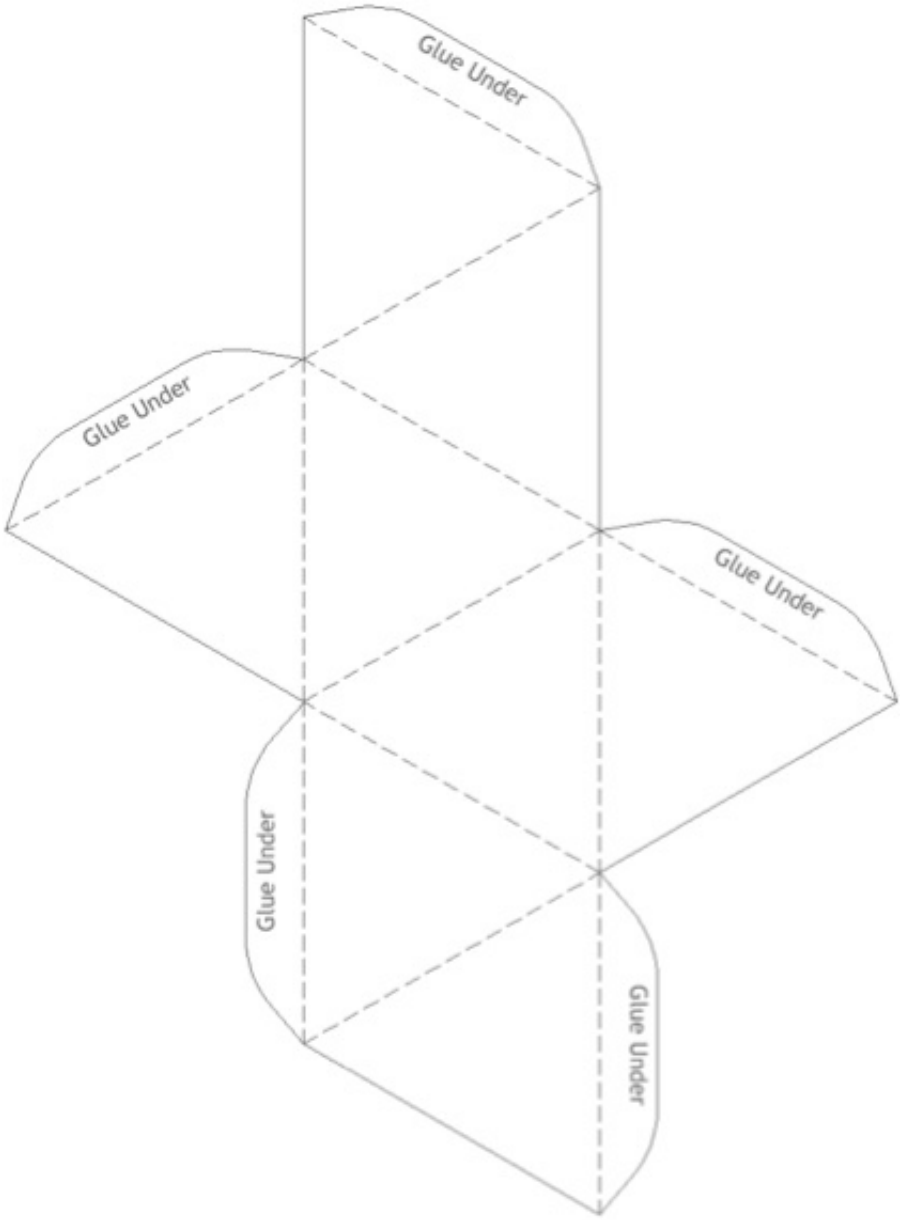
Net square based pyramid



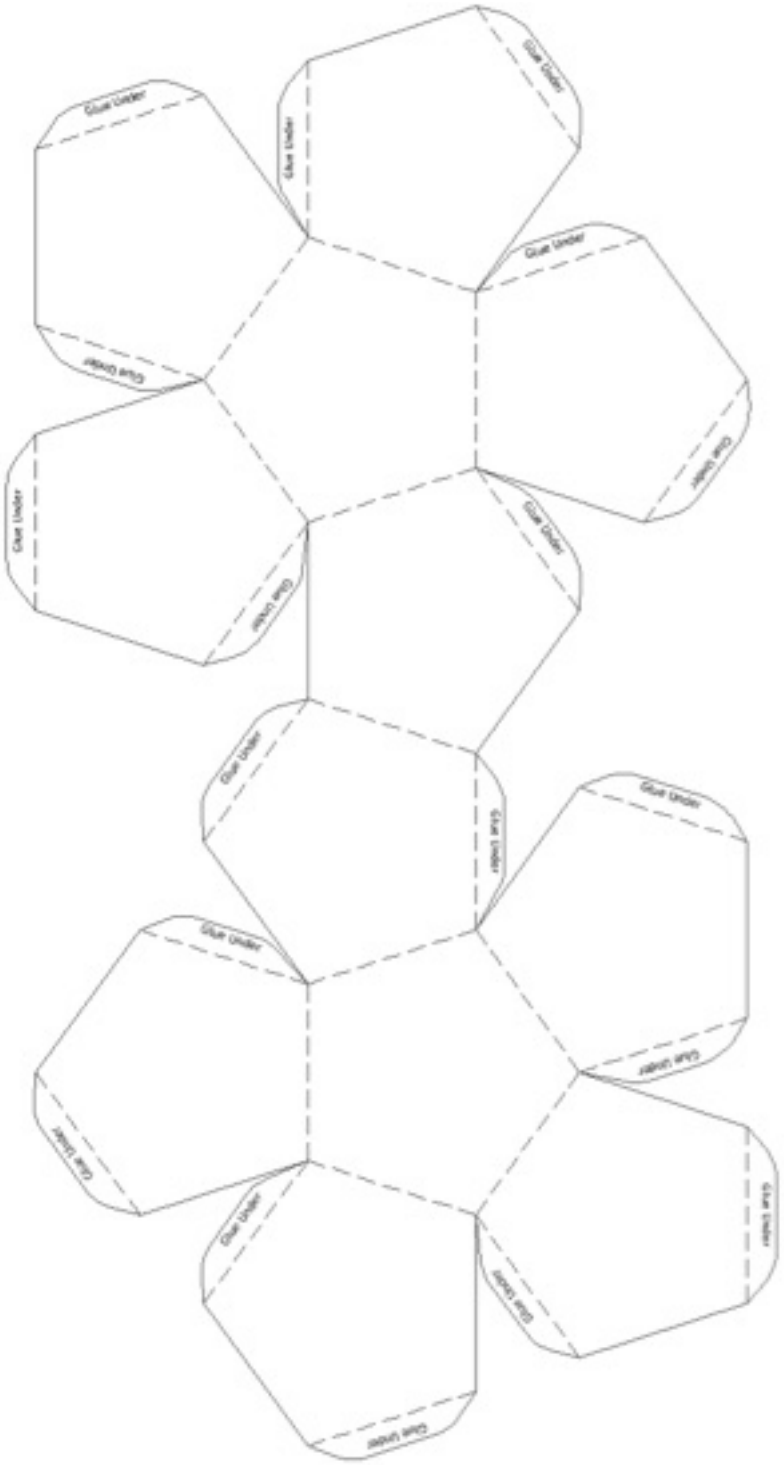
Cube template

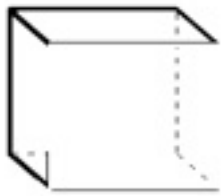


Octahedron template

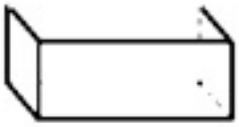


Dodecahedron template

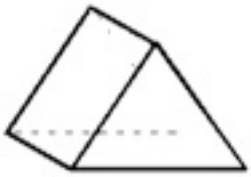




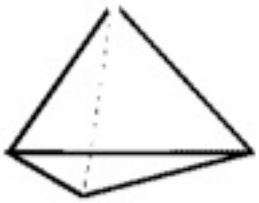
Cube



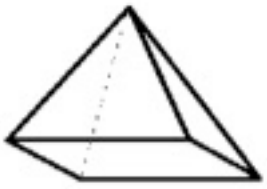
Cuboid



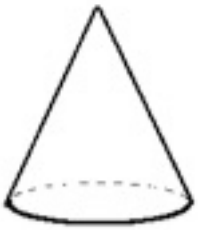
Triangular prism



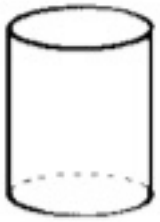
Triangular based pyramid



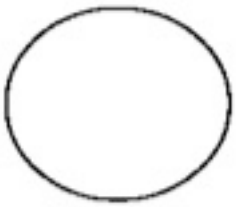
Square based pyramid



Cone



Cylinder



Sphere

Next, he asked them to think how people were able to build such large structures as the pyramids in Maiduguri. He showed them more pictures of how pyramids were built and this really interested his class. As a result they asked their social studies teacher to tell them more about the pyramids.

Mr Ahmadu felt that this mixing of mathematics and social studies helped his students' motivation as they began their mathematics work.

Activity 2

You will need copies of the nets, paper, scissors and sticky tape or glue. If you only have enough materials for one group to work at a time you can spread this activity over a week.

- Explain to your students that pyramids can have bases of any number of sides – the simplest have equilateral triangles on all four surfaces, but pyramids can be made with any regular polygon as a base: the groundnut pyramids are made of triangular sides, but have square bases.
- Give out the nets of triangular and square-based pyramids, and ask students to cut, fold and glue these to make paper pyramids. Mount a display of them.
- Next, place some straws or matches on each group's desk and ask if they can, using string or sticky tape, make a pyramid out of these materials. Go around and support the groups while they work. Let them share what they did to make their pyramids.

3 Observing and making 3D objects

In this part, we move to a more formal exploration of different shapes through using activities that involve students making careful observations before making some different 3D objects themselves.

Teaching Example 3

Mrs Bako wanted to extend her Primary 5 class' understanding by building some polyhedra to make a new set of mobiles to hang in her classroom. She asked her students to group themselves into teams of six to eight and gave each group scissors, card and glue. She asked each group to make 32 equilateral triangles, 6 squares and 12 pentagons. She wrote the dimensions for each shape on the board.

She asked them to investigate how many different polyhedra they could make with their polygons by following these rules:

- Use one type of polygon at a time to make the polyhedron.
- The polyhedron must be a closed shape. All the edges must join up.

The students really enjoyed the task.

Next, she gave them nets of regular polyhedra and asked them to cut them out neatly, fold them and paste them to make polyhedra. They found that the shapes they built were the same as the polyhedra they had discovered.

She discussed whether it was easier to make the nets into polyhedra or easier having the shapes loose. Most students agreed the nets were quicker.

Activity 3

First, consolidate students' learning from earlier activities. For this, you will need your box of shapes and objects and charts to record results (see table for recording results)or ask your students to draw the two charts in their books.

Organise your students into pairs or small groups. Give them one of the items from your shapes box, and ask them to carefully look at the shape and complete the chart as best they can.

Suggest they complete a row at a time. Ask them to return their shape to the box and take another one until they have looked at every shape.

After an appropriate time, ask one pair or group to give their answers to the class for one shape. Go round the class until all the shapes' features have been shared and each pair has been able to check their answers against everyone else's.

Ask them if they noticed any patterns in their observations. Which shapes and objects are related?

Display their charts.

Recording results

Shape, Space and Measures – Shape

Shape Up!

Complete this 2-D shape table...

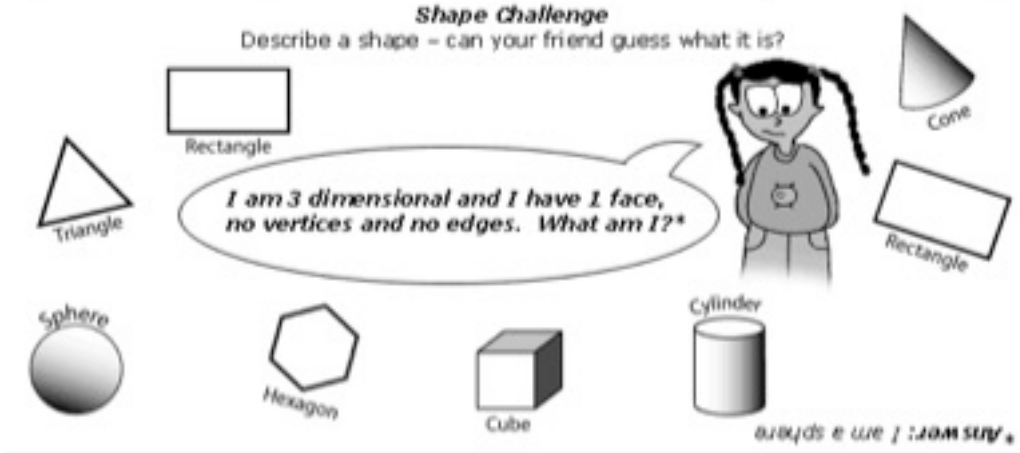
Name of Shape	Number of Sides	Equal Sides?	Parallel Sides?	Number of Angles	Equal Angles?

Now finish this table for 3-D shapes...

Name of Shape	Faces	Vertices	Edges

Shape Challenge

Describe a shape – can your friend guess what it is?



Original Source: http://www.bbc.co.uk

Science: Investigating air

1 An introduction to air

2 Marvels of air

3 Air is all around us

Key Question for the teacher:

How can you use models, experiments and discussions to help students build a picture of air?

Keywords: gases; air; particles; assessment; model; investigation

Learning Outcomes for the Teacher

By the end of this section, you will have:

- considered how to support language learning in science
- explored ideas about air and particles with your students
- used different ways to assess your students

Overview

This section has two main purposes:

to increase your own awareness of how language supports students as they think and behave scientifically;

to do this as you help students understand the nature of air and how it behaves.

Classroom teachers often resort to teaching science with talk in the mother tongue and writing and testing in the target language, such as Arabic, Kiswahili, English or French. Yet much valuable language learning can take place in science lessons because the language to be learned is 'linked to action'.

1 An introduction to air

This is the focus of **Teaching Example 1**. Even the action of 'pointing out' something in a short demonstration can help you assess students' learning. What students say, as they point out something, reveals what they know. You follow this up in Activity 1 with a series of investigations in which the emphasis is on careful observations and deductions – what do students' observations tell them about the nature of air? Encourage the use of lots of different descriptive words; this is an ideal time to reinforce language learning.

Teaching Example 1

Many teachers of younger students do not believe you can teach a whole science lesson through the medium of English. 'The children will be lost,' they say. At a recent workshop in South Africa, the co-presenter, Lawrence Manzezulu, challenged them to try.

We planned a lesson together (see below) with many opportunities where talk and thought could be linked to action. Nervously, a teacher volunteered to do the teaching, starting by explaining that she would only be speaking English – but students would be free to talk in whatever language they needed at the time.

She ended the lesson by asking what they had learned, and one student said (supporting his use of English with gesture) 'We have learned, M'am, that air is up, down, in, out, all about.' (That was an unforgettable teaching moment.) And the teacher said her first Xhosa word – 'ndiyakumsha!' ('I have mastered it!' in English).

An introductory 'air' lesson

Begin by giving one student a bucket and asking them to go outside to fetch you half a bucket of water. Then give another student a large clear plastic bag and ask them (you might want to pick a student who can take a joke) to go outside to fetch you half a plastic bag of air. This will surely cause a brief moment of puzzlement as it is of course a bit of a joke – but it proves a point – 'air is all around us'. Insist that the air is fetched from outside. Then hand out three or four more clear plastic bags with which to catch air from:

- under a desk
- in the far corner
- by the window
- from one student's own lungs

Emphasise to your students that air is all around us.

Divide the class into eight groups. Each group should choose a leader. Explain that when they come back after the break, they will take turns to work for ten minutes at each of four workstations to find out some more about air. This is called rotating group work.

During break time, set out the workstations with the necessary equipment, and a copy of the work card for each station.

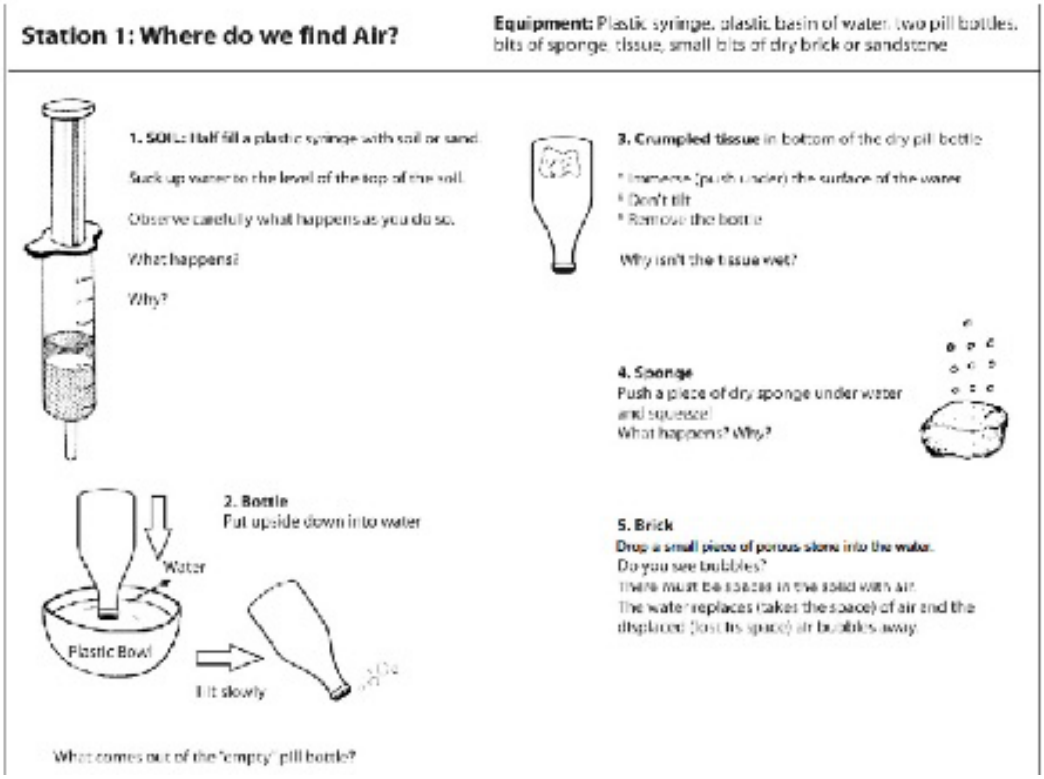
You could get the eight group leaders to help you do this so that they have been prepared for leadership roles in what is to come.

Then it is over to the groups to do the work. At the end of the lesson, ask students to summarise what they had to think about and what they feel they learned at each workstation.

Activity 1

Take a soccer ball (or other ball) and tell your students it represents the Earth. Hold it out in your left hand and move your right pointing finger slowly towards it from a distance as if it were a spaceship coming back to Earth. Tell students to raise their hands when they think the spaceship has reached the air. (Note when the hands go up.) Stop when you are a few millimeters from the surface of the ball. Tell them, 'Here! Here is where the air starts.' **Did any students think or know that?**

Now ask pairs of students to work through the small experiments in the box below to find out more about the air around them.



Ask students to record what they have found out about air:

- what it is like;
- how they know it is there;
- how it is different from water.

Are you surprised by their ideas? Listening to their ideas and observations gives you an opportunity to assess their understanding of what air is and how it behaves.

You could start by observing and comparing non-living things, for example sheets of paper, parachutes, kites and airplanes. It can be useful to observe and compare things dropping, or falling through air. It begins to give students the idea that air must consist of small particles that are free to move, but nevertheless get in the way and push against things as they drop.

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2 Marvels of air

In Teaching Example 2, we read how a teacher uses a student's question to get the class talking and thinking about how airplanes stay up. **Activity 2** starts by getting the children observing using different languages, and then moves to a practical challenge where students' thinking is revealed by what they do to solve a problem.

Teaching Example 2

When Paulina Kiyonga at Kamonkoli Primary School gave her students the chance to raise their own questions about air, Mutumba wanted to know what kept an airplane up in the air. Paulina got some advice from a colleague at nearby Kamonkoli High School. Read his advice in 'What lifts an airplane?' below.

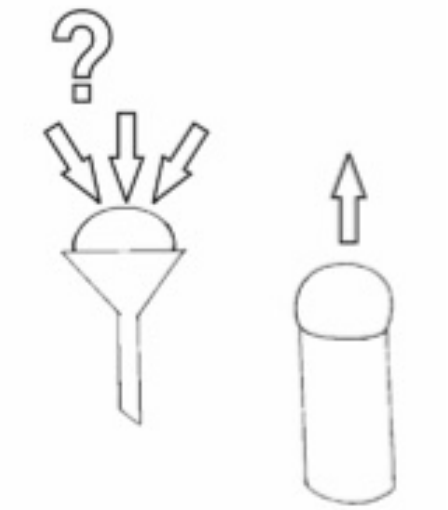
Some of the demonstrations and activities he suggested really puzzled the students, especially the one where the table tennis ball could not be blown out of the funnel, no matter how hard David tried. Yet tiny Jimmy could hit the roof by blowing through a tube of cardboard. What impressed Paulina most was that her students even suggested some changes to the 'blowing under the paper bridge' activity. What would happen if the bridge were the other way up? She praised them and let them test this out as well.

At the end of the lesson, they gave a short presentation to the head teacher about this question:

'What lifts an airplane?' Practical activities to carry out with your class

One of the questions that children ask is 'What keeps something heavy like an airplane up in the air?' This is a really good question. Their teacher explained that there were a number of practical things that could be done to hint at how an airplane was lifted. But it does take quite careful explaining.

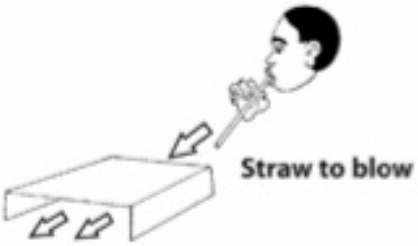
One way to get people thinking is to compare blowing ping-pong balls with two different tools. You need the cardboard tube of a used toilet roll and a plastic funnel. You want to blow the ping-pong ball against the ceiling. Ask the class to predict which tool will be the best ping-pong ball blower – the toilet-roll tube or the plastic funnel. Then let them try.



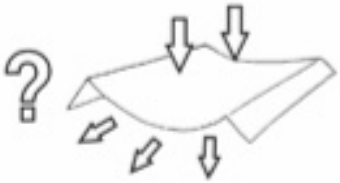
Now this is something to think about because the result is quite unexpected!!!

What is happening in the funnel that holds the ball down so strongly? It can only be the air!

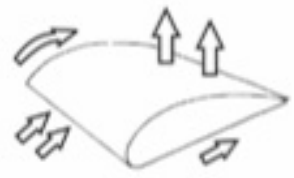
Another teacher gives us another practical activity to try. Make a little bridge of paper by folding down two sides. Use a straw to flow air under the 'bridge'.



What do you predict will happen? What does happen? Why does the bridge collapse inwards and not bulge outwards?



A third thing to try is to fold a sheet of A4 paper slightly off-centre, and then to glue down the two ends to form a model of the wing of a plane or a bird. Blow straight against the front edge and see what happens. The paper model lifts up. Why?

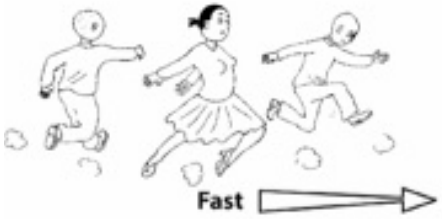


Clues

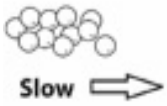
Think of a group or cluster of people walking along a road. They hear something dangerous behind them and start to run away. What happens to the arrangement of people?

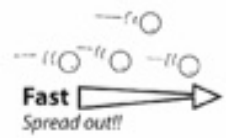
Yes. They tend to spread out as their speed increases.

Now, try the same thing with a handful of marbles. First roll them slowly across a smooth surface and they tend to stay clumped together. Then roll them more speedily and they tend to spread out.

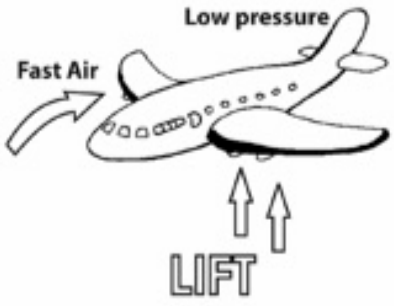


When air is forced to move more quickly over a curved surface or through a narrow space, the particles spread out. This means that there is less pressure. So you can get a strong force or lift from the air on the other side.





It can be useful to observe and compare things dropping or falling through air. First we tried paper races. We compared the way two identical bits of paper, labeled A and B, fall through air. Why does a crumpled sheet fall more quickly? Trying to find the best words to describe the observed movement of the flat sheet and the crumpled ball makes for an excellent multilingual language activity.



Paper A (flat)

Floats

Wobbles

Twists

Dives

Zigzags, like a leaf or a feather

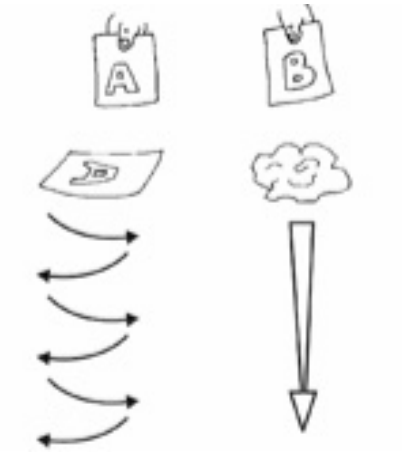
Paper B (crumpled)

Drops

Straight

Fast

Falls, like a stone



Activity 2

First, demonstrate the 'fast paper race'. Stand on your chair or table and hold high two identical sheets of A4 paper, labelled A and B.

- Ask students to guess which one will reach the ground first. Just before you drop them, crumple paper B into a tight ball. Repeat the action a few times asking the students to observe and compare carefully.
- Draw a two-column table on the board to record their observations and descriptions of how each paper fell. Students use the languages they know to describe the movement of the papers. This makes an excellent multilingual activity and gives you a chance to assess your students as they think and talk.
- Finish with the 'slow paper race'. Give pairs of students identical long strips of paper about 30 cm x 5 cm. Their challenge is to modify (change in some way) the paper, so that it falls very slowly through the air. Which design falls slowest?

The slow paper race

You can cut, tear, fold, glue.... anything you like except discard any paper.

Problem - You have a trip of paper the size of a ruler. You want to design a way to make the paper fall as slowly as possible through the air.

In nature plants have this same problem when they want to disperse their seeds. How can they delay the actual falling of the seed so that the moving air can spread the seed away from the mother plant.

- So think carefully before you do anything to the paper. Try to visualise in your mind's eye- how you will change the paper strip. Tell the person next to you what you plan to do and why. Decide finally exactly what you want to do. Do it.
- Then work out a way to find out who in your group has designed the best way to make the paper fall SLOWLY!!

Adapted from: Primary Science Programme Grade 4 Air Workshop Report

3 Air is all around us

The activities in this section will have begun to give the students some sense of what is called 'the particulate nature of matter'. If you watch the way a sheet of paper cuts its way through the air as it falls, you can almost imagine the invisible particles getting in its way. Paulina mentioned particles when explaining the low pressure above the wing of an airplane.

It's difficult to show students the particles in air – they are far too small to see even with a microscope, so we need to use models to help our students build a picture of what air is like. In Activity 3 you use the students to be particles in the air. Many students enjoy learning by touching and doing, they enjoy being active and find it easier to remember what they have actually experienced.

In Teaching Example 3, one teacher builds a model to show how air is made up of a mixture of different particles and follows this up with investigations around breathing. Both types of approach give you the opportunity to assess your students' learning.

Teaching Example 3

Mabel Amooti really enjoyed science at high school, and she was enthusiastic about her students learning science in an active way.

Her class had been looking at air and talking about how it was made up of different gases and how people breathe in oxygen and breathe out carbon dioxide. Mabel wanted to show that this isn't right. You breathe in a mixture of gases and breathe out a mixture. It's just that there is more oxygen in the air you breathe in and more carbon dioxide in the air you breathe out. How could she show this? The particles of each gas are invisible. To make it clearer, Mabel demonstrated with a model.

She used everyday granular solids (salt, pepper, sugar, sand) to represent the separate parts of air and then very clearly mixed them together. She was then able to show that it wasn't possible to just inhale oxygen. Rather, all the gases go into our lungs but only the oxygen moves into the bloodstream.

She followed this with two questions to her students:

- How many times do you breathe out in a minute?
- How much air do you breathe out in a normal breath?

She was delighted with their results. The class produced a lot of data. Together, they looked at the data and tried to answer questions such as: Who breathes faster, boys or girls? Older or younger students? and so on. They displayed their findings in charts on the wall using large sheets of newsprint.

Activity 3

First, squirt a small amount of an air freshener into the air in one corner of your classroom. Tell students to put up their hands when they can smell it.

Ask: How has it got to your nose? Guide their discussion to ideas of particles; air is made up of very small particles, which are moving round all the time.

- Now tell your class that they will be air particles.
- Take them outside to a suitable space.
- Tell them they must freeze when you call 'stop'.
- Ask them to run around.
- After a minute call 'stop'.
- Ask: Where are you all? How are you arranged?
- Select five students to stand near you and give them each a hat.
- Now ask everyone to resume running.
- Call 'stop' after a minute.
- Ask: Where are the students with the hats? Have they spread out?

Gather your students round you and talk about this model. Who were the students with the hats? How will they move if the gas is hotter? Colder?

Take your class inside and ask them to use these ideas to work in groups to draw a poster to show how cooking smells spread through a house.

Finding out more about air: Lesson Plan

1. Brainstorm What do we know about air?

We suggest that you start with a brainstorm and spend about 10 minutes recording what is known about air in the form of a mind-map

Finish off by asking what pupils think of the statement

We breath in OXYGEN and we breath out CARBON DIOXIDE.

Tell them that there is a big problem with such a statement. Ask if anyone can think why.

Point out to the class that air is a mixture of gases and not just one single substance.

Explain that they are going to make a 'model' to represent the mixture of gases that form the Air.

2. What do we mean by a model?

Pupils probably need to know that a model is a tool to help build a clear understanding of what we think something is like.

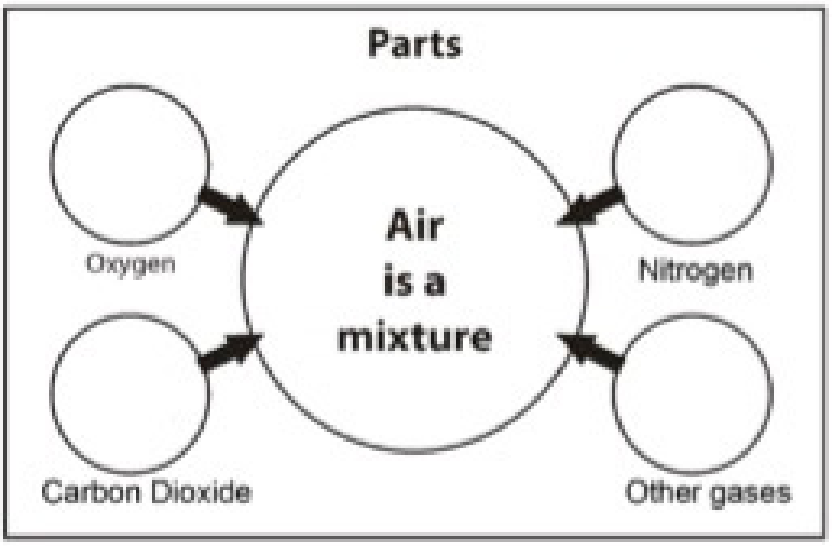
One way to do this is to compare a real child with a doll, as in the table below. We think this really helps the pupils make sense of the next part of the lesson.

A child	+	**A doll**
	Both	
Can talk	head	Plastic
Walk	arms	No heart
Eat	legs	small
Breathe	eyes	can't see
Play	ears	
↓	nose	↓
	mouth	
	fingers	
	e.t.c.	
Real		**Model**

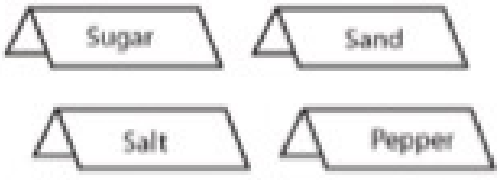
Making Air Easier to See and Feel

If we catch a bagful of air in a clear plastic bag we can see that it is there and we can easily feel it. But we still can't see what makes up the air. We cant see the parts like we can for a person or a doll. We need to make a model to help us understand that Air is a mixture.

Now let them work in groups and give them careful step by step instructions so that they prepare a blank A4 sheet like the drawing on the right.
Have a teaspoon for each group as well as some clean sand, some sugar, some salt and some pepper.
Explain that sand represents nitrogen, sugar represents oxygen, and salt represents other rare gases.
Tell them to measure out 4 teaspoons of sand into the Nitrogen circle.
Tell them to measure out 1 teaspoon of sugar into the oxygen circle.
Now let them put one small pinch of salt into the carbondioxide circle.
Finally, let them put just a few grains of pepper into the other rare gases circle.
Remind them what each substance stands for and then tell them to mix everything together into the central circle.
Finish by spending a little time talking about the model they have made.
Can they see why it is impossible to breath in only oxygen and to breath out only carbon dioxide?



You can make self standing labels with Sugar on one side and Oxygen on the other.



Arts: Using music in the classroom

1 Exploring sound

2 Praise songs

3 Group music making

Key Question for the teacher:

What different approaches are there to making music in the classroom

Keywords: music; sounds walk; praise song; group work; community instruments; culture

Learning Outcomes for the Teacher

By the end of this section, you will have:

- used the environment and community as resources for learning
- planned practical music activities
- involved students in making their own music, using different musical cultures and forms.

Overview

Music is an important part of most people's lives and cultures. Understanding the place of music and how making music can help students' self-esteem and confidence is important.

The emphasis in this section is on exploring different sounds and working together. Throughout these activities you encourage your students to listen carefully, ask questions and experiment.

1 Exploring sound

The environment is a valuable resource for exploring sounds and how different natural materials can produce sound.

The aim of this part is to broaden your students' understanding and experience of different types of sound, and to see themselves and their immediate environment as music resources. Teaching Example 1 and Activity 1 show how sounds in everyday life are a good starting point for this topic. These activities could be extended to ask students to make their own instruments from everyday materials (tin cans, bottles and so on) or you may be fortunate enough to have students who can play an instrument or sing. Organise for them to demonstrate their skills to the class.

Begin with investigating the science of sound with students. Explore these questions with your students by making different sounds, in different ways, using the objects around you as sound makers: a desk, the floor, a pen, a bottle, chalkboard or window. Remember, talking about sound must always relate to our aural and physical experiences of sound.

- What is sound?
- What has to happen for us to hear a sound?
- How does sound travel to us?
- What makes something a musical instrument?
- Can we use our own body as a musical instrument?
- Why do you think people use instruments to make music? What purpose does it serve?
- Which musical instruments do you know about? Can you classify them into groups?
- What criteria did you use to classify your instruments?

The science connection – how sound travels

Have you ever seen a 'Mexican wave' at a big sports event? Sound travels in a similar way to the movement of a Mexican wave: the air molecules, like people in the crowd, move backwards and forwards, combining to make a wave. The individual molecules do not actually travel from one place to another: molecules vibrate, each about its own position, when something makes the molecules next to them move. These vibrating molecules then attract other molecules, so that they move out of their positions.

Sound can travel through the air or through anything made up of molecules, like water, steel or wood. Sound travels at different speeds depending on the substance it is moving through.

Teaching Example 1

In her primary class in Soweto, South Africa, Ms Simelane notices two boys tapping the desk. She listens carefully as they create a rhythmic conversation using the desk as a drum. Then they tap their pencil cases. Ms Simelane draws attention to their music, asking the class to close their eyes and listen. 'Are they making music? How?' 'What different sounds can you hear?' The students become interested in using their desks, pens and pencil cases to make sound. She lets them explore the different sounds they can make at their desks, using the objects around them. They listen to each other's sounds and comment on the ways they are made.

Activity 1

- Before the lesson, read below **Listening to sounds in everyday life.**
- Ask your students to be very quiet and listen to the sounds they can hear in the classroom.
- In groups, or with the whole class grouped around you, brainstorm all the sounds they could hear on a large piece of paper or the chalkboard. (See **Using mind maps and brainstorming to explore ideas** in the *Teaching Pack Additional Resources*.)
- Next, organise small groups of students (four/five) to go out at intervals and walk around the school grounds. They should stop in four places and listen very carefully to what they can hear. They should take pens or pencils and their books or paper or a clipboard for this.
- Each group should note down every new sound they hear and where they hear it, and try to identify what is making the sound and how it is made.
- On their return to class, ask each group to draw their own mind map of their 'sound walk'.

When these are finished, display them for all to see and discuss their ideas about how sounds are made.

Making a sound wave

Make a line of ten students next to each other, standing shoulder to shoulder. At one end, ask one student to play a loud instrument like a gong or cymbal and another to hold up a big sign saying SOUND. At the other end, ask a student to hold up a big picture of an EAR and a sign saying HEAR. The other students in the line have signs saying AIR.

The student with the gong or cymbal strikes it. The first student wiggles back and forth using their body (with the feet planted on the ground); then the next student wiggles when they feel the first student (not before!), and so on down the line. The last student holds up the HEAR sign as they feel the wiggle of the student next to them.

Listening to sounds in everyday life

This activity encourages students to pay attention to the sounds around them. You can use it as a classroom project or a 'sound search' project at home.

Sound scavenger hunt

Ask students to work in pairs to identify and record the following sounds using words, symbols or drawings. The hunt can be done at home, in the street or at school.

The aim is to use their ears, not their eyes!

Ask them to identify:

- a musical sound
- a chaotic sound
- the loudest sound they can
- a short, sharp sound
- a sound that makes them feel calm and relaxed
- a continuous sound (one that goes on and on)
- a sound with a definite pattern
- a sound which makes them want to move or dance
- a scary sound
- a tiny sound
- a sound that is very far away
- a sound that is close by
- a rhythmic sound
- a tinkly sound
- a rough sound
- a long sound
- a deep sound

Use just a few of these with your students to start with, selecting the easier ones (like a deep or long sound) and then extend the list as they understand the task. Let them make up their own descriptions for sounds and try to make the sound that matches their description.

2 Praise songs

Praise poetry and singing is an important African practice, past and present. African names carry stories of who you are and where you come from. They tell people about your experiences, your joys and struggles, and what you are like, so that others can know you. People create their own praise songs. Praise poets perform at ceremonies, rituals and festivities to praise a person or group. Praise singing and poetry has become a sophisticated art form, practised in many cultures through music, dance and chanting.

You will help students research and create their own praise poems or songs, focusing on the communication of identity and family heritage. This will enable your students to make connections between themselves and musical practices.

Teaching Example 2

Mr Ekadu is a musician and arts and culture teacher who grew up in Soroti district in eastern Uganda. He teaches in an urban primary school, where his students represent many cultures, religions and languages.

He is playing an old Iteso song on his guitar as he thinks about his music lessons for the coming month. How will he develop the theme of identity using music? As he sings, the music takes him back to his childhood, his home, parents and grandparents. He remembers hearing naming songs and praises as a child. He remembers his own naming song that tells of his birth and ancestry. His memories form the beginning of an idea for his class.

Mr Ekadu collects some praise poems and songs and devises questions about them. He listens to the songs' call-and-response structure and links this to a familiar naming game his students play in the playground. He plans to do a lesson on praise poems beginning with a familiar song. Next he encourages his class to produce and perform their own praise poems and songs about their friends.

Activity 2

- Sing a praise song you know to your class or ask a student to sing to the class. Explain to them how the structure of the song works and get them to join in the responses.
- Sing the song again while students keep the beat by clapping, tapping or using their instruments.
- Talk with them about the idea of a praise song, who sings them and why.
- Say a praise poem together, paying attention to the rhythm of the words and communicating the feeling of the poem with your voice. Add instrumental sounds that enhance the poem's mood if possible.
- Next, divide the class into groups of six. Ask each group to work in threes and write their own praise poem. Each three should perform their poem to the other three and then explain the meaning of and feelings in the poem. Together, the

whole group chooses a response line to chant in between the individual lines and they practise their two poems. They can add other sounds if they like.

Over the next few days, ask each group to perform their praise poem to the rest of the class.

Gracie – A praise song

Say this poem and ask your students to devise a response that supports the call. Choose instrumental or voice sounds that match the words: high, rooted, calls, soars, guides and moon.

Call:

Gracie
High desert dweller
Rooted in peace
Calls upon the monkey and the lion spirit
Soars with the dragonfly
Guides the pen
Moon drawn

Line 1. Gracie (My name).

Line 2. High desert dweller (I was born and raised here in Bend, which is a high desert).

Line 3. Rooted in peace (My ancestor Chief Joseph of the Nez Perce Tribe was known for his peaceful nature).

Line 4. Calls upon the monkey and the lion spirit (My totem animals are a monkey and a lion. The monkey shows my playful/childlike nature and the lion shows strength, loyalty and ferocity).

Line 5. Soars with the dragonfly (The dragonfly symbolises my imagination, love for fantasy, and also dreamland).

Line 6. Guides the pen (I love to draw and that is my passion).

Line 7. Moon drawn (At night is when I find comfort, the stars give me hope and the moon is who I can trust with my problems).

Creating a praise poem or song (student instructions)

- Start with your name.
- Refer to something about where or how you were born.
- Say something about your family heritage: where your family is from originally.
- Mention an object, animal, something in nature that is meaningful or special to you.
- Say something about yourself: what you are like, what you want, your dreams.

Create a poem of between five and eight lines. The poem is short, so each word is symbolic, i.e. each word has a lot of meaning, telling us many things.

Choose your words carefully. Use your instrument to enhance the feeling and meaning of your poem. Choose when and how you are going to make a sound. Think carefully about how you are going to use your voice expressively.

3 Group music making

Making music is a form of communication: instruments and voices 'talk', communicating feelings, thoughts and ideas. Music reflects and creates culture, and it is always dynamic – changing and developing. In Africa, music is important in creating social cohesion (unity) and can be important in the classroom.

In this part, you will build on the previous activities to organise a whole-class performance. The way you set up the activity can contribute to students' cooperative and listening skills.

Teaching Example 3

Sam's passion is making music in a group. The feeling he gets playing the ngoma, or singing in the choir is a special one of togetherness. He wants to share this feeling with his students; to experience what it's like to make music together when everyone is listening sensitively to each other.

Sam travels from Kampala to Mbale and visits a small primary school away from the city to visit the arts and culture teacher. As he arrives, he comes across a festival. Groups of young boys try out their flutes and drums in preparation. In the dusty playground, Sam listens and watches as a group of 50 children move and make music together – each one contributing, each one watching and listening as they tell the story of the dance.

Inspired by the flautists and the dance, he decides that his own students back in Kampala need to experience what it's like to 'become one' through music. After talking to the teachers and learning more about the cultural significance of the music and dance, he returns home to plan a lesson where his students make music together.

Making and playing your own pipes

Pipe ensembles are special music groups because each person plays only one note. However, put together, often in very complicated ways, this creates wonderful music.

Pipes can be made from reeds (in rural areas) or metal (in urban areas). Pipe length can vary from 20 cm to over 1 m, producing a range of high and low notes.

You can make your own pipes by using plastic piping such as electrical conduit, cutting plastic fax-paper pipes, or irrigation piping (12–15 mm diameter). Make pipes of different lengths so that you have different notes. To play the pipes:

1. Place the open side of the instrument level, against the lower lip.
2. Hold the pipe between your fingers, the index and thumb.
3. Relax your other fingers around the middle of the instrument.
4. Begin to blow softly across the hole until a note is produced.
5. Experiment with closing the bottom of the pipe with your hand.

You could also use different sized bottles and blow across the tops to produce sounds.

Activity 3

- Ask your students if any of them play an instrument. If they do, ask them to bring them to school.
- The next day, ask the students who have brought instruments to show them and play them to the class.
- Ask your students if they know any songs or praise poems. If they do, ask them tell you the words. You write these on the board.
- Ask the student to sing the poem/song and then ask the class to join in as you sing it again.
- Repeat until the class are comfortable singing.
- Now, ask those who play instruments to join in as well.

Practise the whole song until everyone is happy and then perform it to another class or at an Open Day.

Life Skills: Emotional well-being

1 Sharing

2 Self-esteem

3 Reflecting on behaviour

Key Question for the teacher:

How can you set up activities to support students' emotional well-being?

Keywords: active learning; building self-esteem; reflective practice; emotional well-being

Learning Outcomes for the Teacher

By the end of this section, you will have:

- organised different activities to develop and support emotional well-being in your classroom
- worked in a positive and affirmative manner
- reflected on your own behaviour in developing your students' emotional well-being

Overview

Learning is easier and much more fun if we feel secure and confident in ourselves. By respecting and supporting your students in the classroom and planning activities that make them feel included you will support their emotional wellbeing.

Games are practical activities that students can participate in, for fun and for learning. They can also teach students how to interact with each other to share ideas and objects. Sharing is important at school because:

- many schools have few resources, and students need to use resources in groups
- students have different skills, and sharing encourages them to help each other
- encouraging sharing and group work means that everyone is learning even if you can't speak to all of your students individually
- sharing is part of life and we all need to cooperate every day
- by sharing, people learn how to give support to others and ask for it in return
- sharing is one way people make friends with each other and it encourages good social interaction.

1 Sharing

Here, we are going to look at ideas for sharing activities and how you can encourage sharing as part of your everyday teaching.

Teaching Example 1

Kembabasi is a teacher in a Grade 4 class at a primary school in northern Uganda. She has many children in her class and very few textbooks, exercise books and pencils. So for each reading or writing activity, she organises the students into groups to share the resources together.

She plans the activities like this:

- Each group has one textbook or storybook, one exercise book and one pen.
- In the group, one student has the textbook and reads it to the others, or they take it in turns and read a bit each.
- One student has the exercise book and writes down the answers.
- The other students all discuss the questions and answers.
- They all check what has been written down.
- They swap resources after every different kind of activity.

Before the class starts a reading and writing activity, Kembabasi asks each group who is reading and who is writing. This way, she checks that each student practises their reading, writing and discussion skills every day, if possible.

The students learn how to listen to each other and share ideas. They gain knowledge from each other and learn how to be friends.

Kembabasi changes the groups regularly, so students develop new skills and make new friends.

You can find further ideas in Key Resource: Teaching in challenging environments.

Activity 1

This is a game that practises language and sharing.

- Organise your class into three groups.
- Give each person in Group 1 a piece of card with a pronoun written on it (i.e. I, you, he, she, we, they).
- Give each person in Group 2 a piece of card with a verb written on it (e.g. like/likes, go/goes, eat/eats etc.).
- Give each person in Group 3 a piece of card with a noun written on it (e.g. football, home, mango etc.).

- Tell each student that they must make a sentence by finding other students and sharing their words (e.g. 'She likes football').
- Then ask the groups to check if each other's sentences are correct.

How can you adapt this exercise to teach other topics and subjects, e.g. maths or science?

This flexible, sharing approach can be used with many different topics.

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2 Self-esteem

As a teacher, one of your most important roles is to encourage and support your students as learners and people.

An educational psychologist called Abraham Maslow has identified some emotional needs that are important in order to learn well. These include feelings of:

- safety and security
- love and belonging
- self-esteem

Every student has the desire for high achievement, which can be measured by self-esteem. Students show this in the classroom by being keen to answer questions. If they feel stupid, it damages their self-esteem and discourages them.

However, if you show them their answers might be right or are interesting, it boosts students' self-esteem and encourages participation and high achievement.

You can encourage this in the classroom by being a positive and affirmative teacher. This means:

- being positive and respectful so students feel confident enough to contribute
- making sure that nobody is made to feel stupid or embarrassed when contributing their ideas
- making sure that everybody understands the lesson's most important focus

To do this, you need to develop teaching strategies that do not reject any answer that is given, but you use the students' responses to guide them to think more deeply. By doing this, you will be building students' self-esteem.

Teaching Example 2

William had been able to encourage students in his Grade 5 class to contribute to most lessons through the sharing activities he uses as part of his everyday lessons. The students began by making contributions in small groups, and soon were confident enough to start making contributions in front of the whole class.

To make sure he didn't damage the students' self-esteem, he planned how he would handle their contributions.

- He would ask the class a question. If students wanted to answer, they put their hands up and he would choose someone.
- If they gave the correct answer straight away, he would praise them with phrases like: 'Well done!', 'Very good!', 'Excellent!'
- If the student gave an answer that wasn't quite right, he was careful not to say 'No' or 'Wrong'. Instead, he would say something neutral like: 'Almost', 'Nearly', or 'Not quite'. He might ask the student to 'Try again' and give them a clue or prompt to help them think a little harder.
- If the student was stuck, William moved on quickly, saying: 'Can anyone else help us?'

Over time he noticed how much more confident they became.

Activity 2

One way to build self-esteem is to help your students recognise their own skills.

- Ask your students to describe different kinds of things they enjoy doing, both at home and in school.
- Now ask them to think about which activities they are particularly good at.
- Organise them into groups. Then ask each student to identify three special skills they have and share these with the group.
- Ask them individually to write about these skills and draw pictures of themselves doing each activity. Display them on the wall.

In the next lesson, extend this by asking your students to discuss what they would like to be or do when they grow up.

3 Reflecting on behaviour

We have talked about how to help students identify and explain their feelings. As emotions are strong reflections of who we are as individuals, they can also make us react in ways that we can't always control.

Our feelings and behaviour are linked to two things:

- the particular situations we are in
- our emotional reactions to situations, and our understanding of what is the socially acceptable way to show our feelings

For example, one of your students might be over-excited. Your immediate reaction may be to feel annoyed. But to show this might spoil the good classroom atmosphere. So, to diffuse the situation, you ask her to sit down quietly, or give her a task like giving out books to distract her.

Younger students take time to fully understand their emotions and the social rules that say how we should behave. When young, we often experience emotional situations for the first time and don't know how to react. As we grow older, we learn to understand our emotions better, and to control how we react in different situations.

Here, we are going to look at ways you can encourage this in your classroom

Teaching Example 3

Mrs Kwei started to work with her Grade 2 students to help them understand more about their feelings and behaviour – what made them happy, sad, angry and frightened.

After this, she planned work with her students to develop a list of things they could all do to make each other happy and not sad, angry or frightened.

Using group and whole class discussions, they made a chart of rules for interacting with each other at school. They included things like: 'We will all say good morning to each other every day' and 'We will not call each other bad names'. They linked each rule with a feeling by drawing a happy or sad face next to it.

With this chart, every time there was some problem of behaviour in the class, Mrs Kwei could refer to the rules of behaviour. She always linked the behaviour with the different feelings it produced.

This way, her students could see the link between their behaviour and people's feelings. They became more caring of each other as a result.

Activity 3

In this activity, you are asked to think about your own behaviour and plan how to make it more affirmative and supportive in the classroom.

Reflecting on your behaviour

Using the questions below, think about your own behaviour as a teacher. Be honest in your answers. Are there examples from your classroom activities that support your ideas?

- Are you a positive or a negative teacher in the way you treat your students? How could you be more positive?
- Do you try to encourage them or discourage them? How? How can you encourage them more?
- Do you make them happy when they are learning? How?
- Do you ever make them sad, angry or scared? How?
- What aspect of your teaching behaviour do you want to change? How can you do this?
- What aspect of your students' social behaviour would you like to change? How could you help them achieve this?

- First, ask yourself the questions listed in the box above.
- Write down your answers.
- Look at the case studies we have featured in this section. Choose one piece of good practice from each, which you can apply to your own teaching situation.
- Write a description of how you will apply it in your own classroom.
- Finally, write a plan for 'affirmative action'. Write five sentences stating what positive behaviour you will use each day; e.g. 'I will say good morning to all my students when I see them in the playground'.
- Extend this to your interaction with colleagues. Perhaps talk to them about your ideas and plan to do these actions together.

Read below to see the approach one teacher took in her

Mrs Chosane's reflections on her approach

Mrs Chosane was on an in-service course on developing positive self-esteem in her classroom with teachers from the local district. As part of the course, they had been asked to keep a diary for two days in the next week and record as often as was possible all the times they praised their students and times when they told them off or ignored their behaviour.

They used a chart like that in the table below and put a tick in for each time they did one of these things. Sometimes it was not possible to fill it in during the lesson as it was so busy, but Mrs Chosane kept the chart in the book of her lesson plans so she could do it when she had a moment, or as soon as the lesson finished.

	Lesson	Praise 1 student	Praise several students	Ignored 1 student	Ignored several students	Told off 1 student	Told off several students
Day 1	**Maths**	x	x				
	English		x				
	Science			x		x	x
	Social Studies					x	
	Art	x					x
	Physical Education		x	x			

Day 2	**Maths**		x				
	English	x					x
	Science					x	x
	Social Studies		x				
	Art			x		x	
	Physical Education		x				

When they went to the next course session, they were asked to examine the data and identify which they did most. Did they do more telling off in classes? If so, could they think why?

Through group discussion, the tutor, Mrs Mbatha, asked them to think what they could do to increase the positive atmosphere in their classes. Each group had to list six things they could do to develop the positive classroom atmosphere.

Mrs Chosane saw from her data that she was more negative with her students in science lessons than in other lessons, and wondered why. Maybe it was because she felt less confident of her own knowledge and had not liked science herself. She often felt less organised and more nervous in case the students asked her questions.

She made a list of things she could do to help her class and her own interaction with her students:

1. Have well-prepared lessons.
2. Check my own subject knowledge.
3. Think about what questions to ask the students and what answers to expect.
4. Think of ways to accept their answers, for example:
   a) 'That's an interesting idea, but can you think a little more about…' and then ask the first question again in a different way.
   b) 'I hadn't thought of that idea – how could we link it to my first question?'

   With each of these, the student is encouraged to think more and participate more and is not told that they are stupid or wrong.
5. Give my students the chance to raise their own questions about a topic if they don't understand. Allow other students to give answers to these rather than just me.

Gradually, over the next few weeks, she became more confident and found that because she was better prepared, she didn't get as anxious and therefore she shouted less. Her students began to enjoy their science lessons more and more.

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