

SENIOR PHASE TEACHER'S BOOK

ACKNOWLEDGEMENTS

Contents

Page No

What is Go, Water Detectives!?	1
What will you do as a teacher?	1
Assessment	1
Links to the Water and Environment Clubs book and other resources	2
Motivating your learners through the comic story	2
Before you read	2
Reading and understanding the comic	2
Taking learners through the action project steps	2
Use the comic to introduce action project work (LB page 9)	3
Introduce the action project steps (LB pages 10 –11)	3
Keeping up your actions (LB page 12)	6
Guide learners to do their own action projects (LB page 13)	7
Supporting action projects on water conservation	7
Why is water such a valuable resource? (LB page 13)	7
Water management at school (LB page 14)	7
Rainwater harvesting and management (LB page 14)	8
Investigate water issues at your school (LB page 15)	8
Take action to conserve water (LB page 16)	8
Supporting action projects on maintaining toilets	9
Sanitation and disease (LB page 17)	9
The right to acceptable sanitation (LB page 18)	10
Compare different sanitation systems (LB page 18)	10
Investigate sanitation at your school (LB page 20)	11
Investigate health and sanitation needs and rights (LB page 21)	11
Take action on sanitation (LB page 22)	11
A water and sanitation policy for your school (LB page 24)	11
Rubric for assessment of action projects	12

ICONS:



Whole class



Small group



Pair work



Individual work

What is *Go, Water Detectives!*?

Go, Water Detectives! is a learner-centred 'action project' unit for Life Orientation in the Senior Phase. The comic and activities in the Learner's Book will enable learners to set up and participate in action projects to solve water and sanitation problems at their schools. The idea behind action projects is that learners can work together to facilitate important changes in their own environment, both at school and at home.

The activities in the unit are geared mainly toward meeting Life Orientation Learning Outcomes 1 (Health Promotion and 2 (Social Development)). However, the advantage of doing action project work is that it addresses all the Critical Outcomes and develops real-life skills and knowledge in other learning areas too. Life Orientation assessment standards that are addressed in this book are:

- LO1:
- AS2 (Gr 7): Evaluates actions to address an environmental health problem.
 - AS4 (Gr 7): Discusses the personal feelings, community norms, values and social pressures associated with sexuality.
 - AS1 (Gr 8): Plans an action in which laws and/or policies for protecting environmental health are applied to address an environmental health issue.
 - AS2 (Gr 8): Critically analyses the causes of common diseases in relation to socio-economic and environmental factors.
 - AS5 (Gr 8): Examines a health and safety issue related to violence, and proposes alternatives to violence as well as counter-strategies.
 - AS2 (Gr 9): Develops and implements an environmental health programme.
 - AS5 (Gr 9): Discusses ways to apply insights gained from participating in an activity related to national health.
 - AS6 (Gr 9): Critically evaluates resources on health information.
- LO2:
- AS3 (Gr 7): Discusses the significance of volunteer organisations.
 - AS1 (Gr 8): Discusses violations of human rights and plans counter-strategies.
 - AS1 (Gr 9): Debates issues with regard to citizens' rights and personal choices.

What will you do as a teacher?

This Teacher's Book will help you to:

- organise your class for the activities
- use the entertaining comic story to involve learners in water and sanitation issues
- identify relevant learning outcomes and assessment standards
- introduce learners to a problem-solving action project process
- facilitate their learning about water and sanitation issues
- support them as they develop, implement and evaluate their own projects
- set activities and assessment at the appropriate Senior Phase grade level
- conduct and complete a portfolio assessment process and
- use a range of resources to help learners develop and sustain their actions.

Assessment

Portfolio assessment is appropriate for action project work and various identified tasks will contribute to learners' portfolios. Do informal assessment by observing learners as they progress through problem-solving steps towards the main targeted learning outcome and assessment standards at their level. There is an assessment grid for formal assessment of the project report.

Links to the Water and Environment Clubs book and other resources

More material is available in the project pack to support projects on water and sanitation and other environmental issues. Use the Teacher's Book on starting and running water and environment clubs to help learners sustain and develop their action projects.

Motivating your learners through the comic story

Read the comic with learners before you start the action project activities. It will engage your learners with the relevant issues in school and community, and inspire them to investigate these problems and take action to solve them. By involving the Language teacher, you can integrate and reinforce learners' skills and awareness through the comic.

Duration: approximately 1 hour (use homework time if necessary)

Resources: *Go, Water Detectives!* comic

Before you read

- Ask learners what comics they already know and enjoy. Get them to tell you and the class a bit about the characters and stories they like.
- Ask them to look at the title and picture on the cover and tell you what they think the story is about, who the characters are and what they are like. Introduce the characters (page 1); ask the learners to read about them and note different facial characteristics to look out for when they read the comic.
- Ask them to point out the different features of comics, for instance:
 - frames (the boxes containing separate pictures/scenes)
 - text-boxes (strips at the top of frames or between them, which help to tell the story)
 - speech bubbles (for speaking, shouting, whispering and thinking).
- Refer learners to the word list on page 25.

Reading and understanding the comic

Consider carefully how to read the comic with learners' full participation. For example:

- Dramatise the reading by giving parts to various learners. Someone will need to read the text-boxes too.
- Stop the reading at particular points (e.g. after the Linda gang has made the illegal connection; after Senzo has made the 'water-slide'; or when Linda bullies Nosipho) and ask learners to:
 - evaluate the rights and wrongs of particular actions in the story
 - suggest what a character meant in their statement, or debate it
 - predict what will happen next
 - relate the events in the story to their own experiences.
- If another learning area such as Language is involved, this is a good time to discuss the characters, organise a dramatisation of the comic or get learners to write their own comics.
- However, in the Life Orientation class use the comic to introduce action project work they will be doing in the next section.

Taking learners through the action project steps

This section focuses on Section 1 of the LB (pages 9–12). After working through it, learners should be able to follow action project steps to solve water and sanitation problems at school.

Duration: approximately one hour (use homework time if necessary)

Resources: *Go, Water Detectives!* comic; Learner's Book Activities 1.1–1.5 (pages 9–12); school water and toilet audit forms in Learner's Book pages 15 and 20; two large A2/A3 sheets of paper/card per group; old magazines; scissors and crayons.

Use the comic to introduce action project work

(20 minutes)



ACTIVITY 1.1

- Encourage learners to relate and compare issues and events in the comic to their own school situation. Scenes in the comic that might highlight the importance of taking action on these issues could be: pictures of toilets and taps in bad/good condition, left running, etc; pictures of Linda bullying Nosipho near the toilet; Senzo's group fighting the Linda gang; pictures of the illegal connection; and so on.
- Encourage the learners' ideas and experiences rather than 'correct answers'. For example, elicit information about illnesses that learners, their families or community members might have experienced as a result of water or sanitation problems.



ACTIVITY 1.2

This activity deals with attitudes and behaviour that could stand in the way of learners doing action projects: that is, apathy amongst the majority and bullying, which lowers morale and motivation to change and improve things. Possible answers for b) and c):

- b) Senzo shows respect to all and takes responsibility for valuing and caring for the school's resources. As a leader at school he can influence others to adopt this attitude because he is straightforward, respectful and prepared to work hard himself. This approach contrasts with Linda's attitude. Linda seeks to control others and abuses resources for his own advantage. It also contrasts with the attitude of other learners, most of whom don't take responsibility for resources at school.
- c) In the comic, Linda and his gang bully Nosipho. They also try to bully Zethu and Vusi, and Linda sexually harasses Zethu (a form of bullying). Bullies are a threat to positive action because they make others feel they have no control over what happens. Bullies like Linda often abuse facilities, making it difficult for others to have access to water, acceptable sanitation, etc. For example, 'toilet bullies' make learners too scared to use the school toilets at many schools. Schools/learners can try to: make it safe to report bullying; reward caring, supportive behaviour; stop watching bullying at break; distract bullies; organise playground monitors; form clubs like Water Detectives which build positive cultures at school, etc.

Special note: Learners may encounter opposition from bullies or apathetic learners throughout their action project work. You should be ready to counsel and support them.

Introduce the action project steps

Tell learners that they are going to run their own action projects at school. Like Water Detectives, they will follow a careful problem-solving method to ensure lasting results. Write the six steps on the board:

Step 1: Describe how things are and identify problems

Step 2: Choose a problem and find out about it

Step 3: Create a vision of how you would like things to be

Step 4: Plan an action(s) to solve the problem

Step 5: Take action

Step 6: Evaluate whether you have made a difference or not

STEP 1: Describe how things are and identify problems (1 hour plus homework)

- Discuss activities learners can use at this step and encourage questions:
 - **Mapping:** Ask why it is useful to map out the toilets and water sources and how to represent toilets, taps, etc. on the map. (Maps can show how far facilities are from each other, which routes learners take, where the unsafe places are, and thus assist planning.) Give each group a large sheet of paper and let them spend 5–10 minutes starting to draft their maps.
 - **Audits:** Explain that an audit is a detailed examination of something, in this case the water and sanitation situation at school. Refer learners to the two audit questionnaires on pages 15 and 20 of the LB. Give groups 10–15 minutes to examine each of the sheets and alter it to suit the types of sanitation or water source you have at your school.
 - **Observation:** Explain that watching how people use facilities is part of doing an audit. Refer them to the questions that deal with behaviour and ask them to add further questions, e.g. as well as observing if learners use the toilets only or use other places as well, they could also observe whether they go to the toilets alone or in groups, what other things happen near the toilets, etc.
- Take learners on a walkabout around the school for a lesson period so that they can work on their maps, questionnaires and observations. Encourage them to make further changes to their questionnaires if they need to. Tell them that their observations of learners using the toilets and taps must be completed during breaks before your next lesson.
- Make learners aware from Step 1 that they will be required to write individual project reports, which will form the final task in their portfolios and will be formally assessed. Show them the rubric you will use to assess their work (see page 13).

Assessment: Maps, completed questionnaires and any observation notes should be placed in the group portfolio.

STEP 2: Choose a problem and find out more about it

- Explain that when they have completed their audits each group must choose a specific problem to tackle. Give them 5–10 minutes to decide on their focus. Ask them to write out their topics and hand them in so that you can advise those who need to adjust their focus a bit. If more than one group are tackling the same problem you could ask them to tackle different aspects and/or try different actions to solve the problem.
- Explain that unless we come to understand the problem better we don't know how to solve it. Emphasise that we investigate in two ways:
 - **informing yourself:** getting more expert knowledge about things like: why water is valuable; climate change; rainwater harvesting; different kinds of sanitation systems; etc.
 - **investigating the causes and results of the problem at school:** this might involve interviewing people, observing people and things as they are at school (they may need to review or repeat parts of their audit).

- Select an **inform yourself** activity and an **investigate** activity from Sections 2 or 3 of the Learner's Book to familiarise learners with these two ways of **finding out**. For example: let groups read the passage about water (LB page 13) and do the ruler measurement task for Activity 2.1. Then find the water meter at your school and take a reading for that day with the class (LB page 16). Select activities that are relevant for the water or sanitation situation at your own school, if possible.



ACTIVITY 1.3

- This activity will help learners to conduct interviews efficiently and plan their action projects. Allow 5 minutes group discussion followed by 5 minutes of class discussion.
- Answer: Bernice asks the girls about their own behaviour, which might not get a true response because they are embarrassed. Also, she asks a question which could get a simple yes/no answer rather than asking an open question like: *Why do you think so many girls miss school when they have their period?* This could elicit much more information.
- You could now work through the Learner's Book Sections 2 and 3 to get ideas on how and what to investigate at Step 2. You may wish to select and allocate activities according to the problems the action groups have chosen.
- At this stage, focus mainly on the Inform yourself and Investigate at school activities for Step 2 of the action projects, not the Take action tasks at the end of these sections, which can be completed when the project groups reach Step 4. See pages 8 to 9 of this book for ideas on facilitating Sections 2 and 3 of the Learner's Book.
- Ask each group to hand in a short description of the methods they plan to use to investigate their problem. Help them to master the record-keeping and note-taking skills they need for their chosen projects.
- Give the groups a time-frame for completing their investigations. They will need one or two days for interviewing or observing during break. Allow class time for practising interviews and writing up the findings.

Assessment: All questionnaires, interview notes, etc. should be added to the group project portfolio. Note that Step 6 needs to be prepared for by the end of Step 2. That is, groups must record the situation before action has been taken: e.g. water meter readings, descriptions of facilities, statistics on numbers of learners who wash their hands / waste water at break, etc.

STEP 3: Create a vision of how you would like things to be

For this step hand out large sheets of blank paper per group, crayons, glue, old magazines, household/gardening supplements, etc. Ask learners to imagine the school as it will be when the problem is solved and things are as they would like them to be. They can use the resources to create a picture of this. Stick the completed pictures on the classroom wall to inspire everyone.

STEP 4: Plan an action(s) to solve the problem

- Discuss the action ideas listed on page 1 of the LB so that learners are aware of a range of possible actions. After this you could focus on ideas in Sections 2 and 3 of the LB, depending on the problems your learner groups are tackling. Ask your learners:
 - which actions they feel are most likely to make a lasting difference
 - which actions would be easier to implement in your school
 - which actions might need more support, and how they might get this (think about useful people and resources in the school community).
- Direct groups to discuss and settle for a final list of actions they can manage as a group within the overall time-frame you decide on. One challenging action with different responsibilities for each group member might be enough.

- Ask groups to draw up a table like the one in their books that will help project groups to organise their actions and ensure that things go as planned throughout the project. Groups can adapt the format according to their needs and draw up and sign the final version. They should fill in the actions they have decided on. Advise them on how to divide responsibilities.

Assessment: Action tables should be handed in.

Step 5: Take action

Informal assessment: During this step, you should monitor how each group is progressing. You need to refer to the action tables so that you can check whether individuals are meeting the responsibilities they have undertaken. Try to keep the groups aware of the time-frames.

STEP 6: Evaluate whether you have made a difference or not

- How learners do this depends on what kinds of action they have taken. Some ideas:

Action targets	What needs to be done before and after action
Water wastage	Take regular meter readings and check water bills
Abuse of toilets or water facilities	Observe what people do and take notes (use the same questionnaire). Check for changes
Poor condition of toilets and water sources	Inspect/audit the facilities using the same questions
Attitudes or concerns of learners	Interview learners using the same questions
Alien plant presence or need for (indigenous) plant cover	Record regularly: number of aliens in target area or indigenous trees planted and/or still growing there
Litter (recycling action)	Weigh paper, tins and glass regularly; record this and record amount of money earned.

- Remind learners that this step will help them to work out what still needs to be done or what should be done differently. The aim is to solve problems and make a difference. If they find that actions are having little or no effect, they can find out why by doing more observations, and/or talking to people (learners, teaching or administrative staff, health officers, municipal staff, department of education officials, etc.).
- Help learners present their findings: for example, they may need help with preparing graphs, tables, diagrams, etc.

Assessment: Groups should place all records and findings in their project portfolios.

Keeping up your actions



ACTIVITY 1.4

- All the strategies are likely to be effective in different ways. For example:
 - monitoring facilities and behaviour enables detailed and timely feedback
 - passing on achievement records/reports shows others what is possible and sets a standard from learners themselves and
 - staging dramas can entertain and draw in new 'converts'.
- However all these efforts require disciplined effort and some, such as monitoring and report-writing, can lose their appeal easily if there is no club or other ongoing structure to keep things going (especially once the first grades involved have moved on).
- Steps 2 and 6 help learners to look at the underlying causes of problems, so that they can focus or adapt their actions more effectively. Ask learners why many 'clean-up' operations at schools don't make a difference in the long-term.
- This activity provides a good opportunity to share ideas from the Water Club book. You may need to get learners' ideas and give advice about how to form a learners' club. For example, they should involve the RCL.

Guide learners to do their own action projects



ACTIVITY 1.5

When the learners have done their oral reports they should write their individual project reports, which will form the final task in their portfolios and will be formally assessed. If you feel it is necessary, take in draft notes for their oral reports so you can help them improve on the final version.

Assessment: Use or adapt the rubric on page 13 of this book to assess the learner's reports.

Supporting action projects on water conservation

This advice will help you implement activities in Section 2 of the Learner's Book. You can use it to inform your learners about water issues and/or to support learners undertaking Steps 1, 2 and 4 of action projects on water. After working through this section, learners should be able to:

- follow action project steps to solve water and sanitation problems at your school
- explain why water is a valuable resource
- monitor water consumption and use of the water sources at school.

Duration: Time estimates are given per activity where possible. Most investigation activities will take place during breaks or after school. Identify the activities your class will need and allocate class and break or homework time accordingly.

Resources: *Go, Water Detectives!* comic; Learner's Book Section 2: pages 13 to 16

Why is water such a valuable resource?

(30 minutes plus homework time)

Read the passage to learners or ask them to read it in their groups. Encourage questions from learners and discuss them with the class.



ACTIVITY 2.1

- Ask the whole class to measure. Talk about whether this is a lot of rain or not.
- Point out that information like that in the passage they have just read comes from articles in scientific journals and books, but useful environmental knowledge can also be collected by talking to people. Collecting this kind of information at Step 2 is highly relevant to projects focused on saving water, particularly if learners also focus on saving water at home.
- Encourage learners to give their ideas. Possible answers: many people could starve; people will move away from drier areas towards the east coast areas; there will be heavy pressure on water and food resources in the wetter parts of the country, etc.

Water management at school (20 minutes)



ACTIVITY 2.2

- **Answers:**

Pic 1: Water security has been threatened by the illegal connection. Loss of a proper water supply and serious financial loss to the school could occur.

Pic 2: Water consumption becomes far too high if taps are left on. Again, financial loss will

occur and, eventually, water security is also threatened if the supply is limited.

Pic 3: There is poor rainwater harvesting at the school (the supply in the tank does not seem to be monitored) and also a loss of water security with the broken lock. The result is loss of a reserve water supply when the piped water fails.

Pic 4: There is poor water damage control. The bank could get more and more eroded by storm water and the muddy, slippery bank is dangerous for learners.

- Elicit from learners whether there are similar problems at your school. Ask them why they think this happens.

Rainwater harvesting and management



ACTIVITY 2.3

- You could assign each of the four topics in the table to different groups in the class. Ask each group to prepare to report to the rest of the class on:
 - why this issue is very important generally and in your school area
 - what is (or is not) being done about this at school at present and what could be done.
- This could help to interest some groups in taking these topics as projects. See the Water Clubs book for information on alien plant attack (page 7). Make sure that learners know what indigenous plants are (plants that grow naturally in a country or area) and what the worst invader plants are locally. (In KwaZulu-Natal, the most serious threats are from Lantana, Chromolaena and Black Wattle, all three of which drain our ground-water resources significantly.)

Investigate water issues at your school



ACTIVITY 2.4

- **School water audit:** Learners can adapt this questionnaire as they see fit to suit the water facilities at your school.



ACTIVITY 2.5

- **Measure and monitor how much you use:** If your school has to collect water from a pump or stand-pipe, the learners will need to find out exactly how much water the container used for fetching water holds in order to find out how much is collected in a day.
- **Examine the school water bill:** Obtain a bill from your school management team or governing body. Remember, if the meter is read only every three months you should wait until the next reading to check whether reduced consumption is starting to show on the bill.
- **For the task in which learners try to break down their own water use:** Note that approximate amounts of water per operation are: 2 litres to wash hands, 6 litres to flush the toilet, 250 ml per drink of water. You could also ask learners: *How could you find out how much is lost through faulty or illegal pipes and connections underground?* If you work out a fairly reliable figure for individual daily water consumption and multiply that by the number of people at school, you can compare this with the consumption on your meter and water bill. A very large difference between the two could mean an underground leak or illegal connection.
- **You could try an interview activity in addition to the various investigation tasks already described in this section of the Learner's Book:** Learners could interview other learners about why people leave the tap on and/or drink with their hands rather than a cup and/or ignore the overflowing bucket/basin under the tap, etc.

Take action to conserve water



ACTIVITY 2.6

Be prepared to assist learners with identifying and supporting possible actions. For example:

- Make suggestions for dramas: e.g. learners could dramatise the comic.
- Suggest that learners make up songs featuring water-saving strategies, using familiar tunes.
- Show learners posters to demonstrate features of a successful poster: clear, large lettering; pictures with a clear message; as little text as possible; plenty of clear space; messages that are easy to remember. Ask learners where they think posters should be positioned.
- Help learners access people who might give interesting, persuasive talks: e.g. municipal officials, NGOs, etc.
- Elicit strategies for water-monitors from learners. For example: How could they deal with bullies at the taps? To what extent should they intervene in learners' behaviour and how can they do so without causing offence?

Special note: The strategies for saving water are not full action project actions. They are strategies which need to be **promoted** to other learners through actions such as dramas, talks, poster campaigns, tap monitoring, etc.

Supporting action projects on maintaining toilets

This advice will help you implement activities in Section 3 of the Learner's Book. You can use it to inform all your learners about sanitation issues and/or to support learners undertaking Steps 1, 2 and 4 of action projects focused on sanitation. After working through this section, learners should be able to:

- follow action project steps to solve water and sanitation problems at your school
- explain what causes waterborne and other diarrhoeal diseases
- take practical steps to prevent diarrhoeal disease
- describe and evaluate different sanitation systems
- investigate your school sanitation system and the maintenance thereof
- identify health and sanitation needs and rights of girls and disabled learners.

Duration: Time estimates are given per activity where possible. Most investigation activities will take place in break times or after school. Identify the activities your class will need and allocate class and break or homework time accordingly.

Resources: *Go, Water Detectives!* comic; Learner's Book Section 3: pages 17 to 23; Poster of different sanitation systems.

Sanitation and disease



ACTIVITY 3.1 30 minutes

- Read the stories of Lihle and Sibongile to learners. Ask them about experiences they have had or heard about that are similar.
- Assign each of the four questions to a different group and allow discussion for 10 minutes. Facilitate a report-back (10–15 minutes).

Answers:

- a) Cholera germs from faeces spread in water and from hands to mouths. Sibongile's family boils drinking water to kill germs, whereas Lihle's family drink water from the river near which

people defecate. Sibongile's family wash their hands after using the toilet, so germs on their hands are washed off before they can be transferred to their mouths, e.g. during eating.

- b) Sibongile's toilet is well-sealed and fly-proofed, whereas Lihle's toilet is just a hole from which faeces can easily seep or rise to the outside in rainy weather.
- c) The symptoms of Sibongile's brother Joseph show how serious diarrhoeal diseases can be. He is clearly dehydrated; i.e. through the diarrhoea and vomiting and sweating he has lost a lot of essential water and mineral salts. Dehydration can rapidly lead to death, especially in babies and small children.
- d) If people with cholera defecate in the bush near the river, their faeces get washed into the river in rainy weather. So disease germs from the faeces are constantly getting into the river water. People who drink the polluted water get infected or re-infected. Similarly, faeces with germs can seep out of badly sealed pit toilets or septic tanks and pollute ground or river water. If this situation is allowed to continue, people keep getting sick.
- Discuss the fact that flies that sit on exposed faeces in the bush or in badly constructed or poorly maintained toilets, can carry disease germs from the faeces to uncovered food that they later settle on. If people don't stop defecating in the bush or leaving food uncovered, the pattern keeps being repeated. Thus poor hygiene practices, inadequate sanitation and polluted water can all contribute to the cycle of diarrhoeal disease.

The right to acceptable sanitation



ACTIVITY 3.2

- Read the short passage to the class. You could tell the learners that the information is taken from the government's White Paper on Basic Household Sanitation (2001), which includes a section on sanitation in schools.
- The groups discuss questions a–d for 5–10 minutes. Take a report back.

Possible answers:

- a) Learners give their own ideas.
- b) The toilet is:
 - unhygienic: the pools of polluted water leaking from the blocked bowl could be carrying germs of waterborne diseases like cholera; flies (also disease carriers) are buzzing around
 - unsafe: i.e. a disease risk and also the wet floor is probably slippery
 - smelly and disgusting to use, and it also lacks a door so privacy and dignity are threatened
 - not easily accessible as it is situated down a slippery bank
 - impacts negatively on the environment as a pollutant.
- c) Learners have a right to a working toilet with a structure that is intact, but this is balanced by their responsibility to help keep it clean and ensure that it is maintained in working order.

Compare different sanitation systems



ACTIVITY 3.3

- For this activity, use the poster of different sanitation systems in your pack so that learners can see what the different systems look like.
- Ask the learners to read the notes about the different sanitation systems carefully before answering the questions. Answers:
 - b) **Cost:** the waterborne system is the most expensive to maintain because of the underground system; the VIP is the cheapest.
 - Water:** both flush systems use a lot of water; the VIP uses none.

Disposal: all the systems dispose of faeces fully and safely if they are in full working order. (The VIP should have a lid over the hole/seat; the door should be kept closed, and the ventilation pipe must have a fly-screen).

Smell: The flush systems deal with smells best (when in working order), but the VIP's ventilation pipe should also control smells well.

Leakages: Proper construction underground prevents seepage: pipes must be intact for the waterborne system and the latrine pit and septic tank must be well sealed.

c) **Above the ground:** clean, sound structure with working door that locks; seat/bowl with lid; good ventilation; no blockage to disposal; accessible entry (path, etc.).

Under the ground: disposal system working and unblocked; sealed pipes/ tanks/ pits.

d) Toilet paper is the only item that can go into the pit. The other items prevent bacteria from working to break down waste, and also quickly fill up the pit.

Investigate sanitation at your school



ACTIVITY 3.4

Learners can adapt the school sanitation audit questionnaire to suit the sanitation facilities at your school. Make a photocopy for each group.

Investigate health and sanitation needs and rights



ACTIVITY 3.5

Let learners work in same-sex pairs on designing the questions and the interview process. Elicit their ideas about how to deal with these issues delicately. You could allocate the interview process on physical disabilities mainly to the boys and the focus on girls' needs to the girls. Remind the learners what they learnt about interviewing techniques in Activity 1.3.

Take action on sanitation



ACTIVITY 3.6

- **Cleaning/maintenance responsibilities:** Ensure that the class reaches a fair and responsible consensus view on the relative responsibilities of learners and cleaners, boys and girls, for keeping the toilets clean. This can then be written down and submitted to the school management team as a contribution towards the school sanitation policy.
- **Promote handwashing!** Note that although both the messages for the task are based on research, and both have been used in Water Week, the left-hand message has a positive thrust and the right-hand message uses fear as motivation. Recent research seems to show that negative messages are less effective than positive ones.



ACTIVITY 3.7

- **Sanitation issues beyond the school:** Action project work is aimed at developing good citizens, so it is important that learners' developing skills and abilities are applied at home and in the community. Encourage learners to give their own ideas about strategies Senzo could try. The third option offered is a positive one, but they may have a better idea.
- **What to do when problems are too big to deal with:** Discuss what should be done when learners have done what they can, but water and sanitation problems at school are beyond a level where they can take them on and solve them (for example, when there are structural problems such as collapsing toilet pits and serious blockages, or extreme violence at school). Accept their ideas, and make them aware of the channels they can use. They can, for example, write letters to the Department of Education Physical Planning Division.

A water and sanitation policy for your school

After working through this section, learners should be able to help draw up a water and sanitation policy for your school.

Duration: 30 minutes

Resources: Learner's Book: Activity 4.1 on page 24



ACTIVITY 4.1

- Do this activity once learners are fully involved in their action project work or have completed it.
- Ensure that they understand that a policy is a set of ideas, guidelines and intentions on which we base all our activities in a particular area of life. We make policies to state what we believe to be important and what we believe our actions should focus on. Suggest that their experience of carefully studying the water and sanitation problems and needs at their school has equipped them well for suggesting policy directions (5 minutes).
- Discuss the information about Dabulamanzi School and their policy in the LB. Ask them to indicate how the policy goals are linked to issues at the school that came out in the comic story. Write up the links they give on the board (5 minutes)
- Then ask groups to draft a policy for your school that reflects their sense of the priority issues there. Give them 20 minutes to do this. Groups should hand their policy drafts in to you and you should compile these into a representative draft policy that is submitted to school management by the class.

ASPECTS THE POLICY MIGHT INCLUDE:

- keeping water consumption and costs as low as possible
- keeping the water sources (pipes, taps, tanks, etc.) and sanitation system in good order and protecting them from vandalism or abuse
- balancing and integrating the different water needs you may have
- making sure that your sanitation system is “safe, hygienic, acceptable and accessible to all”
- promoting health and hygiene awareness and behaviour at school.

Rubric for assessment of action projects

Criteria	1 Not Achieved 0–29%	2 Elementary 30–39%	3 Moderate 40–49%	4 Adequate 50–59%	5 Substantial 60–69%	6 Meritorious 70–79%	7 Outstanding 80–100%
Grasp of problem-solving steps	no clear evidence of problem-solving steps	some reference to problem-solving steps	most steps in process were reflected	learner followed steps to solve problem	clear and logical sequence of problem-solving steps	very well focused problem-solving steps	exceptionally well developed problem-solving process
Relevance of project to school situation	actual school situation not reflected in report	a few signs of actual issues at school in report	report broadly reflects some relevant issues at school	report relates generally to actual issues at school	report focuses on relevant issues at school	relates strongly to actual school issues	report sensitively reflects actual issues at school
Quality of self-evaluation	no apparent attempt to evaluate project	a misdirected attempt at evaluation	partly attempts to evaluate success of project	report evaluates success of project	report evaluates project and proposes further action	clear and honest evaluation and proposed follow-up	evaluates with insight and focused follow-up proposals

