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**WATER IS
LIFE**

Water is life



1. Phases of Water

ACTIVITY

At the end of this activity you will be able to:

- Explore the properties of water.
- Make models of water molecules.
- Investigate the importance of water.

BACKGROUND INFORMATION

Water is an important substance or resource on Earth. Therefore without water there is no life, thus water is life.

For this activity you will need:

- Ice cubes
- Liquid water
- Kettle
- Saucer
- Stove / hotplate

ACTIVITY 1A: Properties of water

Your teacher will give you some glasses.

1. Pour water into the container and investigate the following:
 - a) How does it taste?
 - b) How does it smell?
 - c) What is the colour of water?

ACTIVITY 1B

PHASES OF WATER

In this activity you will demonstrate how water changes from one state to the other.

What to do:

- Pour some water into a glass. What shape is the water in the glass?

- Now pour the same water into a plastic lunch box. What is the shape of the water now?

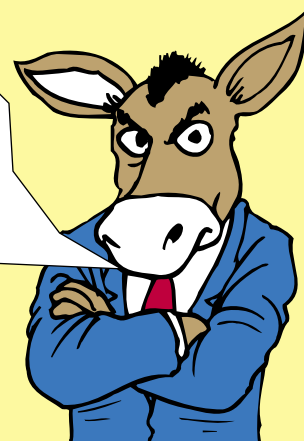
- Put a block of ice into the glass. What shape is the ice?

- Put a block of ice cube in a plastic lunch box. What shape is the ice?

-
- Leave the ice to stand for a while in the box. What happens?
-
- Boil some water in a kettle or hotplate. What happens when you boil water for a long time? Where does the water go?
-
- Hold a cold spoon or saucer near the spout of the kettle or over the saucepan. What happens and why?
-



TAKE CARE! Steam from boiling water can burn you. Be very careful; use a cloth over your hand and wrist when you put them near steam.



ASSESSMENT

IN YOUR CLASS WORKBOOKS - FILL IN THE TABLE

State or form	Can you see it?	Does it stay the same shape?	What does it feel like?	Can it flow by itself?
Liquid water				
Ice				
Water vapour				

Choose the words from the box to fill in the blank spaces.

Liquid, Gas, Properties, Melts, Evaporates, Three, Solid, Vapour, Freezes

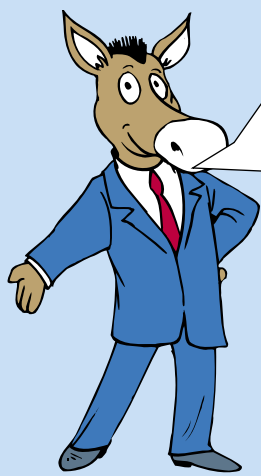
There areforms of water. Each phase has different.....
Ice is the.....phase of water. When water evaporates and becomes
waterin the air, it is in its.....phase.
Water can change from one phase to another. Iceto become
water. Water.....when it changes to ice, or
when it changes water vapour. Water vapour condenses when it changes to a
as it cools.

What have you learnt?

Water is an important resource that is never finished or used up. It comes in three different forms i.e. solid, liquid and gas, liquid being the main state that in which water mainly. As water is used or exposed to other conditions it changes its state from one phase to the next. It can change from liquid to solid, liquid to gas, or gas to liquid or solid to gas or solid to liquid.



2. Everydrop of water counts

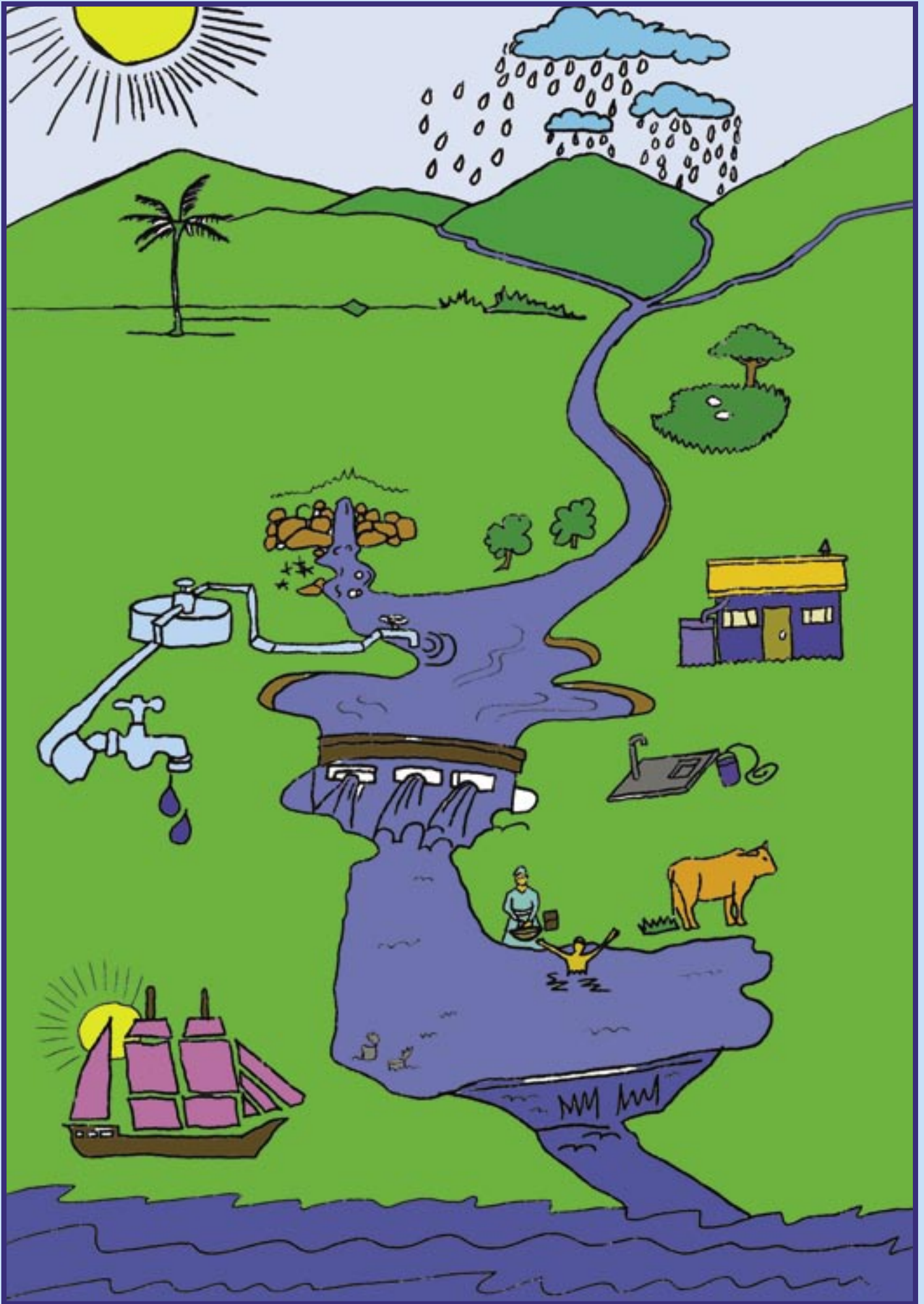


Did you know?
The total amount of water on earth stays the same. The water that exists now has always existed.

BACKGROUND INFORMATION

Water is an important natural resource that never finishes or gets used up. Water always changes its forms from liquid to solid or gas. These forms of water move from earth to the sky and back to earth. This process is called the **water cycle**. Water falls from the sky to the earth as rain or snow. Some of the water soaks into the ground and is stored as **groundwater**.

1. Look at the following diagram that illustrates the water cycle.



ACTIVITY 2A

In this activity you will:

- Describe the water cycle.
3. Describe what happens in the water cycle by using the following sentences :
- (a) The sun heats the Earth's surface and water changes to vapour.
 - (b) The rest of the water falls into streams, dams, rivers and / or oceans.
 - (c) Water falls on Earth as raindrops or snow.
 - (d) This is called the water cycle.
 - (e) Some of the water soaks into the ground and is stored as groundwater.
 - (f) Plants give off water vapour too.
 - (g) Water vapour in the sky condenses, it falls back to Earth as rain or snow.
 - (h) The heated vapour rises into the sky and forms clouds.

ASSESSMENT

Try to check the following:

Questions	Yes	No
1. Were you able to see all the steps in the picture?		
2. Were you able to describe what happens in each step?		
3. Were there any words you did not know?		
4. If yes (in 3) list those words.		
5. Did you look for them in the dictionary?		
6. If yes, provide their meanings.		

ACTIVITY 2B

Learn new words. Fill in the following puzzle using explanations below.

1.												
2.												
3.												
4.												
5.												
6.												

Across

1. ----- the process of changing water into a vapour.
2. -----the change of water from gas into a vapour.
3. -----very important resource.
4. -----the cycle of water on earth.
5. -----the gaseous state of water.
6. -----water droplets or ice particles drop down.

Clue

- Evaporate – dry
- Condense – becomes harder
- Precipitate – rain
- Vapour – gas
- Cycle – round & round.



3. How to access groundwater?

ACTIVITY

In this lesson we will:

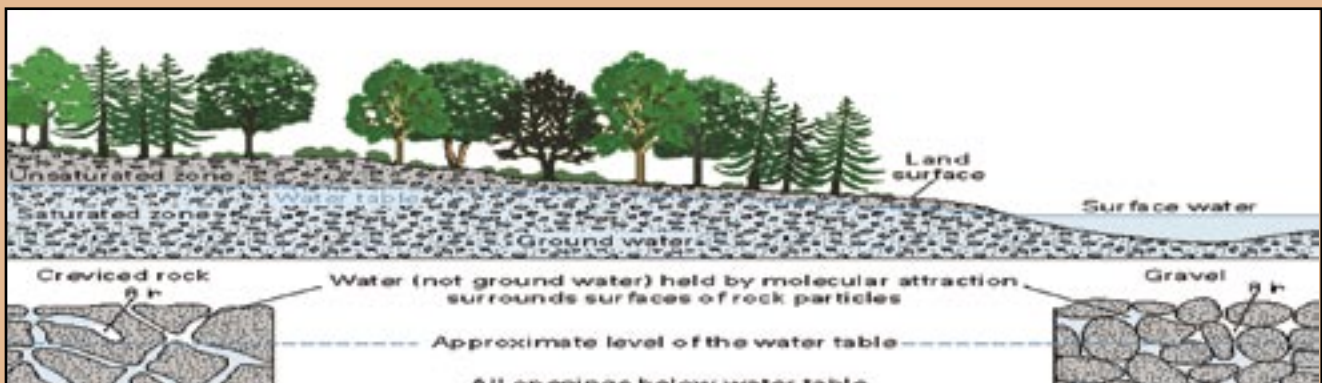
- Define what groundwater is.
- Explain where groundwater is found.
- Identify sources of groundwater pollution and possible solutions.



Did you know?
Only 3% of the Earth's water supply is fresh water; and almost 2% of that is groundwater?

BACKGROUND INFORMATION

Groundwater is water that collects below the earth's surface in bedrock, spaces between soil and rock particles.



Groundwater quality is better than that of surface water because it is not exposed to pollution. However substances that seep into the ground can pollute groundwater.

What is groundwater?

Groundwater is water located beneath the ground surface in soil, pores and in the fractures of rock formations.

Do you know where the water you drink comes from?

In some areas of South Africa people get their water from under the ground. In these areas small amounts of rainwater soak into the ground and collect in the cracks and spaces in the rock deep under the ground. We call this **groundwater**.

People often think that groundwater occurs in large underground dams or lakes or in streams under the ground. Groundwater is, however, only water that fills the natural openings that are in rocks or sand under the ground. These openings can take many forms, for instance, the cracks or joints between rocks, the openings between small sand or mineral particles in the soil, or the openings between sand particles in dunes or river sand-filled riverbeds.

Groundwater comes from rain. A small percentage of rain that falls as part of the water cycle soaks into the ground and fills the openings in the rocks and into the sand below the surface of the ground.

How do we access groundwater?

We can drill down to the water underground and pump it up so we can use it. Water can be pumped to the surface with a pump. There are many different kinds of pumps.

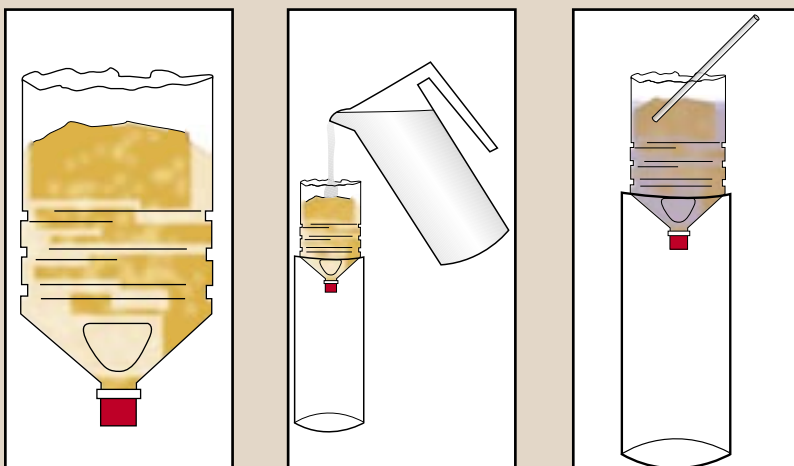
ACTIVITY 3A: Making our own groundwater

In this activity we shall demonstrate where groundwater is found and how it is obtained

1. Take a glass or clear plastic container and fill it with dry gravel and small stones at the bottom and sand.
2. Slowly pour some water into the sand observe what happens. This shows how water collects under the ground.
3. Pour some more water into the sand. Make sure that you do not fill the container to capacity. What happens to the level of water? We call this top level of water, the water table.

4. Wait a few minutes and record what you see.

5. Take a drinking straw and put it into the base of the container. The straw is like a borehole. Suck up some water. What happens to the water table now?



6. Record your findings and share them with others.

Explanation

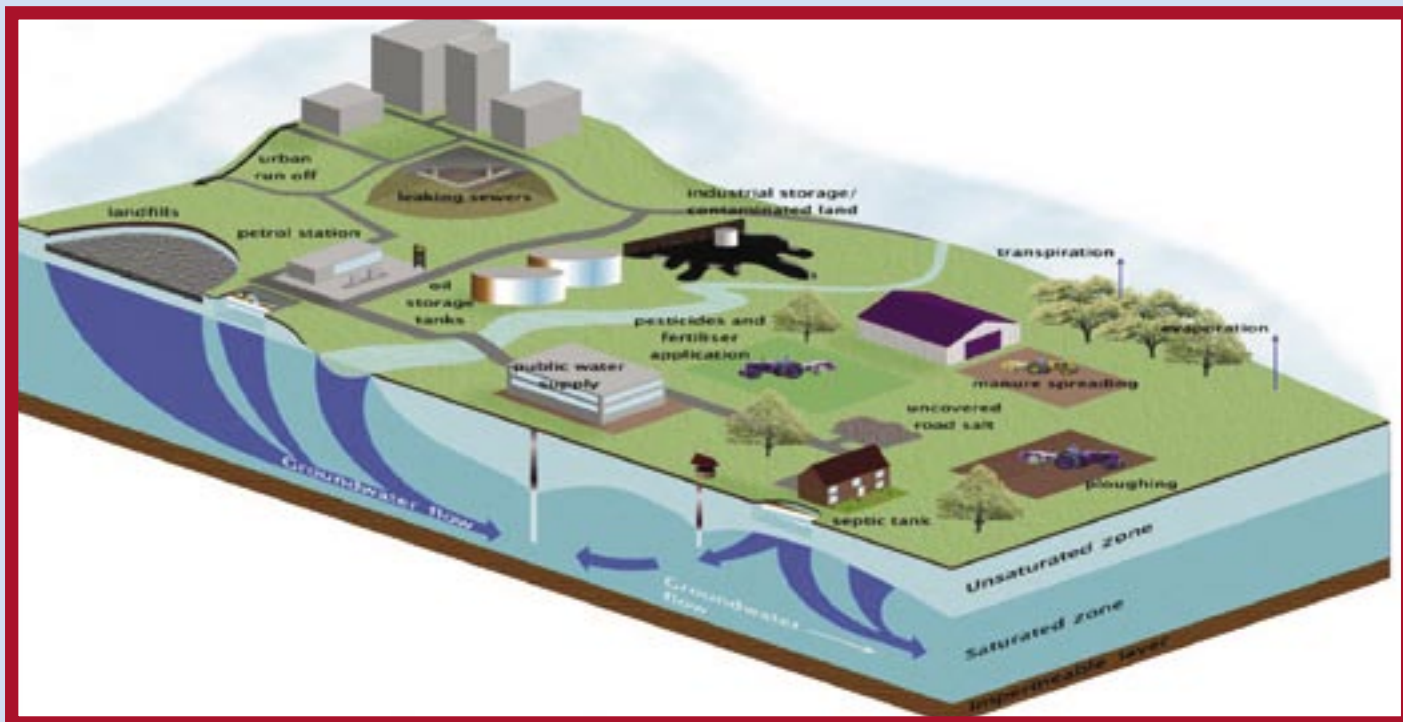
This is the method which is used by most communities that do not have taps or access to surface water.

ACTIVITY 3B

Groundwater pollution

In this activity we will:

- Identify potential sources of water pollution.
- Suggest different solutions to the potential problem.



WHAT TO DO?

1. Study the above picture and identify the potential pollution source.
2. List them in the following table and brainstorm the possible solution to the problem identified.

Now fill in the following table.

Potential Pollution Source	Solution
1. Over application of fertiliser.	Apply fertilisers sparingly.
2.	
3.	
4.	
5.	
6.	

WATER USE EFFECIENCY

Water use efficiency



4. Water Resources

ACTIVITY

At the end of this activity you will be able to:

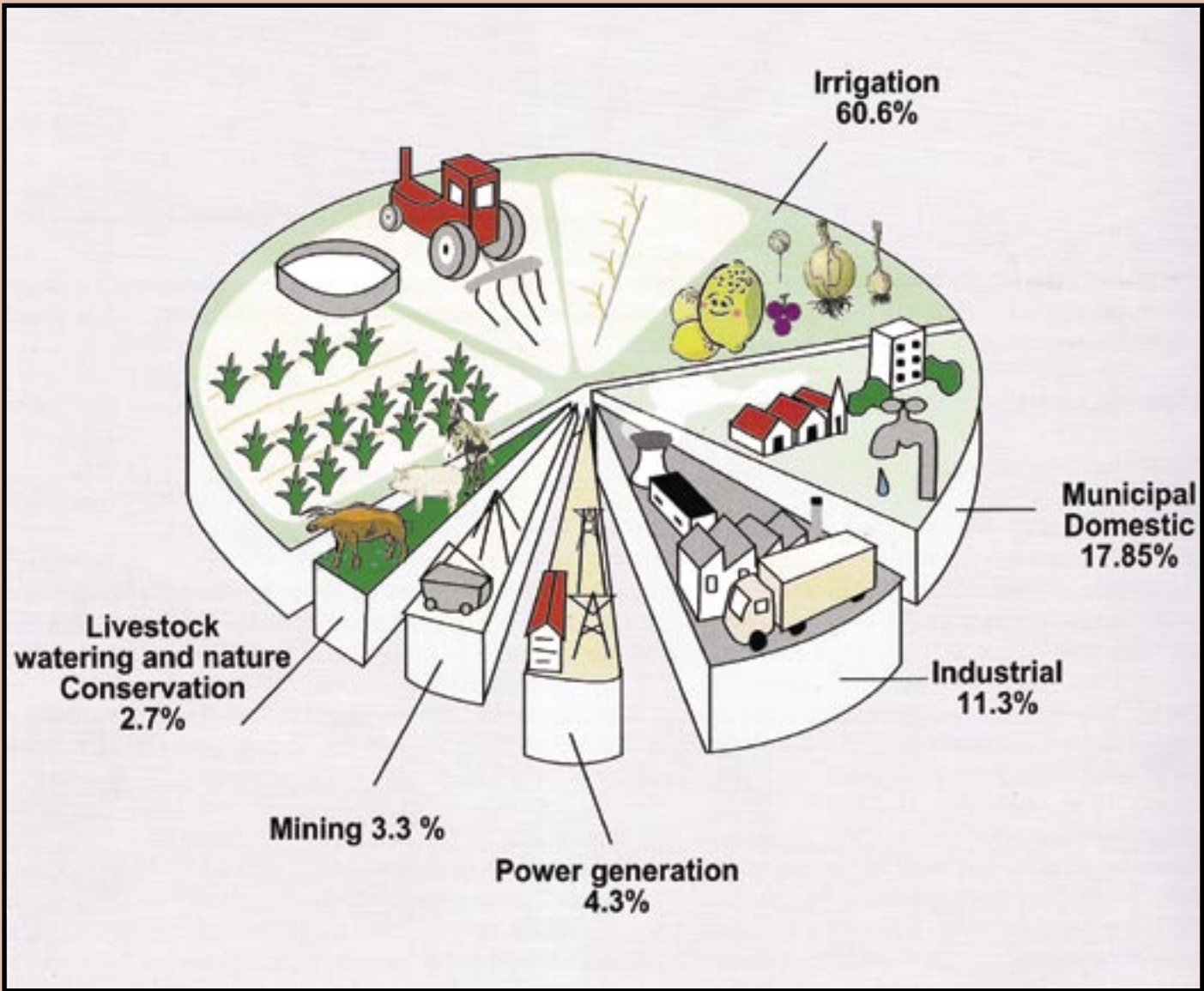
- List all the water users from the pie chart.

BACKGROUND INFORMATION

South Africa is a water-stressed country. Water is our most precious natural resource. We have to conserve it in every way we can. Remember that conserving a resource means looking after it and using it wisely so that there will be enough of it in the future.

How do we use water in South Africa?

Look at the pie chart that shows the different ways in which we use water in South Africa.



LET'S GET STARTED ON CONSERVING WATER.

1. Work in pairs and answer the questions below using the information on the pie chart.

(a) Which is the biggest user of water in South Africa?

--□

(b) List all the users of water from the biggest user of water to the smallest user of water.

--□

--□

--□

2. Write down some ways in which you think we use water in the 'municipal and domestic' slice of the pie.

--□

--□

Water use efficiency

5. Use Resources wisely

You will need:

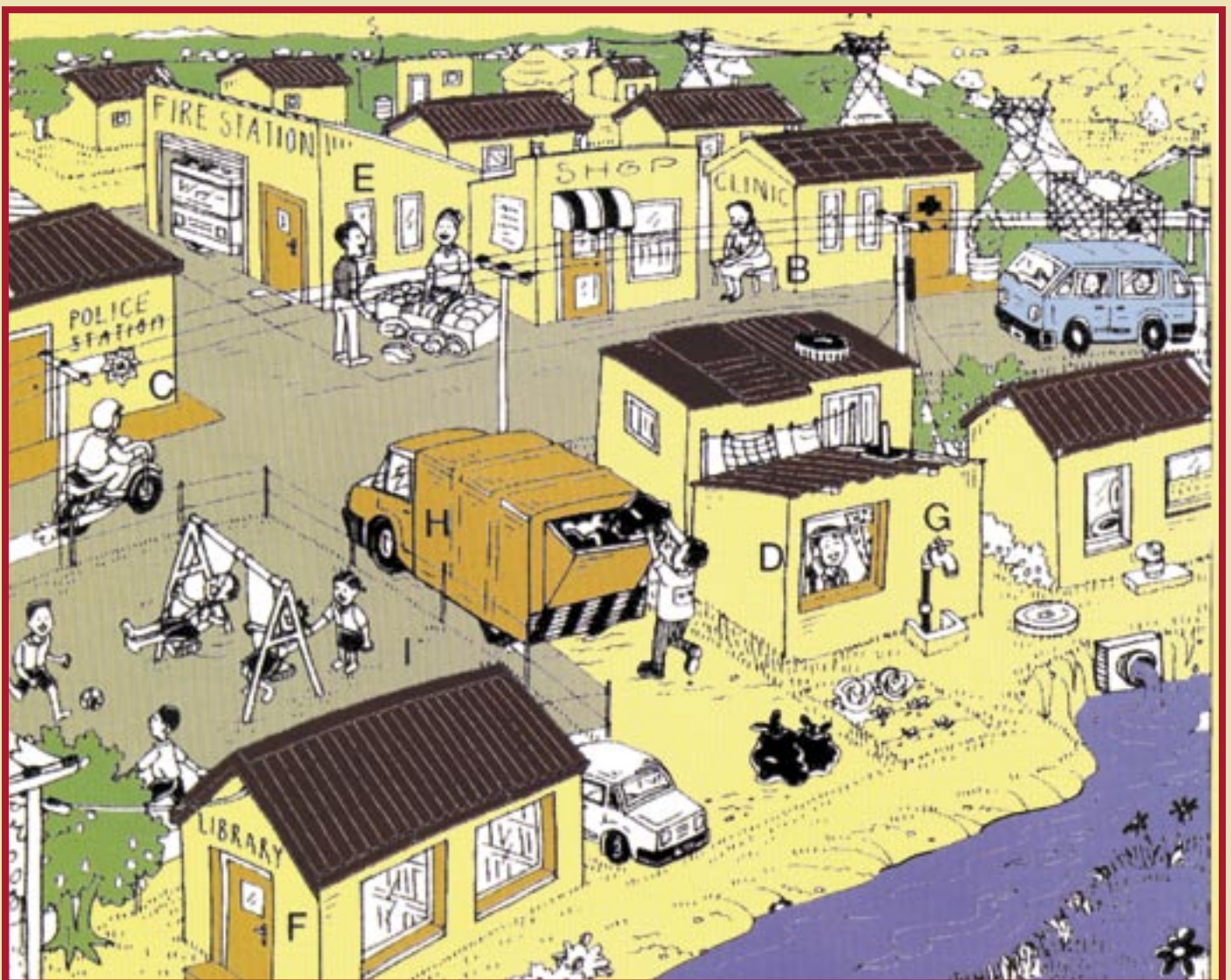
- Pencil
- Exercise books

ACTIVITY 5A

Choose a partner you will work with in this activity.

- In pairs, study the following pictures and answer the questions that follow:

PICTURE A

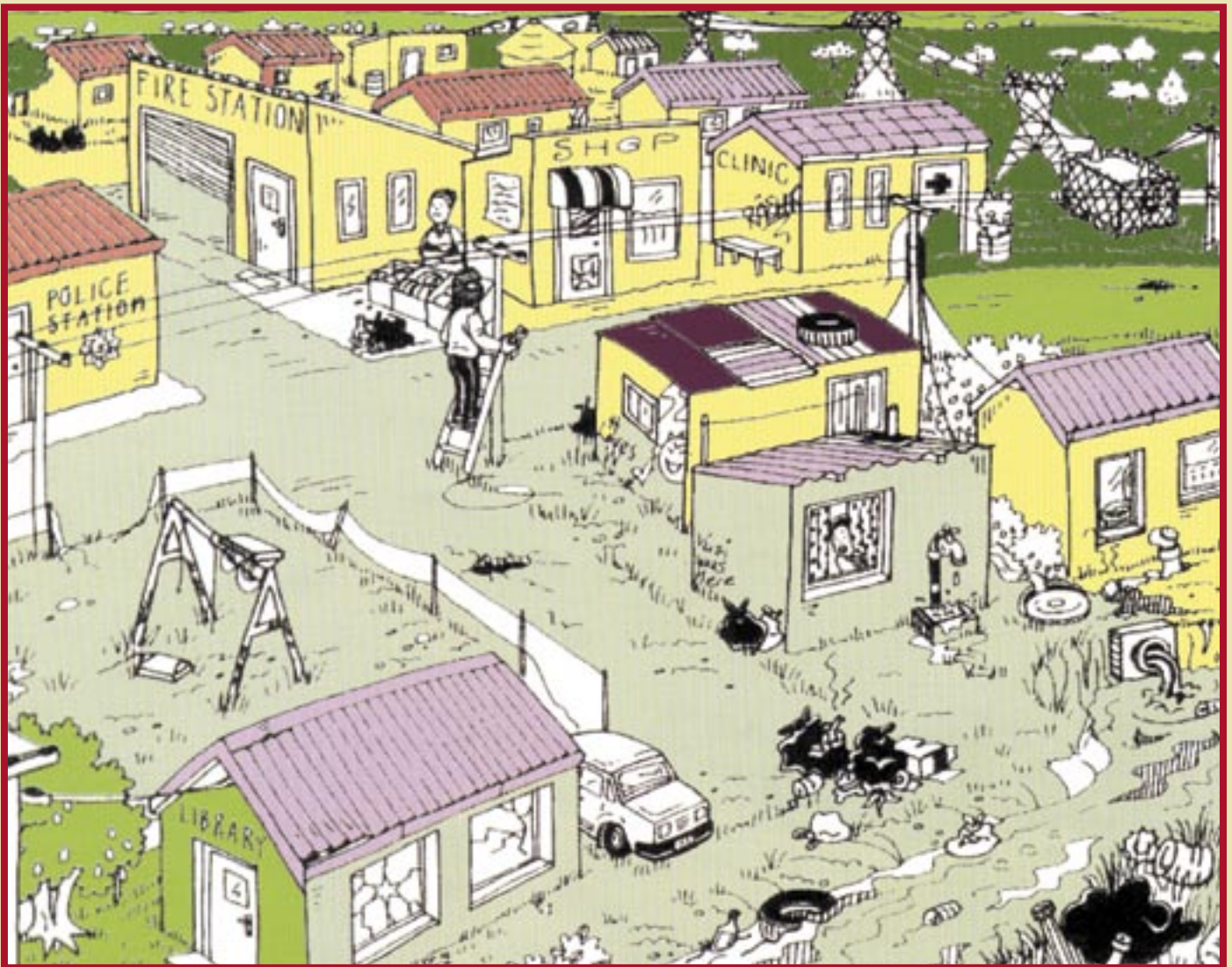


- For each letter A - I Identify the resource or service shown and write it in column A of the worksheet.
- In column B state whether it is a resource or a service.
- In the third column indicate with a tick (✓) or a cross (X) which of these resources they do or do not have in their community?

Picture of	Resource / Service	(√) / X
A.		
B.		
C.		
D.		
E.		
F.		
G.		
H.		
I.		

ACTIVITY 5B

PICTURE B



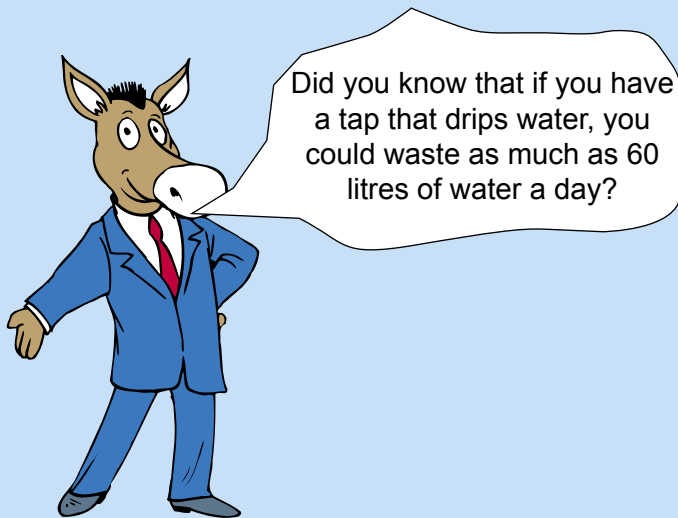
Do the following exercise in pairs, but each learner should write the answers in his / her own book.

- List ways in which people in this community are wasting resources.
- List ways in which people in this community are acting irresponsibly by not using services properly.
- What will have to be done to restore the damage done to resources and services in this community?

Adapted from: Oxford Successful Economic and Management Sciences: Clitheroe, F. Pg 8 – 9.

FIXING A LEAKING TAP

- A leaking tap was identified as one of the water wasting activities in this community.



- What do you do in your home when you see a leaking tap?

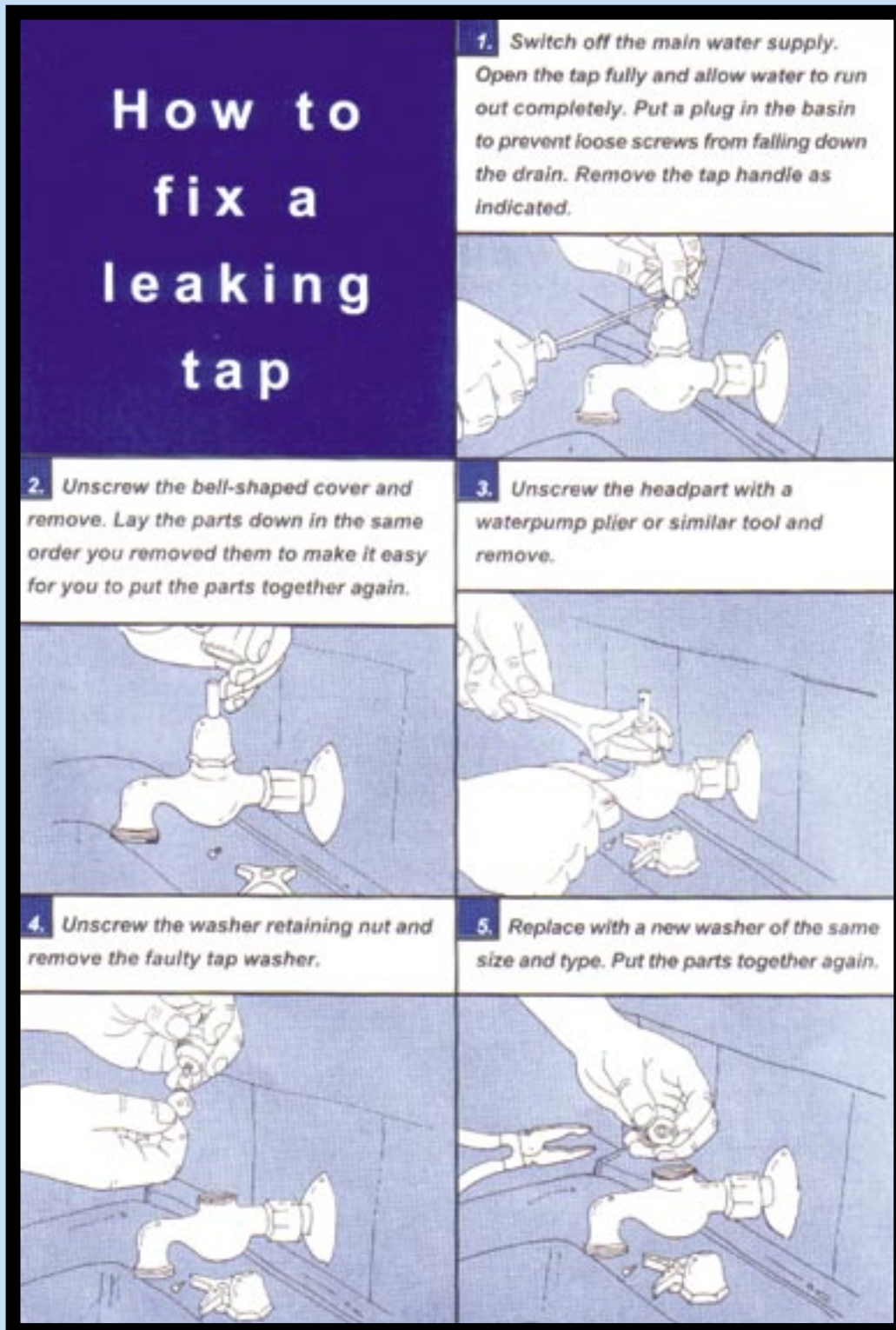
We are responsible for leaks and water losses in our own homes. Here are the three R's of saving water, the environment and money.

- Reduce daily usage of water.
- Re-use water whenever possible.
- Repair leaks.

ACTIVITY 5C

HOW TO FIX A LEAKING TAP?

- Carefully observe as your educator shows you the method of fixing a leaking tap in a bid to cut water losses, and save money.



- Each group will be asked to dismantle the tap and try out the method of fixing a leaking tap.

GLOSSARY OF TERMS

Washer: A thin, flat ring of metal or rubber, which is placed over a bolt before the nut is screwed on.

WATER QUALITY

Water Quality

6. Do not pollute water

ACTIVITY

In this activity you will be able to:

- Discuss how different events in the environment cause pollution of water.

ACTIVITY 6A: WATER POLLUTION

Read the information below and answer the following questions.

WATER POLLUTION

Water pollution happens when the waste we produce as part of our everyday lives gets into water. This can make the water:

- Less suitable for the purposes we usually use it for.
- Harmful or potentially harmful to our welfare, health or safety.
- Harmful or potentially harmful to the animal and plant life that depends on it.

Water pollution in densely populated areas can be caused by many things. In order for communities to solve water pollution problems in their settlements, we need to find out what is causing these problems. The causes of these problems may be:

- Social (people's behaviour): **Social problems** are the ones we get because of our behaviour. Water and toilet facilities may be misused because of lack of awareness and education. Many people don't know that misusing facilities can cause health problems and affect our long-term survival, and others believe it's the government's job to keep our surroundings clean.
- Physical (things we can see): **Physical problems** are the things we can normally see such as when there are no bins or toilets, or when they don't work properly, or when the facilities used to take waste away from our communities are broken. These facilities could be stormwater drains, sewerage pipes, or rubbish collection trucks. Physical problems are often linked to social and institutional problems.
- Institutional (what the local authority is doing): **Institutional problems** are the problems caused by the local authority. Local authorities are responsible for providing communities with water and sanitation services. But often they are not able to give us services, or to maintain them properly. So if the local authority hasn't got enough money to take rubbish away as often as it should, or to give us enough black plastic bags to put rubbish in, or when it hasn't got staff who can put in services, or it doesn't know what services we need, there are institutional problems, for example when the local authority can't repair trucks or when the waste services are vandalised by people or animals.

Most pollution is caused by all three of these problems together. Keeping our natural resources clean and pollution free is a huge challenge to all of us. Polluted water can make us sick and kill animals and plants.

- Look at the picture below and discuss how different events in the environment cause pollution of water.



1. Name three causes of water pollution in densely populated areas.
2. Name two other problems that are linked to physical problems.
3. What kind of water pollution-related problems do we come across because of our behaviour?
4. Who is causing the problem?
5. How can the problem be solved?

State whether the following sentences are True or False

Read the following sentence in relation to water pollution and place a tick if the statement is true or a cross if the statement is not true.

STATEMENT	TRUE	FALSE
1. Institutional problems are caused when facilities are not maintained by the municipality.		
2. Local authorities provide us with water and sanitation services.		
3. Facilities used to take away waste are storm water drains, sewerage pipes etc.		
4. Physical problems are things that we cannot see.		
5. It is the government's job to keep our surroundings clean.		

7. Water Filtration



ACTIVITY

- Work out the solution to assist the family to purify water filtering device.

You will need:

- Water
- A large clean container
- Toilet paper
- Cotton wool
- Sand
- Stone
- 2 litre cool drink plastic bottle.

Problem: The Wasser family lives close to a river and uses water for drinking and other household purposes. Sometimes the water is very muddy and polluted. How can we help them to get clean water for drinking?

Read the following paragraph

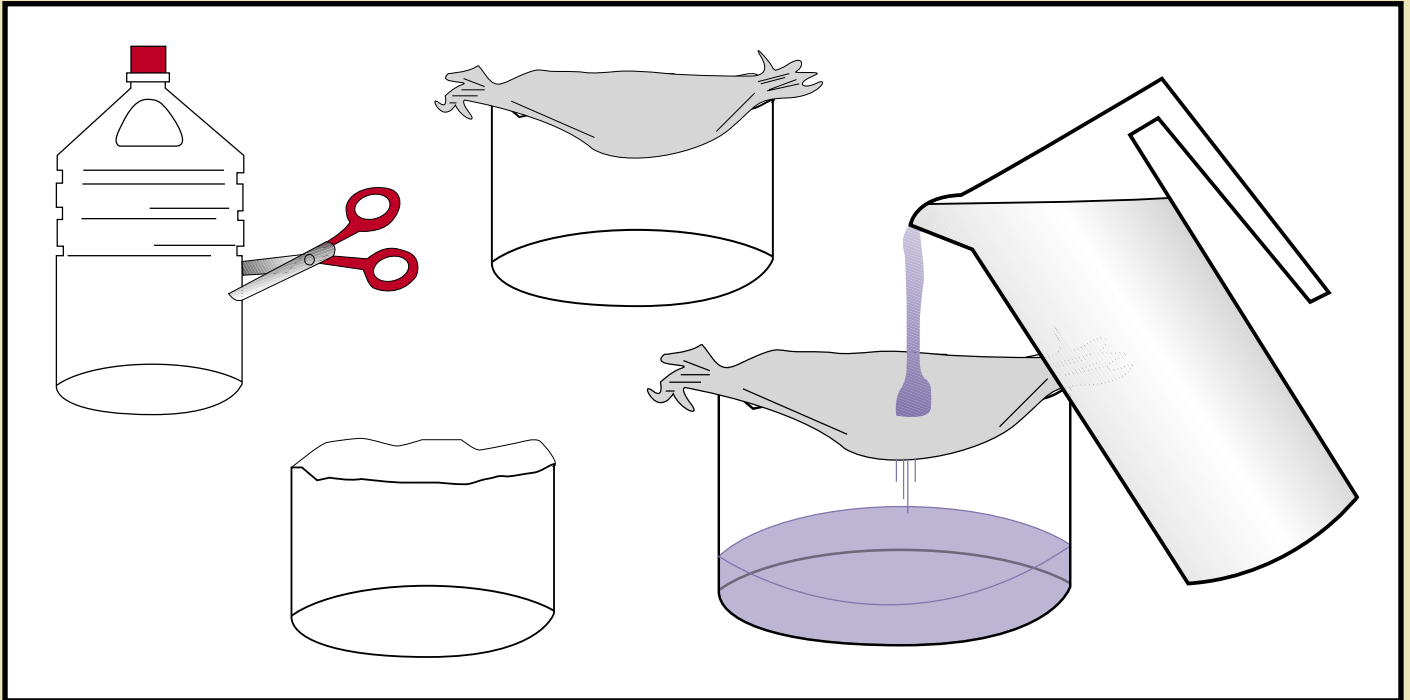


ACTIVITY 7A: PURIFY WATER BEFORE YOU DRINK IT

- Work out a solution to help the Wasser family by constructing a water filtering device following the instructions below:

Given the following apparatus:

A large clean container, toilet paper, cotton wool, sand, stone and 2 litre cool drink plastic bottle.



1. Experiment with the items and choose those that you are going to use to construct a water filter.
2. Make a filter device by following the following steps:

- Make dirty water.
- Cut the 2 Litre plastic bottle in half and use the base of the bottle.
- Take the cloth and fold it in a way that it makes a container.
- You may use the newspaper for this.
- Hold the cloth on top of the water bottle.
- Pour your dirty water onto the cloth.
- Observe what happens and record your results.

- Is the water you have just filtered now safe to drink?
- If not, explain purification methods that could be used to make water safe to drink.
- (You may use the picture below as a guide)

Make water safe



1 Collect fresh water every day.



2 Pour (filter) the water through a clean cloth.



3 Pour 1 teaspoon (5ml) of bleach into 20-25 litres of water; mix well and wait for at least 30 minutes (half hour).

or



Boil the water. Let the water bubble for one minute, to make it clean and safe.



4 Safe water can easily get dirty. Store safe water in a clean



5 Use a clean cup each time to scoop



Pour water from container when you

Now: Write a letter to the Wasser family advising them on what they should do to purify the water. Brainstorm with your partner for this activity.

GLOSSARY OF TERMS

Pollute: To make something dirty and dangerous to use or live in.

Filtration: A process of passing a substance through a device that is designed to remove certain particles contained in it.

Purification: To make substance pure by removing any harmful, dirty or inferior substances from it.

SANITATION, HEALTH AND HYGIENE



8. Healthy Living – Stay away from germs

ACTIVITY

In this lesson you will:

- Conduct research to find out the way people lived in the past and present.
- Compare the lifestyles of people in the past and present.

ACTIVITY 8A - How human needs were met in the past (project)

What to do?

- Interview a parent or grandparent about personal health and hygiene with a view to finding out what the problems were in the past and how they were solved.
- Conduct the same interview with your peer/ friend using the following questions:

- (1) Where did / do you get your water in your times?
- (2) How did you dispose of rubbish/litter?
- (3) What kind of toilets did/ do you have? (If there were any)
- (4) What health problems arose as a result of these toilets, water source, and rubbish disposal methods?

Use the following table to record your information.

Service	Village / Town		Problems	
	Past	Present	Past	Present
Obtaining water				
Kind of toilets used				
The way the rubbish is removed				

- In your analysis of information how would you say the way people in the past lived?
- Which lifestyle would you prefer, the past or the present?
- Give a report back to the whole class on your findings focusing on the link between the type of facilities used nowadays and in the olden days and their effect on personal health.

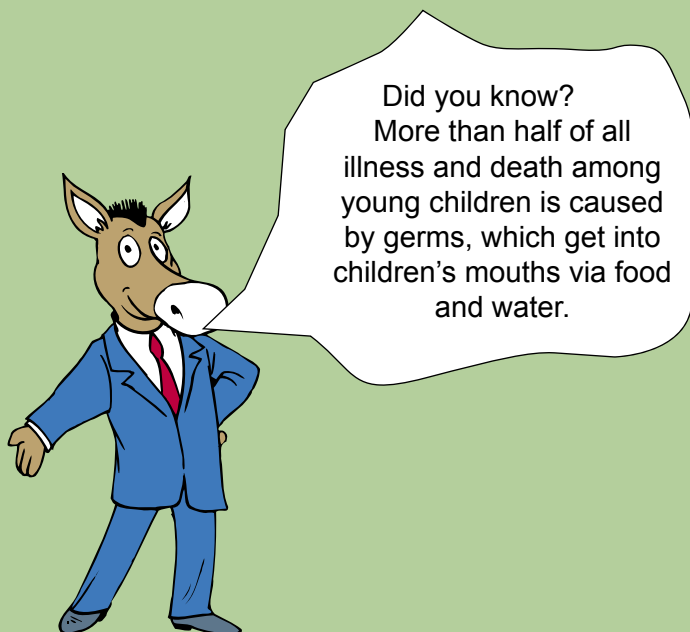


9. Healthy Environment

ACTIVITY 9A

Read the following fact file.

A healthy environment means a healthy life. Is the environment in which you live healthy? Is the air clean? Is the water clean? If the environment we live in is not healthy, we can get sick; we need a healthy environment to stay healthy. In communities without toilets, without safe drinking water, and without safe refuse disposal, it is very difficult for families to prevent the spread of germs.



- Look at the following pictures and in each picture do the following:
 - (a) Identify unhealthy conditions.
 - (b) Explain the effects that these unhealthy conditions have on the people in the picture.
 - (c) Explain what they could change to make sure that the people will not be exposed to diseases.



Flies feed on uncovered faeces



The flies carry disease



They all on the uncovered food and therefore contaminate the food



The family sits down to eat their meal unaware that it's now covered with germs



Soon they all start to feel ill with stomach cramps



They are all suffering from diarrhoea



After going to the toilet



Nathi does not wash his hands



He meets Tshepeng and shakes his hand



Tshepeng meets Sizwe and shakes his hand



Nathi, Tshepeng and Sizwe meet many friends and the germs pass on to all of them



Soon everyone is suffering from diarrhoea



A man with diarrhoea goes to the toilet behind his house. The diarrhoea has lots of germs in it



A goat eats the diarrhoea. The goat's nose and feet get dirty from the diarrhoea



The goat goes to where the baby is playing. The baby gets some of the germs on his skin



The mother picks up the baby when he cries. The diarrhoea germs on the baby's skin get onto the mother's hands



The mother prepares food for the family. She does not wash her hands. The diarrhoea germs get onto the food.



the whole family gets diarrhoea

WORKSHEET

NAME----- GRADE -----

Unhealthy condition	Effect on health	Solution
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		

Facts about a healthy environment

Every house should have a toilet

Germs can easily be spread when people do not have proper toilets. An important way to keep yourself and your family healthy is to have a safe toilet. There are many different types of toilets and the one you use depends on where you live and what you can afford.

A cheap safe toilet is a VIP toilet. VIP stands for Ventilated Improved Pit. A VIP stops flies and smells. Contact your nearest Department of Water Affairs and Forestry office to see whether someone can help you build one.

Build your toilet downhill and at least 50 metres away from any borehole to prevent the waste from the toilet from polluting the groundwater.

Small children are often afraid to use a pit toilet. Keep your toilet clean and attractive so that no-one in your family is afraid to use it. Always wash your hands.

Germs are also spread on our hands. Stop disease spreading. Make sure you wash your hands after going to the toilet.

Collecting and storing water

Always make sure your water container is clean before you collect water.

Store the water in a covered bucket. Don't put your hands in the water, use a dipper (like a jug or a cup).

Flies

Flies can also spread germs. You must always cover food and water.

If possible, do not let anyone go to the toilet in the open as this attracts flies.

Summative assessment

- Answer the following class work in your workbooks:

State whether the following statements are true or false.

1. The faeces of children and babies are harmful and cause diseases just like everyone else's.
2. You can catch diarrhea from a dirty toilet seat.
3. Flies are annoying pests, but they are harmless.
4. You should always wash your hands with water and soap or wash after using the toilet.
5. Boys need hygienic toilets more than girls do.
6. It is important to keep toilets clean because they just get dirty again.
7. I don't need to wash my hands after urinating because I don't wee on my hands.
8. People in urban areas have a right to better sanitation.
9. I should always wash my hands before I eat.
10. It is better to save water by not flushing the toilet.

GLOSSARY OF TERMS:

Germs:	It is a very small organism that causes disease.
Borehole:	A deep round hole made by a special tool or machine, especially that is made through the ground to access water.
Defecating:	Getting faeces or stools out of your body.
Refuse disposal:	Getting rid or throwing away rubbish and all the things that are no longer wanted.
Diarrhoea:	It is a sickness which makes one's body loses a lot of liquid in the form of liquid faeces and vomiting.
Sanitation:	A process of keeping places clean and healthy, especially by providing a sewerage system and a clean water supply.
Faeces:	It is a solid waste substance that people or animals get rid of from their bodies by passing it through the anus.
Urban area:	Area that is considered a town or city.



10. Children's Health Rights

ACTIVITY

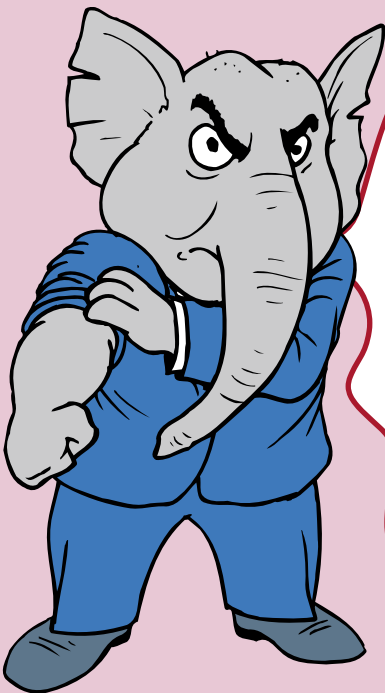
In this activity we will learn:

- About rights and responsibilities.
- Match the rights and responsibilities that children have to know and apply.

ACTIVITY 10A

What to do?

- Read the following children's health rights and responsibilities.



All children have a right to a healthy diet.

All children have a right to clean water.

All children have a right to a clean, living environment.

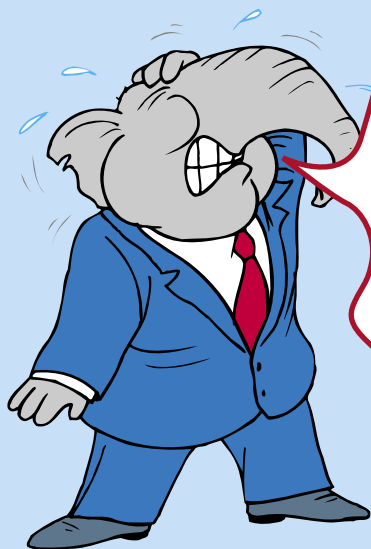
All children have a right to sanitation.

All children have a right to protection from domestic violence.

All children have a right to health care.

Adapted from: Oxford Successful: Life Orientation, Grade 4 Learners Book; Clitheroe, FET al, Pg 16 - 17.

But if children have these rights, they must also be responsible themselves. For example:



Children must not waste food and must also help to prepare the food.

Children must help to keep the toilet area at home and at school clean.

Children must not waste water and must not pollute water.

Children must help to keep the home clean and must not litter surroundings.

Children must look after their health as best they can.

Children must help their parents whenever they can.

Adapted from: Oxford Successful: Life Orientation, Grade 4 Learners Book; Clitheroe, FET al, Pg 16 - 17.

- Match up the health rights 1- 6 with the health responsibility A – F in your workbooks.
- Exchange your books and mark the exercise.

RIGHT	RESPONSIBILITY
e.g. Right to a healthy diet.	
1.	
2.	
3.	
4.	
5.	
6.	

Study the following picture and respond to the questions that follow.



1. In each of the pictures which rights are not being protected? Write down your answer in your workbook.
2. Discuss about how you would change things in each picture to make sure that the children's rights are being protected.

GLOSSARY OF TERMS

Rights: It is something that you are morally or legally entitled to do or to have.

Responsibility: Are things that you feel you ought to do because it is morally right to do them.

Sanitation, Health and Hygiene

11. Resources and services

You will need:

- Pencils
- Exercise books

Read the following background information.

Everyone should have access to resources such as a place to live and a safe water supply. In settlements such as towns and cities, where a lot of people live, there are many services that people should have. For example, there should be a service that removes rubbish, and a sewerage system.

People who live in a settlement must pay their local municipality for these services.

ACTIVITY 11A

- Your educator will read and explain the following case study to you.
- Check the meaning of resource and service in the dictionary.
- Answer the questions that follow.

VILLAGE LIFE	URBAN LIFE
<p>Sipho and Lebo live in a village in the Free State. They live with their grandmother in a house on a small plot of land.</p> <p>There is a tap about 100 metres from their house that all people in the village use for water. Sometimes the tap does not work, so they help their grandmother to get water from the stream where the cattle drink.</p> <p>They have a 'VIP' toilet at the bottom of the plot. This toilet has a seat over a deep hole in the ground. They wish they had a flush toilet like the ones they have seen in town.</p> <p>Their grandmother cooks their food in a pot over their fire.</p>	<p>Lifa and Busi live in a small town in Limpompo. Lifa and Busi and their parents moved into a municipal house last year. The house has electricity (which the family never had before). They have a small electric stove for cooking. With the new electric lights, Lifa and Busi can read and do homework at night, and watch some television. The electricity costs R50 per month.</p> <p>The house has taps inside the house, but the flush toilet is outside. The family pays the municipality about R15 per month for water. Lifa and Busi's mother is glad that she does not have to walk to the community tap as she did in the past.</p> <p>She is also pleased that the municipality now collects the rubbish once a week. It costs R30 per month for this service, but the streets are cleaner because rubbish is collected.</p> <p>The town has a police station and a community hall next to the clinic.</p>

- Compare the environment where Lebo & Sipho live against Lifa & Busi's environment.

Question	Lebo& Sipho	Lifa & Busi
(a) Is this village's water supply reliable? Explain your answer.		
(b) Where do they get their water when the tap does not work?		
(c) How can the family make the water from the stream safe for drinking?		
(d) Which services does the family have to pay for every month?		
(e) What services does the family have now that they did not have in the past?		

- Comment on lives of these children.
- Contribute to the class open discussion about the life situations shown in the case studies above.

ACTIVITY 11B

The picture below shows different services needed in a settlement.



- Together with your partner, look at the pictures 1 – 8, discuss what service is being provided in each one and write down the number and the service being provided.

Use the following worksheet to answer your questions.

NUMBER	SERVICE PROVIDED
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

I. Answer the following questions about each of the pictures:

- Does your village, town or city offer these services?
- Does your family make use of the services? If not, why?
- If you do not have these services in your area, can you think of reasons why you do not have these services?
- Do you think it is fair for you not to have these services?
- For those services that you do not have, where do you have to go to get them?

Adapted from: Monteith, M et al.: Oxford Successful: Social Science Grade 4 Learner’s Book, Pg 18 – 20.

GLOSSARY OF TERMS

Resources: They are things that a country has and can be used by its people or can be used to increase the country’s wealth, such as coal, oil, land etc. Sometimes these can exist naturally, e.g. water, land, minerals etc.

Services: A service is something that the public needs, such as transport, communications services, hospitals, energy supplies etc. which is provided in a planned or organised way by the government or an official body.



Sanitation, Health and Hygiene

12. Community efforts in fighting poverty

ACTIVITY

In this lesson you will be able to:

- Take an active role in community projects to fight poverty and help people to have better lives.

ACTIVITY 12A

Let's wake up and fight poverty

Read the following story and answer the questions that follow:

Mr. Collie, a grade 4 teacher, attended a community garden workshop. When he came back from the workshop he informed his class about the Sofasonke Garden Project in their community in Mpumalanga. The project works to develop disadvantaged communities in the local area. The vegetable gardens provide food for families in the community. The fresh vegetables keep the children healthy. The vegetable gardens provide an income for the women who sell the vegetables to hawkers, schools and the public. The Sofasonke Garden Project is looking for volunteers to help in their garden project and he had taken the initiative of informing the project leader that his class will be part of the garden project. Learners wanted to start immediately.

The learners divided themselves into groups and each group prepared a bit of the soil for their own vegetables. They planted the following seedlings: cabbage, onion, beetroot and spinach in rows, and took turns to water the seedlings every day, even in the holidays.

Learners were very proud to be involved in the community project and wanted to share what they had learned with their families. They invited their parents to see the garden.

QUESTIONS

1. Why was it important for the learners to be involved in the community garden project?
2. What is the name of the project?
3. What skills did learners learn in the project?
4. Name two ways in which the project helped people in the different communities?
5. Which seeds were planted?
6. In what ways did the project in Limpopo help people to fight poverty?

ACTIVITY 12B

Having read the story, research in your community the following:

- What problems of poverty are there in your community? List them.
- What is being done about those problems? E.g. garden, sewing etc.
- Choose one project and draw a plan on how the project will be carried out.
- Mention all members that will participate in the project.

WATER SAFETY

13. Water Safety Rules

ACTIVITY

At the end of this activity you will be able to:

- Identify dangers and responsible safety measures in and around water.

BACKGROUND INFORMATION

What are the water safety rules?

It is a good idea to learn to swim as soon as you can, especially if you live near a swimming pool, river or dam. But even good swimmers can drown or have accidents.

To prevent accidents, always obey these important safety rules.

DO NOT

- Swim alone.
- Swim where nobody can see you.
- Swim near surfers or people in boats.
- Leave small children alone in or near water.
- Dive or jump in where people are swimming.
- Play wildly in or near water.
- Push or scare anyone.
- Use blow up toys or arm bands which are leaking.
- Have too many people in a boat.
- Swim where there could be sharp objects under the water.
- Swim when you are cold.
- Swim after you have eaten – wait for about an hour.
- Swim when you are tired.
- Swim when you are sick.
- Swim in fast flowing rivers.
- Swim during a thunderstorm.
- Push a friend into or under water.
- Dive into murky water.



ACTIVITY 13A- SAFETY RULES

- Look at the pictures above.
 - (a) Match up each picture with one of the water safety rules.
 - (b) Write a short paragraph about water safety.

How to behave around swimming pools?

Accidents can happen very easily in and around swimming pools. Look at the picture of a swimming pool which shows some dangerous situations.



ACTIVITY 13B- DANGERS AT THE POOL

1. In groups look at the picture above, identify and write down six dangers that are shown in the picture.

(a) Write down six safety rules that will prevent the dangers you identified in Question 1.

ASSESSMENT

You will be assessed whether you were able to:

- Identify the dangers in safety measures around water.
- Write a short paragraph about water safety.
- Identify dangers and responsible safety measures in and around water.

FORESTRY AND IAP'S

14. Why are trees important?

ACTIVITY

In this activity you will:

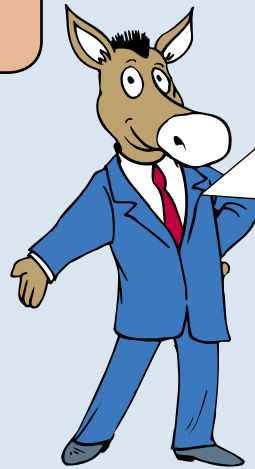
- Explore the importance of trees on our lives.
- List all the uses of trees.
- Discuss the value of trees in our lives.

ACTIVITY 14A - Lets Discover more about plants

ACTIVITY

In this activity we shall:

- Discover more about the trees.
- List more importances of trees.



Did you know?
Some trees seem to be magical homes for spirits and legends. Plants “breathe in” waste air (CO₂) we breathe out, and breathe out the oxygen. Many South African plants are use as medicines.

What to do?

Read the following passage and answer the questions that follow:

Where would we be without trees? Trees truly are our friends, generously giving us many things that we take for granted. In our school grounds, parks, gardens and along our streets, trees give us shade from the hot sun and shelter from wind and rain. Many bear fruit that people and animals can eat. Every day trees and other plants give us clean air to breathe. It is one of the miracles of Mother Earth that plants “breathe in” the waste air we breathe out, and breathe out the oxygen that we breathe in!

Look closely at a tree and you will find a whole community of animals and other plants living in it. Birds nest in the branches, insects and birds feed on the leaves, flowers and fruit and lizards scurry up and down the mossy trunk searching for food.

Trees inspire us with their beauty, their size and their great age; some seem to be magical homes of spirits and legends and others are a friendly jungle gym where we can climb, swing and build a tree house. Even after they are chopped down, trees continue to give: the wood to make our school benches and pencils, the paper this book is written on and even some fabrics that we wear are all gifts from the tree. No wonder every year we set aside a special day to celebrate and give thanks to trees!

Questions

1. List all the things a live tree can do?

2. List all the importances of trees after they are chopped down.

3. What is the relationship between trees and humans in breathing.

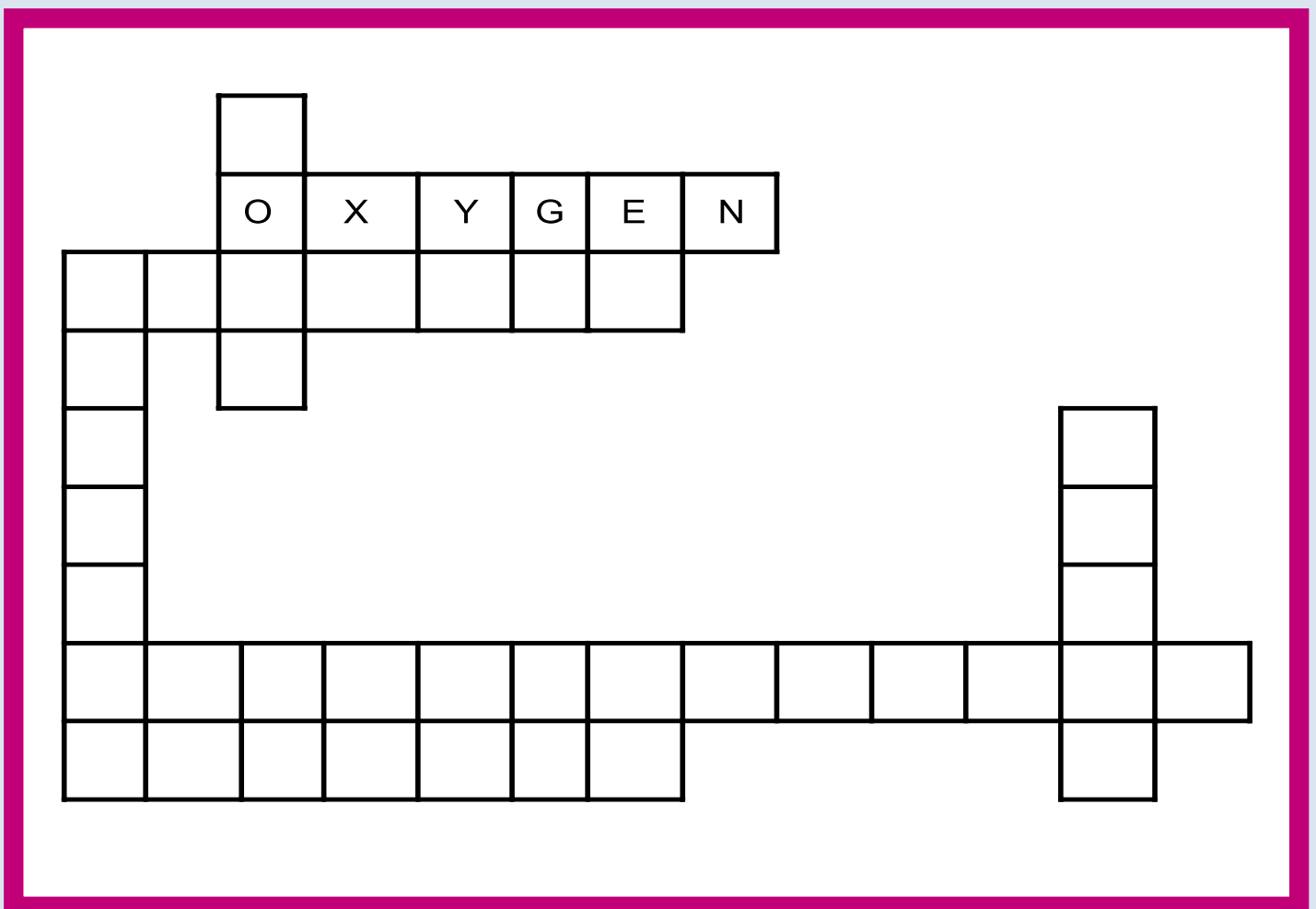
4. State whether the following sentences are True or False.

(a) Trees do not inspire us with their beauty.	
(b) Trees and other plants give us clean air to breathe.	
(c) Some fabrics that we wear are all gifts from the tree.	
(d) A tree cannot bear fruit.	
(e) Every year we set aside a special day to celebrate the trees.	

ACTIVITY 14B

Enrichment Activity

Try to complete the following word puzzle about the value of trees.



1. Wood
2. Fabrics
3. Shade
4. Flowers
5. Oxygen
6. Carbon Dioxide
7. Shelter

Down

1. _____ make our school desks, benches and tables/
2. _____ we all wear are gifts from trees.
3. In our parks, gardens and along streets, trees give us _____.Across
4. Trees produce _____ which beautify nature.
5. Trees “breathe” out _____ we breathe in and “breathe” in (6)_____we breath out.
7. Trees also _____ our houses and crops from wind.

INVASIVE ALIEN PLANTS

Invasive alien plants

15. Identification of invasive alien plants

ACTIVITY

At the end of the activity you will be able to:

- Identify invasive alien plants.

ACTIVITY 15A



Black Wattle



Black Wood



Unidentified



Unidentified



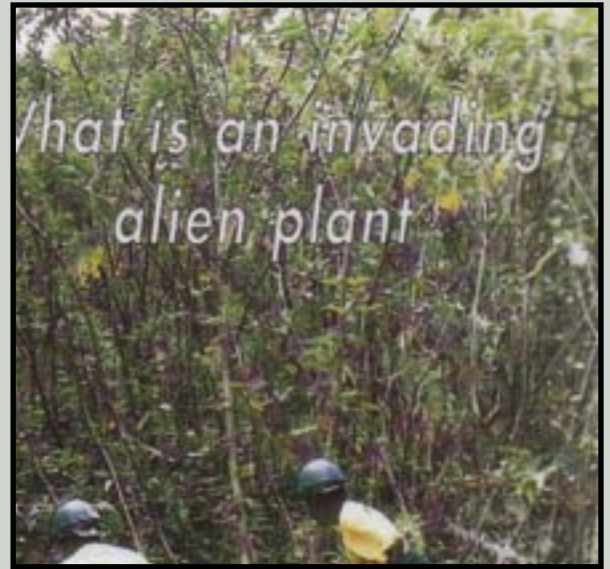
Grey and Matchwood poplar



Castor oil plant



Triffid weed



Black Wattle



Poster Activity

- Look at the poster with the invasive alien plants.
- Find out if there are any plants that you know on the poster and share your knowledge with the rest of the class.

Group Work:

- Take a walk around the school grounds and see if you can identify any invasive alien plants that you have seen on the poster.
- Bring a few examples of the plants to the classroom.
- Look at the features or characteristics of the plants and describe it.
- In your groups develop an alien invasive plants poster.

ASSESSMENT

4	Has exceeded
3	Satisfied
2	Partially Satisfied
1	Not Satisfied

Your group will be assessed on the following:

	Excellent	Satisfactory	Need Attention	Not done at all
The topic is clear				
The purpose of the poster is accomplished				
The picture enhance the purpose				
Design, colour is appropriate and neat				

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Swimming South Africa