

# UNIT 1: RESOURCES



## VOCABULARY

Biodegradable	Fossil fuels
CFCs	Household waste
Conserve	Non-Renewable resource
Consume	Petroleum
Contaminants	Pollution
Cycle	Recycle
Debris	Reduce
Disposable	Renewable resource
Ecology	Resource management
Ecosystems	Waste minimisation
Environment	Waste stream
Finite	

## BACKGROUND

Natural RESOURCES are naturally occurring materials that form our earth. These materials include air, water, soils, rocks, timber and plants. The earth is the foundation of all life, so taking care of the earth and its resources should be a responsibility shared by all. All resources are interconnected, so a deficiency in one area puts pressure on all others.

Our basic needs of air, water, food and shelter are supplied by these resources. The environment is fragile. If just one of these four basic needs is removed from a habitat, humans, animals and plants suffer. As earth's population increases, demand on these resources increases and thus their quantity is diminishing.

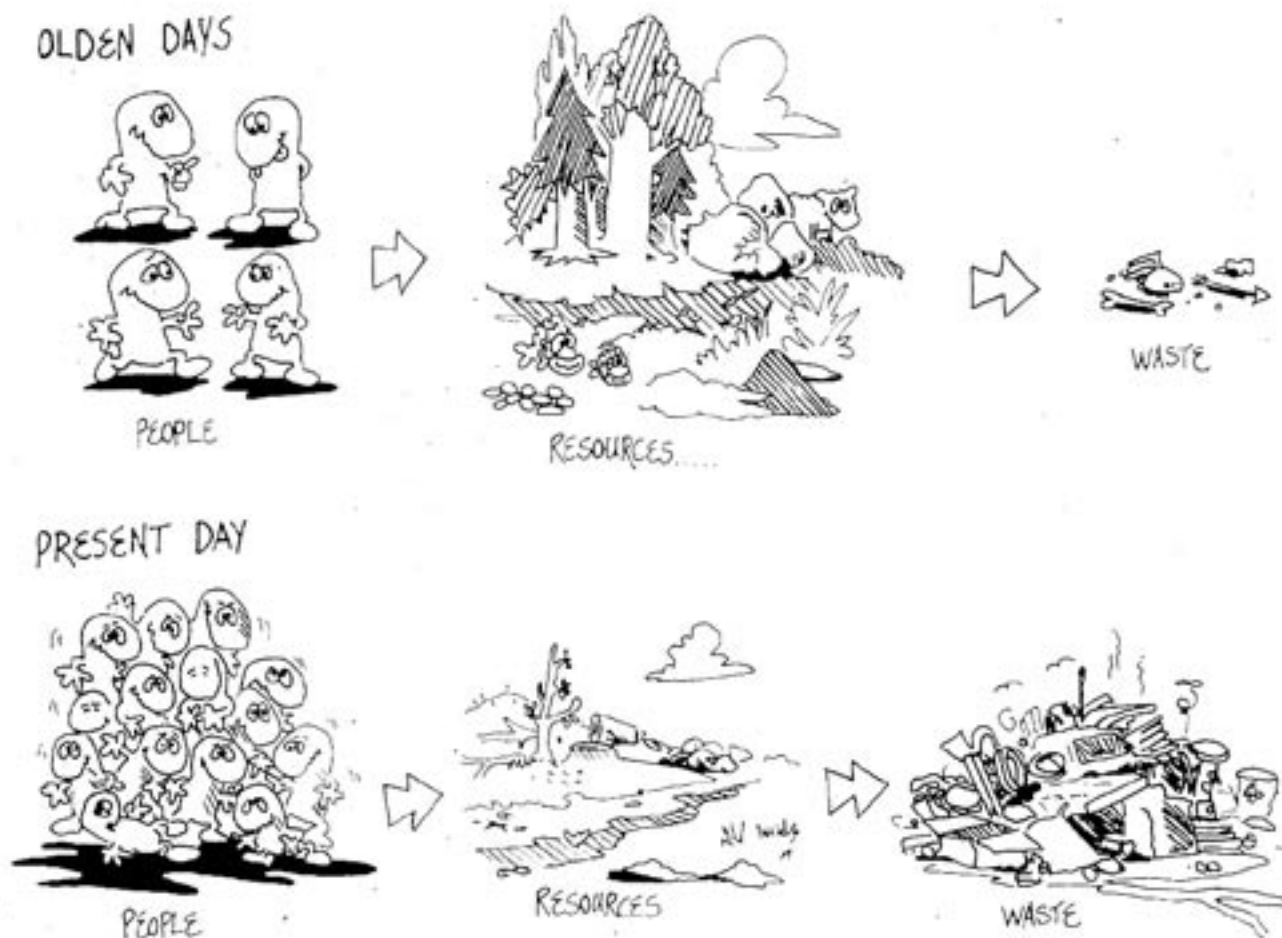
Some resources are renewable like the sun, but many such as petroleum upon which we rely heavily for energy, are non-renewable or finite. Once these finite resources are consumed, there will be no more supplies. Most of this resource use stems from people and industries in developed countries like New Zealand, Australia, the United States and Europe.

With resource use comes waste. Excess food, packaging, products and unwanted materials end up as waste in our landfills. In order to sustain our quality of life, we must conserve our resources through waste reduction, reuse and recycling. These methods of handling waste put less pressure on resource use.

# OUR WORLD ... OUR RESOURCES

The Earth's population is growing at a very fast rate. As we grow in terms of people, so too does our demand for resources. Humans are putting more and more demand on resources. Factors which contribute to this increased demand include land development, consumer habits, changes in standards of living, technological developments and industrial activities.

As we use up our resources, we produce waste. But humans have always used resources and consequently created some waste. What makes modern societies different from past generations is the way in which we use our resources. As little as 40 years ago resources were used conservatively with the intent to make them last for future generations. Today, we often use resources unwisely, creating unnecessary waste. This waste takes its toll on the environment.



In the past, communities had to be self-sufficient - producing their own food, shelter, transport and entertainment. Resources were conserved and used only when needed.

Today the majority of our populations live in industrial communities. Our basic needs of food, shelter, transport and entertainment come from a variety of places. We rely on a variety of resources from all over the world. Our resource needs are complex and so our long term damage to the environment is greater.

## RESOURCES

### Materials students may bring from home

egg  
fork  
plastic bags  
shoes  
scissors  
glass bottle  
clay  
3 cardboard boxes  
scrap paper  
envelopes  
pencils



# WORLD IN A JAR



## KEY CONCEPT

Water, sun, minerals, plants, people and animals, bacteria and rocks are all resources that make up the earth's ecosystem.

All elements of the ecosystem are dependent on each other.



## LEARNING OBJECTIVES

1. Students will create a natural ecosystem in the classroom that will provide a model of a balanced environment.
2. Students will be able to compare the properties of their own environment with the balanced ecosystem.



## MATERIALS

1. To make the jar ecosystem, you will need:
  - 2 litre glass jar (old preserving jar, or check with a recycling centre or restaurant)
  - Clean sand (if you are using beach sand, it is best to wash it about 5 times to ensure that it is salt free)
  - Bunch of oxygen weed (available at most pet shops)
  - Several (5) small aquatic snails (try pet shops)
  - Pair of guppies (available at most pet shops)
2. Photocopy Worksheets 1 and 2



## BACKGROUND INFORMATION

An ecosystem consists of all living things and their environment in an area of any size. All living things are linked together by energy and nutrient flow. All living things



are interconnected.

The self contained ecosystem is designed to simply display all the elements necessary for life: food, shelter, air and water.

The sand anchors the plants, stores nutrients and bacteria.

The aquatic snails graze on the oxygen weed. They will also eat any dead material, breaking down matter in the system. The snail waste products fertilise the plants.

The guppies are the consumers, they eat both animal and vegetable food. Guppies often eat each other, and guppies faeces fertilise the plants. Good plant growth gives each guppy a place to hide (shelter).

The oxygen weed plants provide food, absorb carbon dioxide and give off oxygen when there is sufficient light. When the plants were taken from the aquarium tank, they also had tiny single cell plants and animals living on them. These microscopic creatures become part of the food web in the jar.

If a guppy dies, do not take it out of the jar. Bacteria, snails and other guppies will soon strip the flesh from the bone the dead guppy becomes part of the jar ecosystem. If both guppies die, add new ones. Death is a natural part of the cycle, but life goes on.

The sun is what makes the system work. It drives photosynthesis, the food-making operation of the plants, and it affects the temperature and rate of gas exchange.



## LEARNING STEPS

1. Introduce materials: old fish tank or glass jar, sand, oxygen weed, snails, one pair of guppies.
2. Discuss with students what makes the ecosystem work - balance in the community among plants, animals, bacteria, and the interrelated physical and chemical environment.
3. In constructing the jar ecosystem, leave enough air at the top of the jar for the proper gas mixture - about 5 cm.  
**Put the jar in a bright area, but not directly in the sun.** You do not want the plants to grow too fast and outgrow the jar. If they do, just prune back.
4. How is the guppy ecosystem similar to the human ecosystem? Class can make comparisons eg jar - classroom - town - city - country - world.
5. The jar ecosystem should be monitored, each day.
6. Worksheets: Photocopy Worksheets 1 and 2 and distribute. (Note: not all the items belong in the jar, Students discuss those which are wrong)



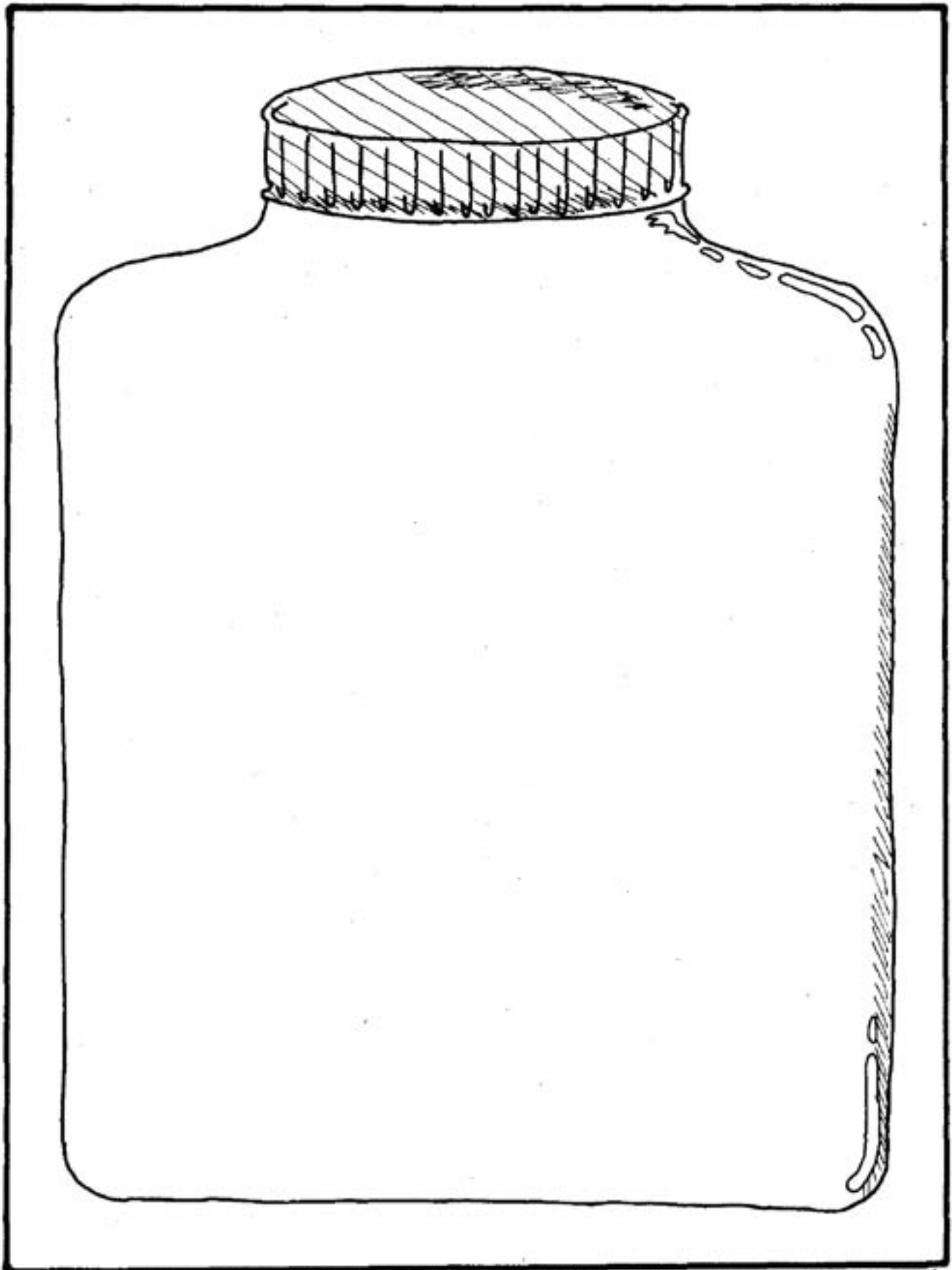
## EXTRA ACTIVITIES

### 1. An Ecosystem Walk

Take a walk around the school neighbourhood and have students identify the important components of the ecosystem they are walking through.

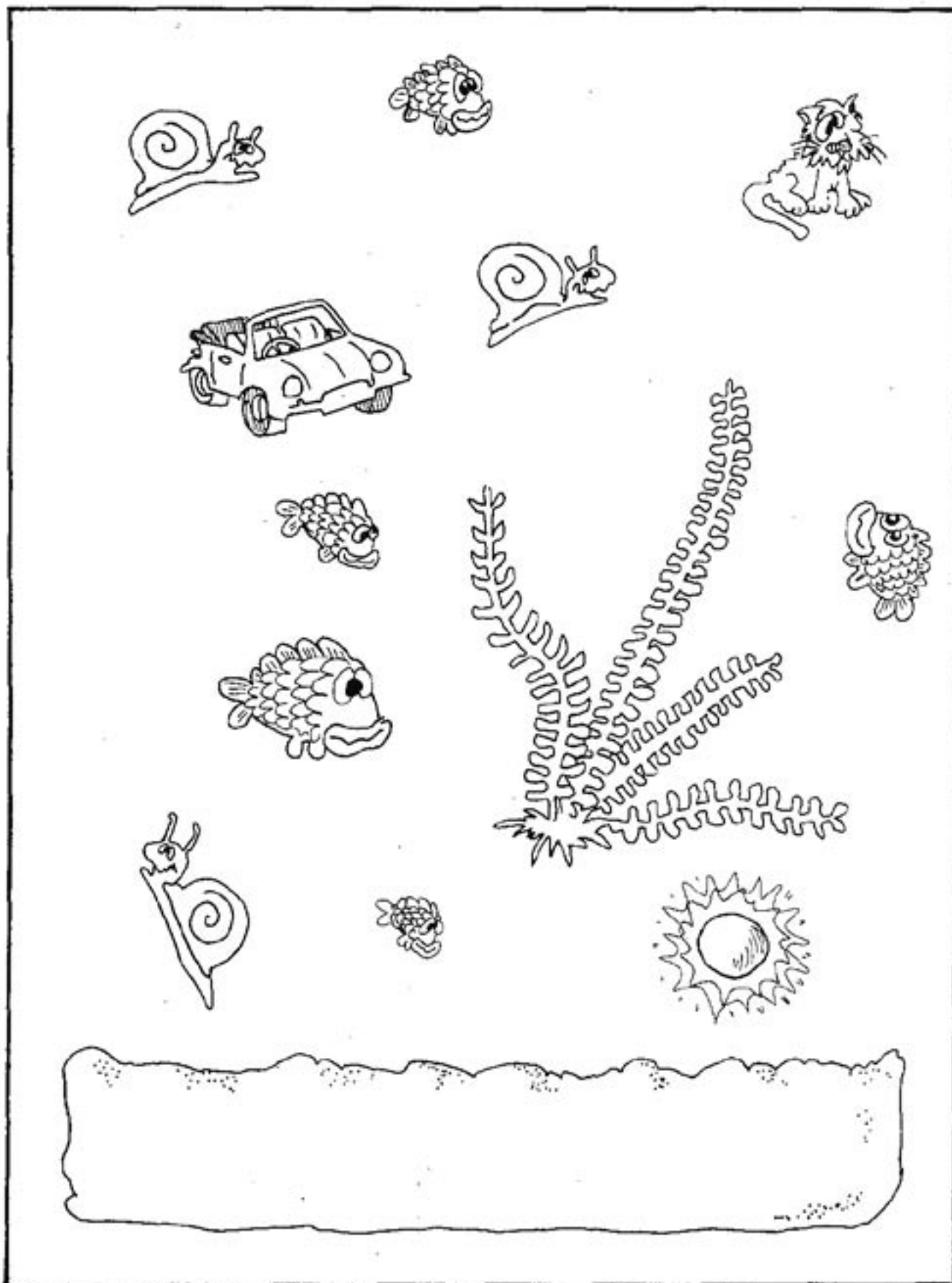
2. **Wrecked on an Uninhabited Island** A family are wrecked on a tropical island with only ten items washed up from their sunken yacht. Mast with sail, rope and wire, medicine chest, smashed radio, some fibreglass panels.... Complete the list and write a story or draw how the family could catch food, make shelter and clothing and secure their rescue! What resources could they use?

# WORKSHEET 1



TWO DIMENSIONAL REPRESENTATION OF ECOSYSTEM

# WORKSHEET 2




# ME AND MY WORLD

## KEY CONCEPT




Our home environment is an 'ecosystem'. Contributions from every member of the family are crucial for our ecosystem to survive.

## LEARNING OBJECTIVE




Students will understand the term 'ecosystem' in relation to their home environment.


## MATERIALS

- 
- Copies of the attached worksheets (worksheets 3 + 4 are optional. Students may draw themselves in their home environment)
  - glue and crayons

## BACKGROUND INFORMATION

- 
1. Each kind of living thing has special needs; it gets what it needs from the environment and interacts with many other living things.
  2. All living things live in a special place called a habitat, sharing the environment with other living things to form communities called ecosystems.
  3. Energy goes from the sun to green plants; animals get energy from eating plants and/or other animals.

## LEARNING STEPS

- 
1. Compare the ecosystem in a jar with the ecosystem in the home. ie the container: the house; (snails: rubbish collectors or family member; waste products: rubbish; plants: food etc) (see Lesson 1). In the jar ecosystem, the waste products are placed in a rubbish


bin and taken to a landfill. A more efficient waste management system at home requires composting the organic material and reusing and recycling the rest.

## DISCUSSION QUESTIONS

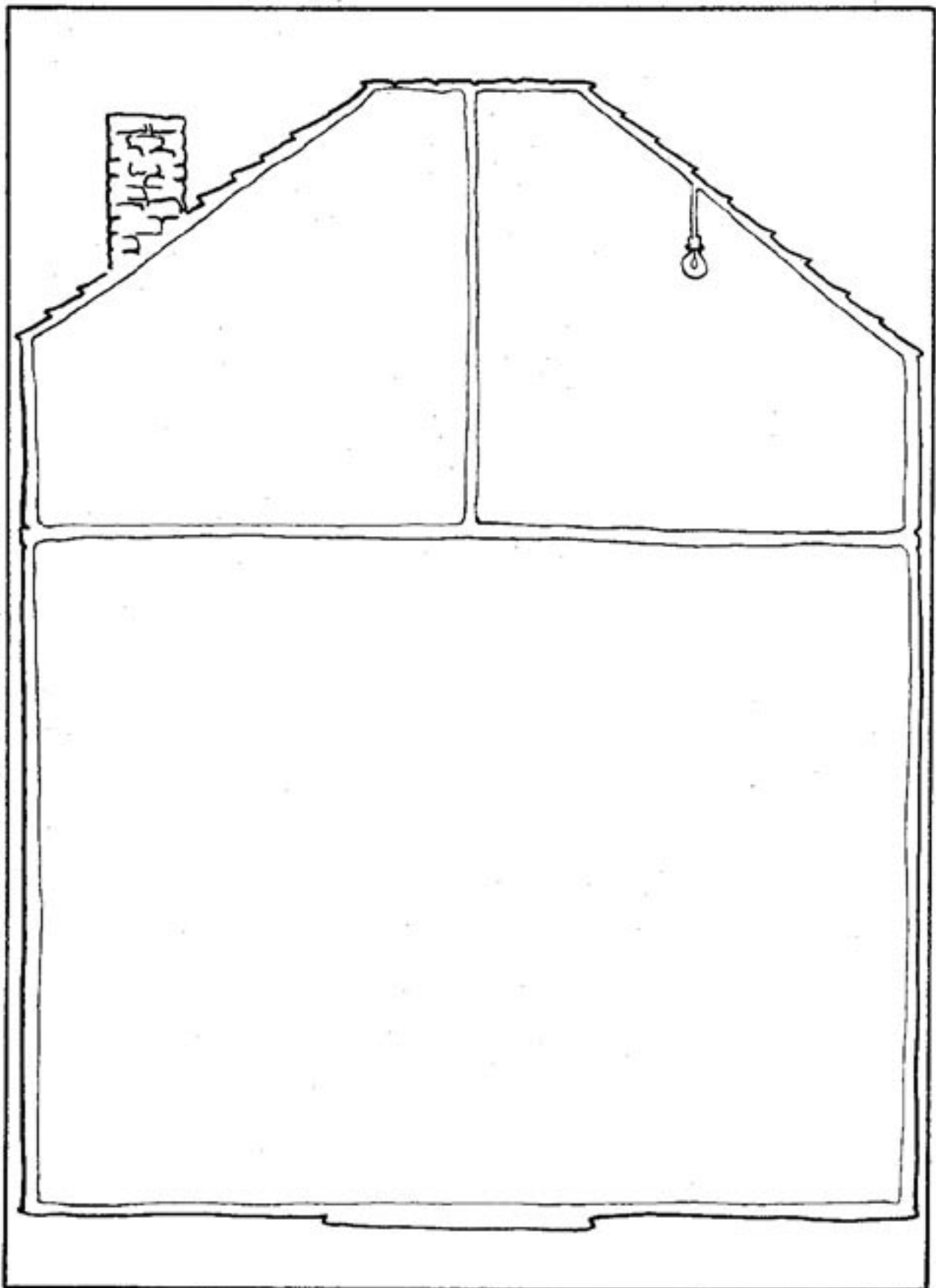
- a. What does the container provide for the guppies?
- b. What do the plants provide? What do the snails do?
- c. What would happen if one of the above elements were missing?
- d. Who provides the food in your home?
- e. Who cleans the house? (Students tell what each family member does, who empties the rubbish bin etc)
- f. What happens if someone doesn't do their job?

Worksheets are available to reinforce concepts.

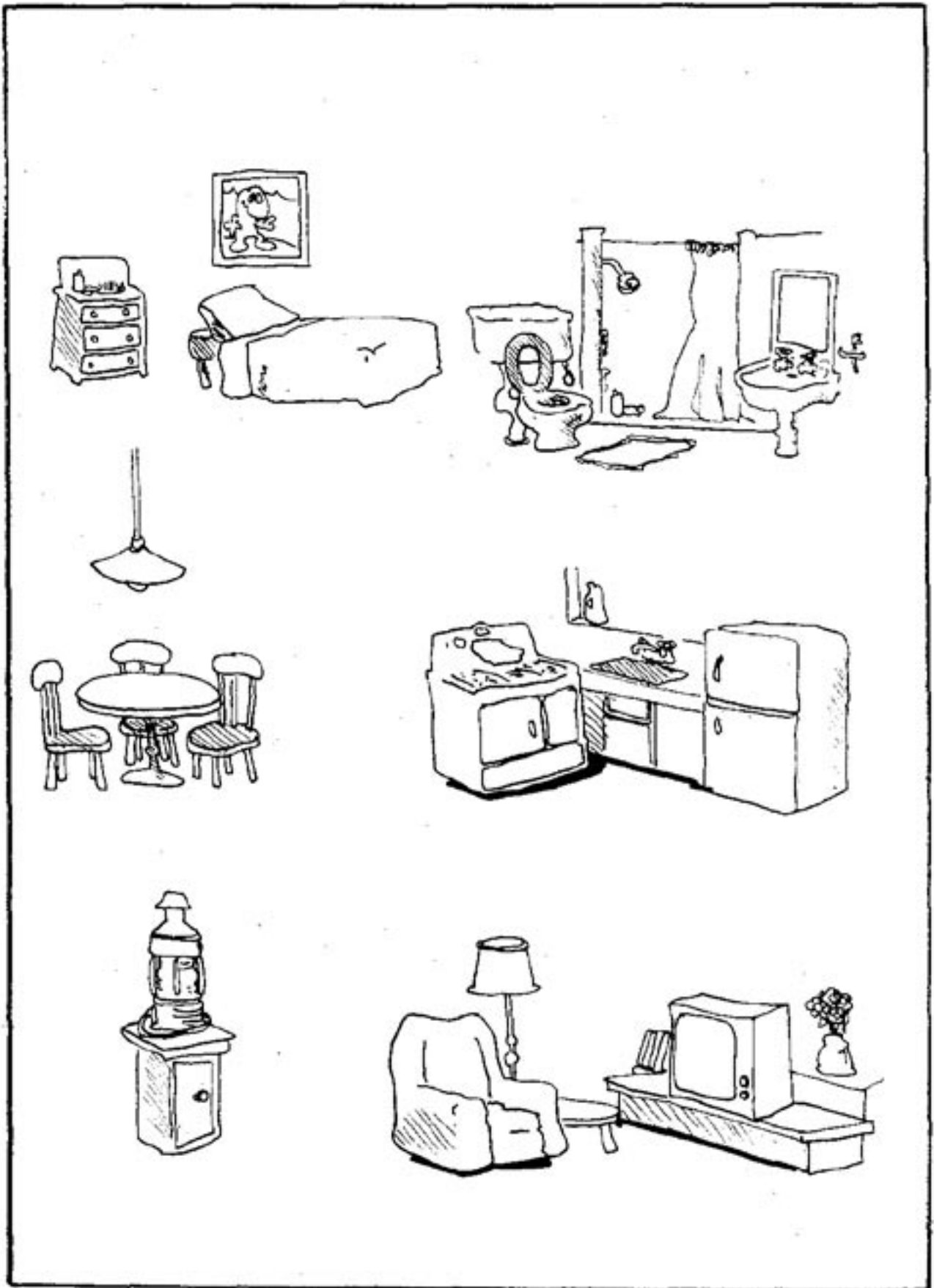
## EXTRA ACTIVITIES

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1. Home Ecosystem  
Give students a homework assignment the night before to draw a picture of their house or flat. This will help them to situate the items in their house diagram.
  2. All About Ecosystems  
Younger students draw a picture of their home environment ecosystem and will write a story with the teacher about what makes an ecosystem work. Older students draw and write their own stories describing their home ecosystems as they compare these with the ecosystem in a jar.

# WORKSHEET 3



# WORKSHEET 4



# PLANET EARTH

## Rich in Resources

### KEY CONCEPT

Everyday objects come from the earth's resources.

### LEARNING OBJECTIVE

To enable students to identify natural resources and understand the concepts of renewable and non-renewable, finite and infinite.

### MATERIALS

- egg
- fork
- plastic bags
- shoe
- scissors
- glass bottle
- worksheet 5 - Natural Resources questionnaire
- worksheet 6 - Everything Comes From The Earth

### BACKGROUND INFORMATION

The earth gives us the things we need for life. We have air to breathe, water to drink and soil to grow our food. These things, plus all the other materials that people consider are useful are called natural resources. Natural resources have taken billions of years to form on earth and human consumption is depleting these supplies rapidly - some resources are already scarce and others are expected to run out in the next century.

Natural resources are all the materials that form the earth. These were once part of rocks, oceans, animals or plants with which we share our planet.

Resources may be mined from the ground, harvested from the forests or fields or removed from the atmosphere or oceans. Oil, coal, precious metals, soils, water, air,

timber, rocks, and wildlife are all natural resources.

From these resources come industrial materials and other products that we use every day. Many of these materials and products are recoverable through reuse and recycling.

Minerals of many types are mined from the rocks and soils to produce useful metals and chemicals (such as steel, copper, aluminium, iron, gold, silver, lead and calcium).

Vegetation that grows in the soils and animals that eat the vegetation can also be considered natural resources. Oil, an important resource, is formed from ancient plants and animals.

Since all of these things come from the earth, they are all connected. What happens to one resource may affect some or all of the other resources. Depletion of natural resources has had a negative impact on the earth's environment. So we must take care of the earth.

### LEARNING STEPS

1. Discuss raw materials (natural resources from which useful products are originally made) that are found and used in the classroom (eg trees: paper, pencils, books; sand: glassware; mineral ores: pencil sharpener, plumbing fixtures, paper clips; oil: all plastics)
2. Show the egg to students and ask them to think about the natural resources used to create it. Help students to recognise that an egg comes from a chicken, the chicken eats grain, and grain is grown in the soil which is nourished by sunlight and water.
3. Show a fork to students. Everything we use comes from the earth, though we

may not recognise that by looking at the manufactured forms of certain items. In fact we spend a great deal of time and energy finding our natural resources and changing them to make them useful to us.

Example : in producing steel to make the fork, a large amount of iron sand containing a small amount of iron must be mined first. Energy-consuming machinery separates the iron from the sand, then the iron ore is purified with oxygen to make steel. The finished steel must be transported from the point of manufacture to the point of use.

4. Distribute Everything Comes From The Earth worksheet.



## EXTRA ACTIVITIES

1. Natural Resources Make....  
List a natural resource and build up a number of products made from it. i.e. timber - paper, cardboard, furniture, houses.
2. A Muddy Challenge  
Try making solar dried mud bricks. Experiment with different soils (about half clay is best), make moulds out of materials (eg milk cartons, or plastic milk container), use pine needles or straw for strength. Try different exposures to the sun, and finally test your bricks for strength.



# WORKSHEET 5

## Natural Resources Questionnaire

1. What is a natural resource?
  - a
  - b
  - c
2. Name 3 natural resources
3. Define renewable resource
4. Name 2 renewable resources
  - a
  - b
5. Define non-renewable resource
6. Name 2 non-renewable resources
  - a
  - b
7. Define conserve. Name a resource that we could conserve and tell how we could do it.
8. Where do natural resources come from?

# WORKSHEET 5

## Natural Resources Answer Page

1. What is a natural resource?

**A valuable naturally occurring material**

2. Name 3 natural resources

**possible answers could include air, soil, water, rocks, minerals, fossil fuels, plants and wildlife**

3. Define renewable resource

**a resource that can be replaced naturally, derived from an endless source**

4. Name 2 renewable resources

**a plants forms**

**b wildlife**

**other answers may include water, sun, waves, trees**

5. Define non-renewable resource

**a resource that occurs in a finite amount**

6. Name 2 non-renewable resources

**possible answers include fossil fuels, metals, minerals**

7. Define conserve. Name a resource that we could conserve and tell how we could do it.

**conserve means to use wisely.  
answers will vary**

8. Where do natural resources come from?

**the earth**

# EVERYTHING COMES FROM THE EARTH

**Soft drink can:** aluminium is made from a clay called bauxite, which is a non-renewable resource. Bauxite ore is mined in Australia and Brazil and shipped at great expense to its primary consumers, the United States and the Soviet Union. In the United States, aluminium is extracted from the bauxite. Thousands of kilowatt hours of electricity are expended in this extraction, and the process creates a significant amount of waste materials. For each ton of aluminium, four to five tons of water and rock are left over. One factory produces sheet aluminium, which is then shipped to another factory where soft drink cans are cut from the sheets.

**Cotton jeans:** balls of cotton grown on plants throughout the southern United States, and in several other parts of the world. The cotton must be picked, cleaned, carded, made into yarn or thread, woven into cloth, dyed the appropriate colour, cut and sewn into jeans, distributed to stores and sold. Cotton itself is a renewable resource, but a great deal of energy is expended to convert it into a pair of jeans.

**Wooden chair:** the chair is manufactured from trees that grow in the earth. Trees are a renewable resource.

**Glass bottle:** glass is made by melting silica, a fine, white sand, in combination with soda (sodium bicarbonate), or small pieces of old broken glass called cullet. Either soda ash or cullet will help the silica melt faster, lime (calcium carbonate) is sometimes added also. The silica melts in a furnace at temperatures above 1426°C. Silica is a non-renewable resource.

**Plastic bag:** most modern plastics have petroleum, a non-renewable resource, as their primary raw material, but plastics are made from innumerable other materials, as well. The earliest plastics were made from cellulose, a plant fibre, which is still the basis for film, audio and video tape. Plastic bags and playing records are derived from a mixture of petroleum and chlorine.

**Newspaper:** paper is made from wood, and trees are a renewable resource.



The basic ingredient of paper is wood pulp, soft wood broken down either by chemical process or by grinding until the cellulose fibres separate. Chemically produced pulp is made into good quality writing paper; ground wood is used for newsprint. The pulp is washed and screened, then mixed with water in a beater. During the beating process, coloured dyes or chemical sizing may be added. The mixture is then screened and shaken to remove the water, pressed and dried over a series of hot cylinders, and wound into a roll of paper.

**Leather shoes:** real leather is made from the skin of animals that eat grasses that grow in the soil. Animals represent a renewable resource. Many modern items that appear to be made of leather are actually vinyl, which is a kind of plastic.

**Hamburger:** the meat is beef, which comes from beef cattle. The bun is made from grains that grow in the ground. Cattle feed is grass from the earth. The cattle, grains and grass are renewable resources.

**Steel scissors:** steel is the most commonly used metal in the world. It is made from three principal raw materials - iron ore, limestone and coal. The special low-sulphur coals are converted into coke ovens, and the gas released is used in the processes within the works. The coke is then used in the production of iron. Iron is made in a blast furnace. Impurities in the ore melt into the limestone to make slag (a raw material for cement). The coke reacts chemically, reducing the ore to iron. The molten iron from the blast furnace is then further refined to make steel. This is done in the basic oxygen furnace. As much as 25% of all the material which is charged into the steel-making furnace is scrap metal.

**Bread:** a loaf of bread is made mostly of wheat grains. These grains grow in the ground. Other ingredients that come straight from the earth are water and salt.

**Crayon:** crayons are made from wax which comes from bees or from chalk which is made from limestone.

**Flax basket:** these are made from the fibres of flax plants, a renewable resource.

**Wool jumper:** made from fibres of sheep or goat hair. These animals feed on grass grown in the earth.

**Tyre:** most tyres are made from rubber, which is extracted from the rubber plant.

**Clay pot:** made from clay, an earthy material.

**Butter:** butter is made from cow's milk and salt. Cattle eat grass from the earth.

# WORKSHEET 6

## Everything Comes From The Earth ...But Where?

Try to trace each of the following items back to their original source, the earth. (The sun's energy, of course, is important in all of these). For example the egg you had for breakfast came from a chicken, which ate grains, which grew from the earth, so:

**egg - chicken - grains - earth**

Aluminium can

Plastic bag

Butter

Leather shoes

Glass bottle

Wooden chair

Cotton jeans

Steel scissors

Hamburger

Newspaper

Bread

Flax basket

Wool jumper

Tyre

Clay pot

Crayon

Can you name one thing that does not come from the earth?

# WORKSHEET 6

## Everything Comes From The Earth ...But Where? Answer page

Aluminium can

**can - sheet - aluminium - bauxite - earth**

Plastic bag

**plastic - petroleum - earth**

Butter

**cream - milk - cow - grass - earth**

Leather shoes

**shoes - leather - cow/pig - grass - earth**

Glass bottle

**glass - silica/sand - earth**

Wooden chair

**chair - timber - tree - earth**

Cotton jeans

**jeans - thread - cotton plant - earth**

Steel scissors

**scissors - steel - iron ore - earth**

Hamburger

**bun - grains - earth; meat - cow - grass - earth**

Newspaper

**paper - wood - tree - earth**

Bread

**grain - earth, water - earth, salt - earth**

Flax basket

**flax fibres - flax plant - earth**

Wool jumper

**wool yarn - sheet/goat hair - grass - earth**

Tyre

**rubber - rubber plant - earth**

Clay pot

**clay - earth**

Crayon

**wax/chalk - earth**

Can you name one thing that does not come from the earth?

**No**

# RUNNING OUT OF RESOURCES?

## To renew or not to renew...

### KEY CONCEPT

In our consumer society, we use many of the earth's resources.

### LEARNING OBJECTIVE

Students learn how natural resources are used and will understand the difference between finite and infinite resources.

### MATERIALS

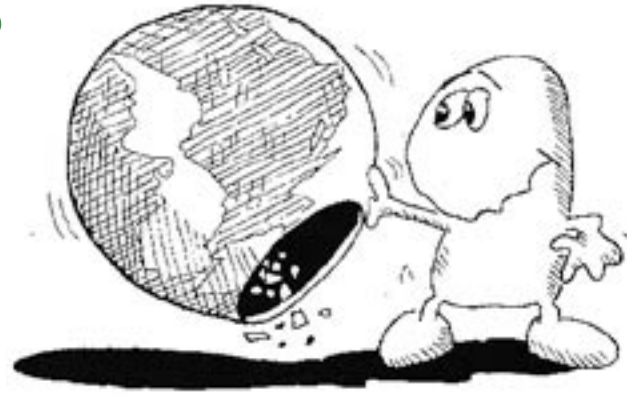
- worksheet 7 - Running Out of Resources
- Clay (one small piece per student)
- 3 cardboard boxes

### BACKGROUND INFORMATION

People are putting increasing demands on the earth's resources in many ways - the need for more food puts pressure on the land and fishing resources, power, fuel and building resources are over-used, our technology demands all sorts of new raw materials, even space for living can be in short supply.

A natural resource is a valuable naturally occurring material. Renewable resources are those that can be replaced naturally, derived from an endless source, such as plants, wildlife, and sun. Non-renewable resources such as fossil fuels, minerals, and metals. Once used, these resources cannot be replaced.

Demand on our natural resources has grown significantly, due to the world's population increases.



### LEARNING STEPS

1. Pass out clay from a container labelled 'Earth's Resources', explaining that this is an example of one of the earth's resources. Make models of things using the clay.
2. Discuss how we dispose of rubbish at home and at school. Write the words Bury, Burn, and Throw Away on the cardboard boxes. Students place their clay product in one of the three boxes. Discuss what would theoretically happen to each piece of clay if it is buried, burned or thrown away.
3. After we bury, burn or throw away these objects, what will happen to these things?
4. Repeat the activity several times, putting more clay items (earth's resources) into the boxes to show that as we buy and use products, we use up the supply of the earth's materials.
5. When there is no more clay, the resource container is now empty and so all the resources have been used up.
6. Discuss the concepts of finite (non-renewable) vs infinite (renewable) resources, thinking of examples of each. Some infinite resources are solar energy, timber, wind and hydroelectricity. Some finite resources are petroleum, tin, aluminium, coal and natural gas.
7. Photocopy Worksheet 7. Are the items on the worksheet renewable or non-

renewable resources? What other items do we use, where do they come from, how can we conserve them?

8. Students can survey different items in the classroom and identify what natural resources were used to make them. Are they renewable or non-renewable? Are more items made from renewable or non-renewable resources?

Notice how heavy the boxes are, someone will have to take them to the landfill or school incinerator, where they will take up room and may contribute to pollution. Fortunately, the clay is still a valuable material that can be used.

9. Can we ever get back the things we throw away? Which ones?

What is going to happen if we keep taking materials from the earth? What will happen when we run out?

10. Instead of burying, burning or throwing the clay away the children could reuse it. Even burning (incineration) of waste can generate heat, which can be used in creating energy, thereby saving precious fuels, such as oil and coal.

11. If we reuse the clay, we can make other items from it.

2. Own Impressions  
Resources, land, earth, water, sun, air, minerals... Create highly descriptive stories and/or pictures of what you want the world to look like when you are twenty, fifty or eighty! What kinds of resources do you use?

3. How Does Industry Use Resources?  
Take an excursion to a business, such as a manufacturer. Find out how it uses resources. Are they finite or infinite resources? Do they recycle or reuse waste? Think of ways businesses could reduce, reuse and recycle what they make.

## EXTRA ACTIVITIES

1. A Resource Game

Gather a collection of various beads. The beads represent current supplies of non-renewable natural resources. Divide the class into small groups. Equally distribute the beads to the groups.

Students divide the resources into generations, that is some for them, some for their children and some for their grandchildren.

How many resources went into each category? Who has the most? least? How does this activity relate to the way people consume and conserve resources today for future generations to use?



# WORKSHEET 7

## RUNNING OUT OF RESOURCES?

Some resources come from plants and animals which grow and reproduce. These resources can slowly be replaced if we use them wisely and plan ahead for the future. If we cut down a tree to make timber, paper, or cardboard, we can plant a new tree. Since more trees can be grown, trees are called a renewable resource. Plants, animals and other things which can be replaced are all renewable.

But there are some resources which cannot be replaced. The earth has only a limited amount of them and once they are gone there will be no more. These resources are non-renewable. We can't grow or make new copper or other precious metals. And when the last oil well runs dry, there will be no more oil for heat, for cars or for use in the many plastic products which are now part of our lives. In addition to minerals and fossil fuels, water and air are also non-renewable.

### Directions:

Identify the resource which is used to make each of the items listed below. For example, cardboard boxes are made from trees. In addition, think about whether that resource can grow or be replaced so that we will have more. Mark an "R" next to those items that come from a renewable resource, such as cardboard boxes. Place an "NR" next to those items which are made from sources that cannot be replaced. They are non-renewable.

cardboard box

steel bucket

copper pipe

book

leather jacket

wooden desk

cotton shirt

polyester shirt

flour

balloon

aluminium pan

drinking glass

steak

corn cob

wool jumper

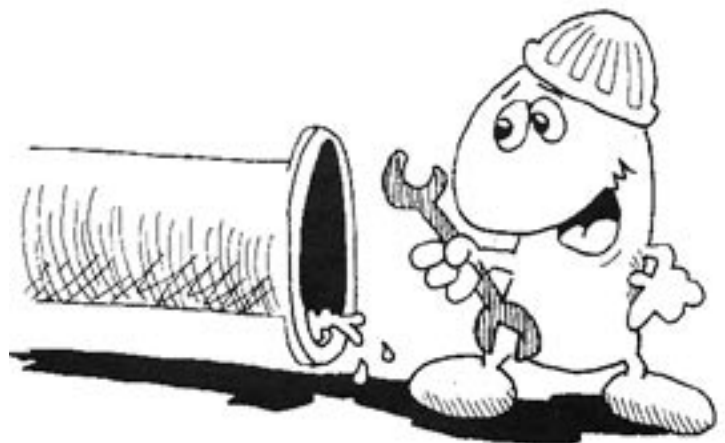
tyre

diamond

plastic rubbish bin

pencil

paper towel



# NEEDS + WANTS

## Resource Use: Consume/Conserve



### KEY CONCEPT

Many of the items we use in our daily life are luxuries, not necessities.

### LEARNING OBJECTIVE

Students will be able to distinguish between personal wants and needs.

### MATERIALS

- scissors
- worksheet 8 - Needs and Wants
- worksheet 9 - Consume/Conserve
- scrap paper
- pencils
- envelopes for each pair of students

### BACKGROUND INFORMATION

'Needs' and 'Wants' differ from culture to culture. For example, New Zealand views cars as a need, but millions of people in developing nations live productive lives without cars. Also, radio and television may be a necessity to the average New Zealander, but may be a real luxury to someone in another country.

In this activity, students will think about their own needs and wants. Each student may have different views. No answer is necessarily right or wrong. The purpose of the activity is to let students explore those things that they must have to live and those things which are extras.

2. Divide students into groups of 2. Give each group an envelope with the cards. Separate the cards into groups so that they have something in common. Share results with the class. Try sorting several different ways.
3. Sort the cards according to needs and wants. Each group can discuss their needs and wants. List some of their answers on the blackboard.
4. What are our basic needs? That is what are the things we need to live?
5. Look at the remaining cards. 'Wants' make life easier and more enjoyable. Could these things be used less often? What are ways to conserve these things?
6. What is the difference between 'consume' and 'conserve'. Consumer products are things we consume. They are designed either for one use or for repeated uses. Could alternative products be used to conserve more of our natural resources? After discussion, complete Worksheet 9 in small groups or as a class with your assistance. Report findings to the whole class.

### LEARNING STEPS

1. Make copies of Worksheet 8 for every 2 students. Cut the cards along the dotted lines and place each set of cards into an envelope.

# WORKSHEET 8



MILK



LOLIPPS



HOUSE

AIR



EXERCISE



MEDICINE



COMPUTER



CAR



EGGS



RAIN



GRASS



INSECTS

ssh

QUIET



TELEVISION



PARENTS



FRUIT



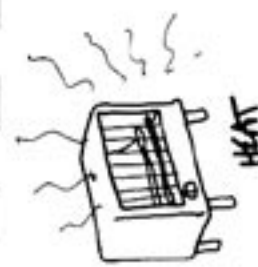
BICYCLE



VEGETABLES



MONEY



HEAT



WATER



CLOTHING



ELECTRICITY

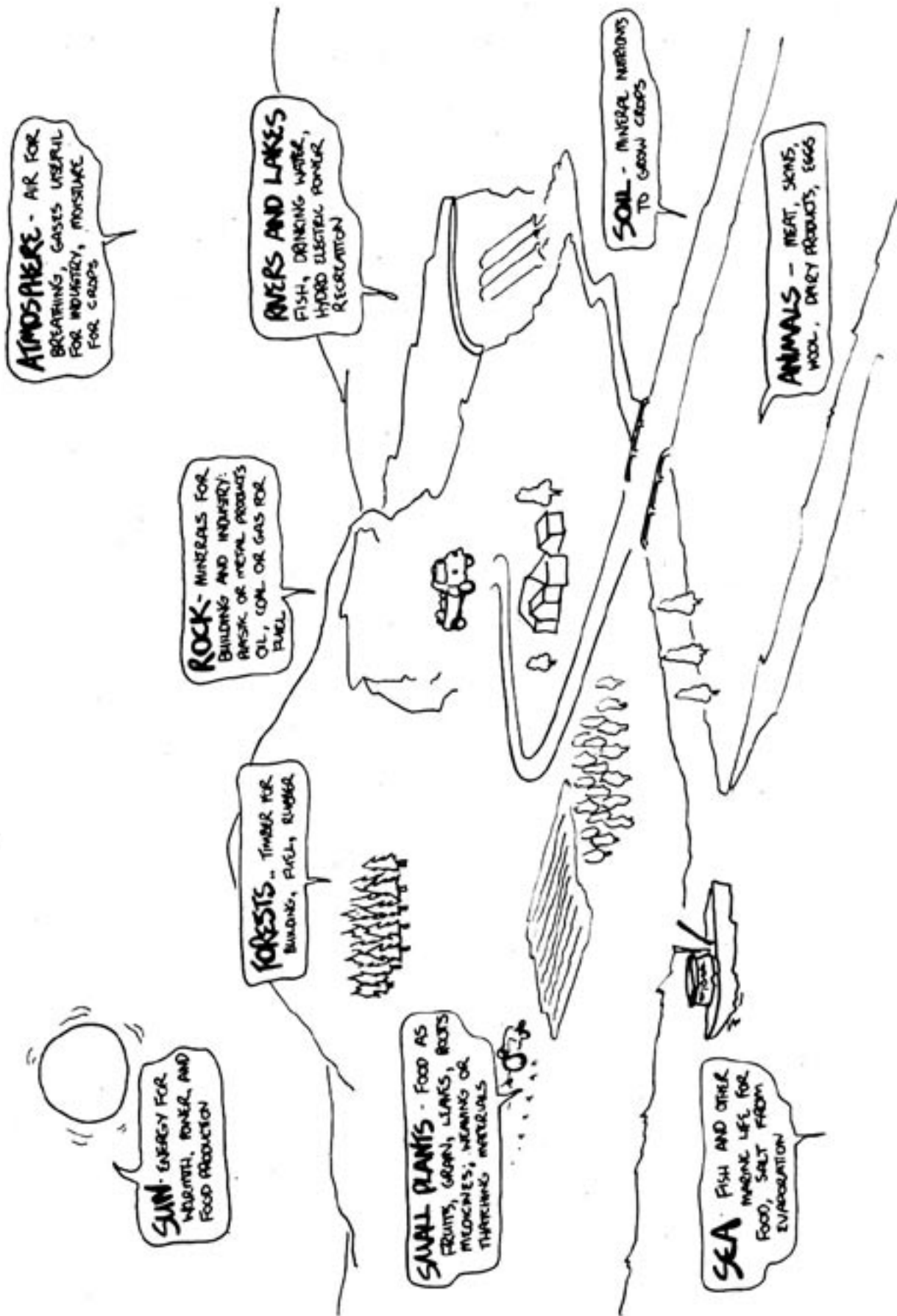


FRIENDS



SUN

# Discussion Sheet: photocopy + distribute for class discussion



# WORKSHEET 9

## CONSUME/CONSERVE

### The Choice Is Yours!



You are a CONSUMER! Consume is a verb that means 'to do away with completely'. When you consume something you use it up, eat it, wear it out or finish it. In your lifetime, you have consumed hundreds of marmite sandwiches or peanut butter sandwiches, litres of water and dozens of socks.

List some things that you personally consume in only one use (for example, your box of juice at lunch or a piece of paper you've drawn a picture on)

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List some things that are used many times before they are consumed (such as your shoes, or a colouring book)

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You can CONSERVE. Conserve means to preserve, keep safe, or use wisely. You are a conserver when you are not wasteful.

List some things that are made to be used only once and then thrown away.

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Look at your list. Suggest some other products or uses that might do the same job while conserving our resources.

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Are there some changes that YOU could make in your daily life that would conserve our resources? List them!

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# **CONSUME/CONSERVE : The Choice Is Yours!**

## **Answer Page**

List some things that you personally consume in only one use (for example, your box of juice at lunch or a piece of paper you've drawn a picture on)

**paper products, food, toothpaste, electricity, plastic lunch wrap**

List some things that are used many times before they are consumed (such as your shoes, or a colouring book)

**toothbrush, hairbrush, clothing, television, games, furniture, telephone, school bags**

List some things that are made to be used only once and then thrown away

**paper towels, fizzy drink bottle, paper serviettes, plastic cutlery, newspapers, disposable nappies**

Look at your list. Suggest some other products or uses that might do the same job while conserving our resources.

**cloth towels, recycled containers, cloth serviettes, less packaged goods, china, cloth nappies, rubbish bins**

Are there some changes that YOU could make in your daily life that would conserve our resources? List them!

**recycle aluminium cans, newspapers, glass and plastic bottles; use plastic lunch boxes, encourage parents to re-use shopping bags at the supermarket; always turn the water off when you brush your teeth**