



# Nelson International Science

## Workbook 1



Anthony Russell

OXFORD





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# Contents

<b>1 Plants</b>	<b>3</b>	<b>2 Humans and animals</b>	<b>35</b>
Living things	3	We are all different – and the same	35
Activity 1	3	Activity 1	35
Activity 2	5	Body parts	38
Things that have never lived	7	Activity 2	38
Activity 3	7	Activity 3	39
Plants and animals in their environments	10	Activity 4	41
Activity 4	10	Health and diet	43
The parts of a plant	18	Activity 5	43
Activity 5	19	Activity 6	44
What plants need to grow	22	Senses	46
Activity 6	22	Activity 7	46
Growing plants from seeds	26	Activity 8	47
Activity 7	26	Activity 9	49
Activity A	31	Parents and children	53
Activity B	33	Activity 10	53
		Activity 11	55
		Activity C	57
		Activity D	58

# Contents

## **3** Material properties 60

What are things made of? 60

Activity 1 60

Materials and their properties 62

Activity 2 62

Naming materials 64

Activity 3 65

Sorting materials 67

Activity 4 67

Activity E 69

Activity F 70

## **4** Forces 72

Movement 72

Activity 1 72

Pushes and pulls 78

Activity 2 80

Changes in movement 81

Activity 3 81

Activity G 83

Activity H 84

## **5** Sound 85

Sources of sound 85

Activity 1 85

Sound and distance 87

Activity 2 87

Hearing sounds 89

Activity 3 89

Activity I 92

Activity J 94

## Introduction

*Nelson International Science Workbook 1* provides a complete copy of the *Student Book* activities for all learners to work through.

The activities are marked with  showing the corresponding page number in the *Student Book*.

In addition to the *Student Book* activities, there are extra activities marked, for example, Activity A, that can be done in the classroom or as homework at home. They support the knowledge and understanding gained in the *Student Book* activities.

# Chapter 1: Plants

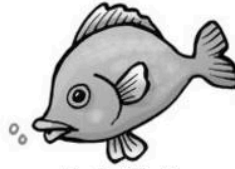
## Living things



(a) grains



(b) tree



(c) fish



(d) bird



(e) leaf



(f) maize



(g) tooth



(h) fruit



(i) shell



(j) insect



(k) animal breaking out of shell



(l) bone



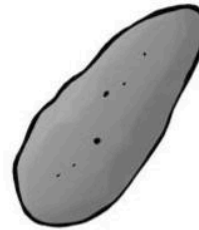
(m) earthworm



(n) dog



(o) flower



(p) sweet potato



(q) bird's egg

### Activity 1

You will need: a pen or pencil.



**1** Look at the pictures.

## Activity 1 (continued)

**2** Sort the things into two groups – a plant group and an animal group.



**3** Write down the letters of five of the things in each group (record your answers).

Find five plants:

**Plant group**

--	--	--	--	--

Find five animals:

**Animal group**

--	--	--	--	--



**4** Share your answers (communicate) with the class.





## Activity 2 5

**You will need:** a pen or pencil.



**1** Look at the pictures of the animal and the plant.

**2** How are they different? Find three things.

*Difference 1* \_\_\_\_\_

*Difference 2* \_\_\_\_\_

*Difference 3* \_\_\_\_\_

How are they the same? Find three things.

*Similarity 1* \_\_\_\_\_

*Similarity 2* \_\_\_\_\_

*Similarity 3* \_\_\_\_\_

## Activity 2 (*continued*) 5



**3** Talk about your ideas with your group.

**4** Tell the class what differences your group has found.



## Activity 3 8

**You will need:** an area outside where you can explore things and a pen or pencil.



(a)



(b)



(c)



(d)



(e)



(f)



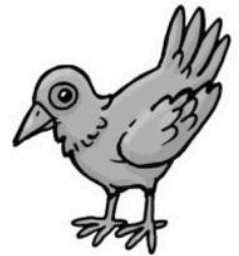
(g)



(h)



(i)



(j)



(k)



(l)



(m)



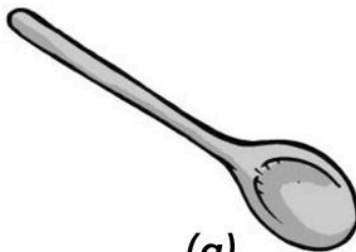
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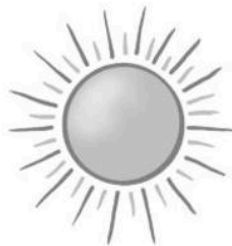
(o)



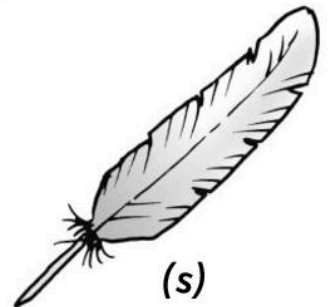
(p)



(q)



(r)



(s)

## Activity 3 (continued) 9

-  **1** In your class, get into small groups.  
Look at the pictures on page 7.  
Sort the things into three groups:

**Living things**  
**Things that were once alive**  
**Things that have never lived**



**2**

**Living things**

**Things that were once alive**

**Things that have never lived**

Write down the letters of the things in the correct group.

### Activity 3 (continued) 9



**3** Go outside. Can you find one living thing and one non-living thing?

*I found a living thing called a*

---

*I found a non-living thing called a*

---

**4** Back in class, put the things you have found in their groups.

Let the class see what you have done.



**5** Look at the groups made by others in the class.



## Activity 4 12

**You will need:** an area outside where you can explore and a pen or pencil.

In this activity you will explore a local environment in a small group.

**1** Choose where the environment will be.

- It can be in a field.
- It can be on the sunny side of the school, or on the shady side of the school.
- It can be in a pond or on a beach.

These are just some examples.

We chose the \_\_\_\_\_



**2** Choose what you will observe. Will it be:

**the plants   animals   the soil   the water  
the sunlight?**

We chose the \_\_\_\_\_

**Activity 4 (continued)**  13

- 3** Make a plan with your group to explore this local environment.

	<b>Plan</b>
<i>First we</i>	
<i>Then we</i>	
<i>Next we</i>	

- 4** Show the group's plan to your teacher.

## Activity 4 (continued) 13

- 5** If you need to collect plants and animals, you must choose what to use. It could be:



*a bag*



*a cardboard box*



*a jug*



*a bucket*



*a glass jar*



*your hands*

Be careful when picking flowers or touching animals. Some plants and animals are dangerous. Your teacher will suggest good ones to choose.



**Activity 4 (continued)**  14

**6** Think of how to use your senses.

**a** What can you smell? 

*I can smell* \_\_\_\_\_

\_\_\_\_\_

**b** What can you feel? 

*I can feel* \_\_\_\_\_

\_\_\_\_\_

**c** What can you hear? 

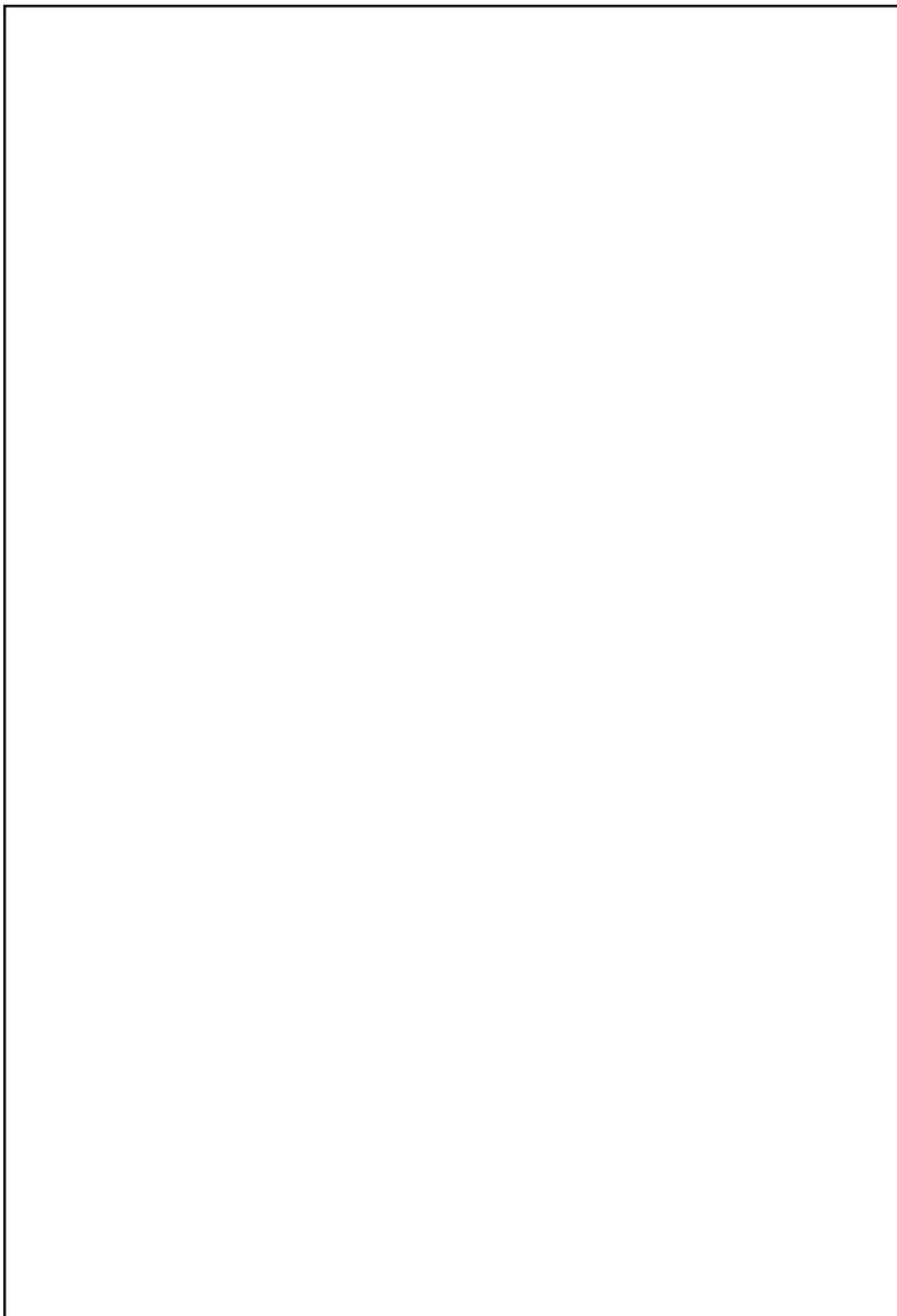
*I can hear* \_\_\_\_\_

\_\_\_\_\_

## Activity 4 (continued) 14

- 7** Choose how you will **record** what you observe and collect.
- 8** Work as a group. Share out the tasks.
  - a** Collect all the evidence you can about the plants and animals in the environment you have chosen. Use the box below to record it.
  - b** Decide how to show (display) what you have found out.
  - c** Add the name of the environment that you explored to your display.

## Activity 4 (continued) 15



## Activity 4 (continued) 15 – 16

- 9** What will you see when you look at what the other groups found?

Tell your teacher what you think (predict) you will see.

*I think I will see*

- 10** Move round the class. What has everyone else found?

Is it what you predicted? Circle your answer.

Yes

No



Look at the three environments shown in the pictures above.

What can you see that is different in each environment?



Tell the class. Try to explain why some things are different.

What can you see that is the same in each environment?

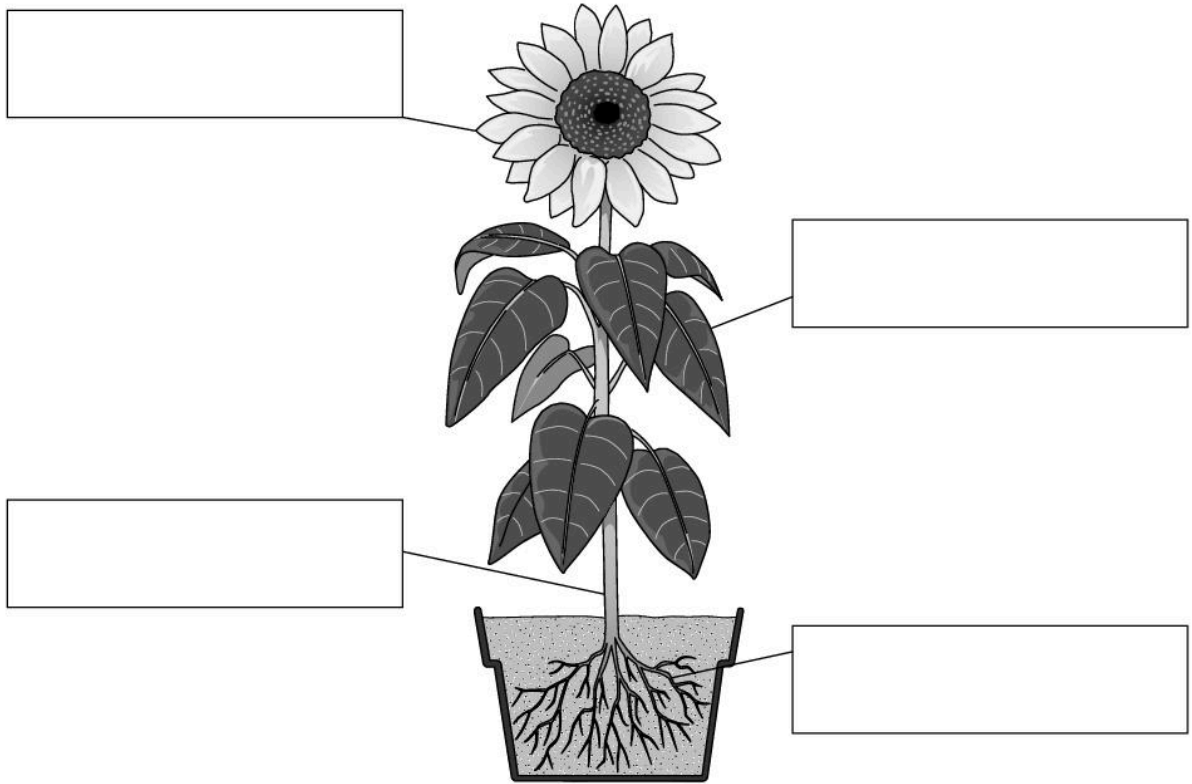


Tell the class. Try to explain the similarities.





## The parts of a plant

18



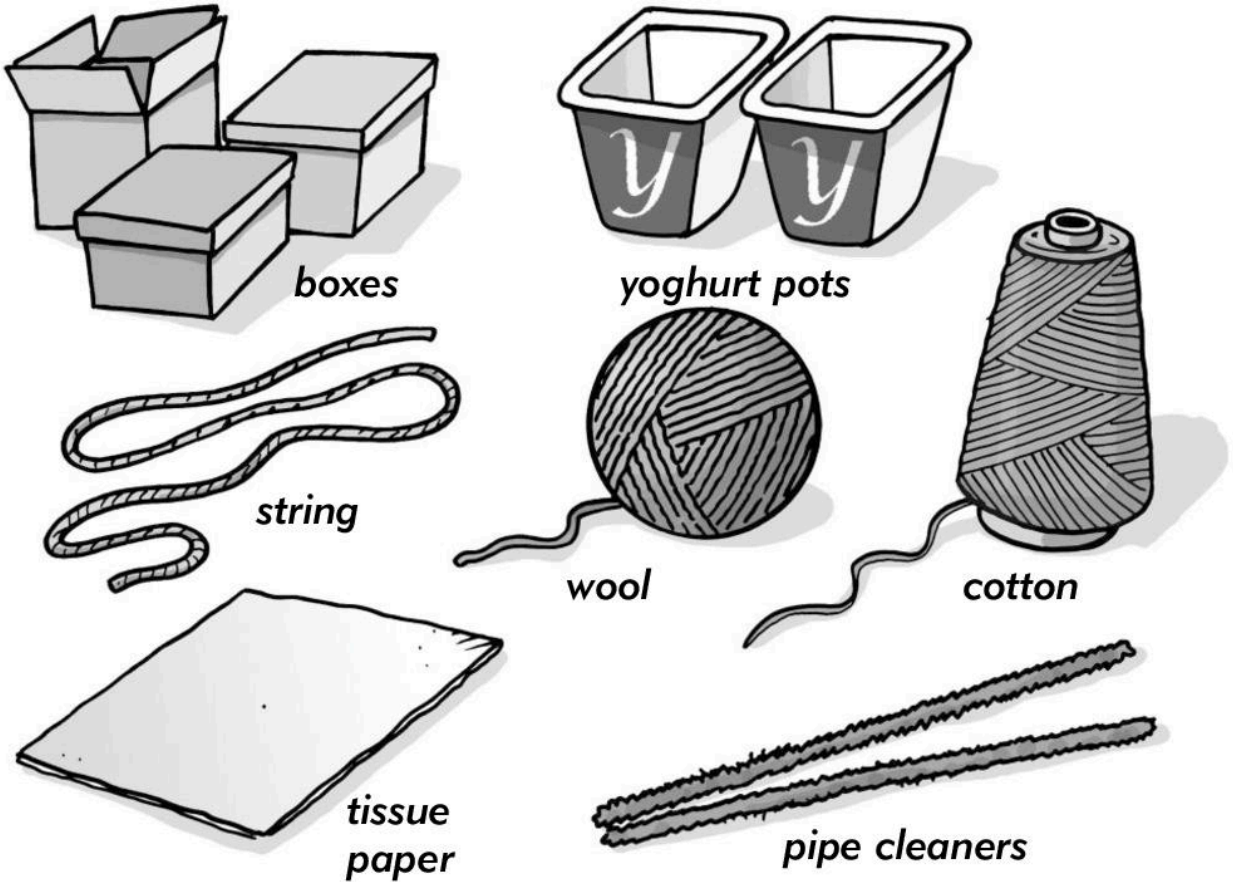
**stem root flower leaf**


Here is a picture of a plant.

-  Write the name of each part in the right box.  
Choose from the list of words.
-  Share your answers with the class.

## Activity 5 19

**You will need:** some things to make models with and a pen or pencil.



-  **1** Go outside and find a small plant. Try to find one with flowers.

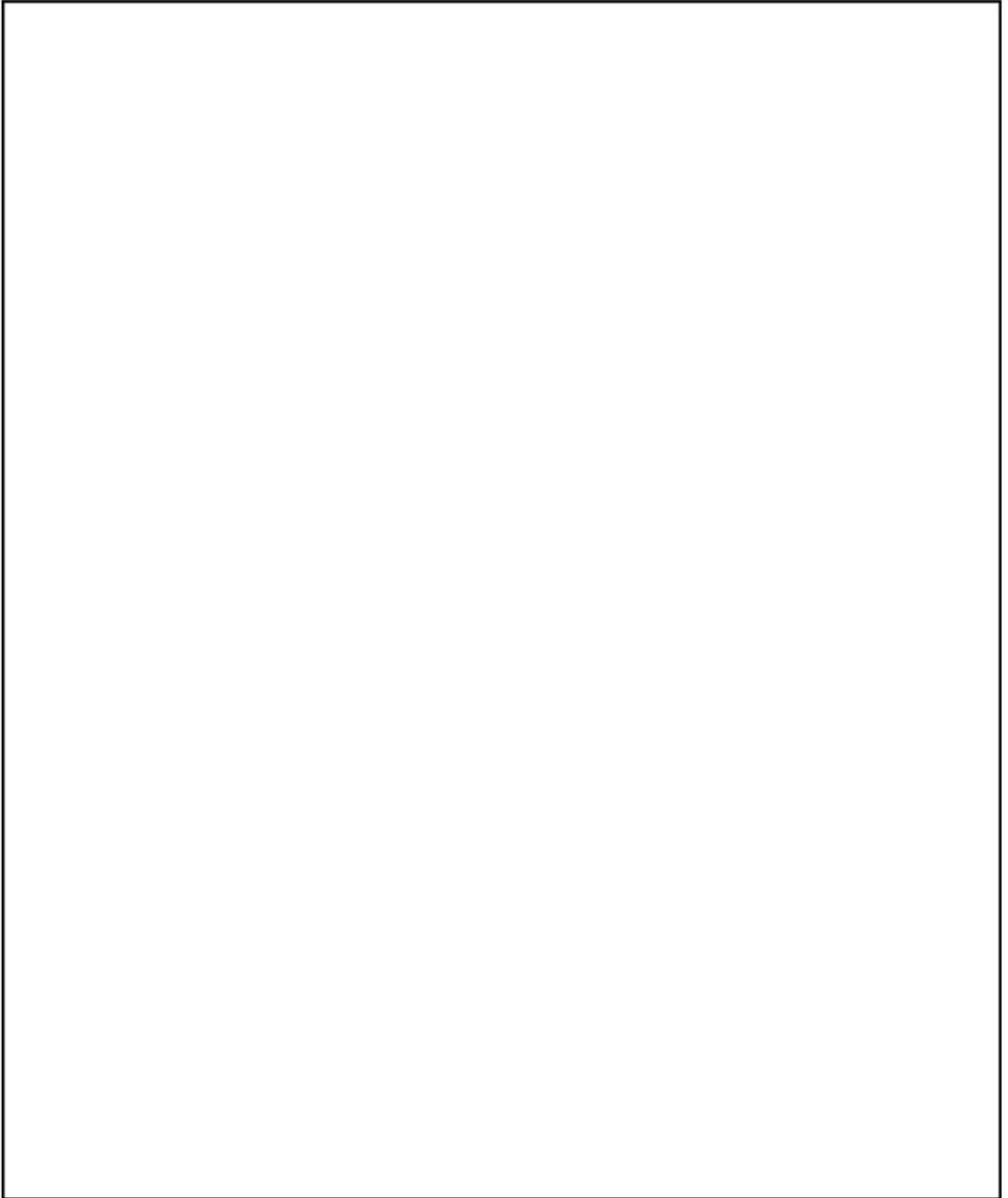
Be careful when picking flowers as some can be poisonous. Your teacher will suggest good ones to choose.

- 2** Dig it up with care and take it to class.

## Activity 5 (continued) 20



**3** Draw a picture of the plant.



Name each of the parts you can see.

Write the names on the drawing.



## Activity 5 (continued) 20



**4** Observe the plant closely.

- a** Look at how the parts are fitted together.
- b** Tell the class what you have observed.

Use these words to complete the sentences below.

**roots stem leaves**

The \_\_\_\_\_ are in the soil.

The \_\_\_\_\_ is joined to the roots.

The \_\_\_\_\_ grow from the stem.

**5** Make a model of a plant.

Choose what you will use to make the stem, the roots, the leaves, and the flowers.

**6** Display your model. Now look at those made by others.




## What plants need to grow

### Activity 6 24

**You will need:** a pen or pencil.

The class will do an investigation to find out:  
'What are two of the things plants need to grow?'

-  **1** Talk to your group about how you can find an answer to this question.
- 2** Share your ideas with the class.  
Write them down here:

**Activity 6 (continued)**  24

- 3** Plan the part of the investigation that your group will do.
  - a** Plan how you will collect the evidence.
  - b** Plan how to record what happens.

	<b>Plan</b>
<i>First we</i>	
<i>Then we</i>	
<i>Next we</i>	

- c** What do you think will happen? Tell your prediction to your teacher.

*I predict that* \_\_\_\_\_

---

- 4** Choose the things you need for the investigation and collect them.

## Activity 6 (continued) 25



 **5** Share your group's plan with the teacher.

## Activity 6 (continued) 26



**6** Do your investigation and record what happens.

- a** Are the results the same as your prediction?  
Circle your answer.

Yes                      No

Was it right or wrong?

*It was* \_\_\_\_\_



**b** Share the results with the class.



**c** Listen and look as other groups report their results.

**7** What is the answer to the question you investigated?

- a** Tell the class what you think.

*I think the answer is* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- b** Try to explain why you think that.

*I think this because* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## Growing plants from seeds



### Activity 7 27

**You will need:** a pot, some seeds, some soil or compost, water and a pen or pencil.

-  **1** What will the seeds need to make them grow? Talk about it.

**Activity 7 (continued)**  28**2** Share out the tasks in the group:

- a** Collect the things you need to explore how seeds grow into plants.
- b** Plant the seeds in pots.
- c** Put a group name or number on the pot.

**3** When the seeds have been planted and have what they need, put the pot in a good place.

- a** Look at the pot each day.
- b** Draw pictures of it. Record any changes you see.



- c** Put the day's date on each drawing.

## Activity 7 (continued) 29

### **4** Take care of the seedlings.

- a** How can you stop them from falling over as they get bigger?

*I can*

---

- b** Try to keep your plants alive until the flowers open.



- c** Draw the plant with flowers. Put the day's date on the drawing.

### **5** Display your plants and your drawings.



**Activity 7 (continued)**  30

**6** Look at the plants and drawings from other groups. Compare them with yours.

**a** Are they different? Circle your answer.

Yes

No

**b** How are they different? \_\_\_\_\_

\_\_\_\_\_



**7** Draw a plant that is different from yours.

**a** Show it to the class.

## Activity 7 (continued) 30

**b** Tell the class what you can see.

*I can see*

---

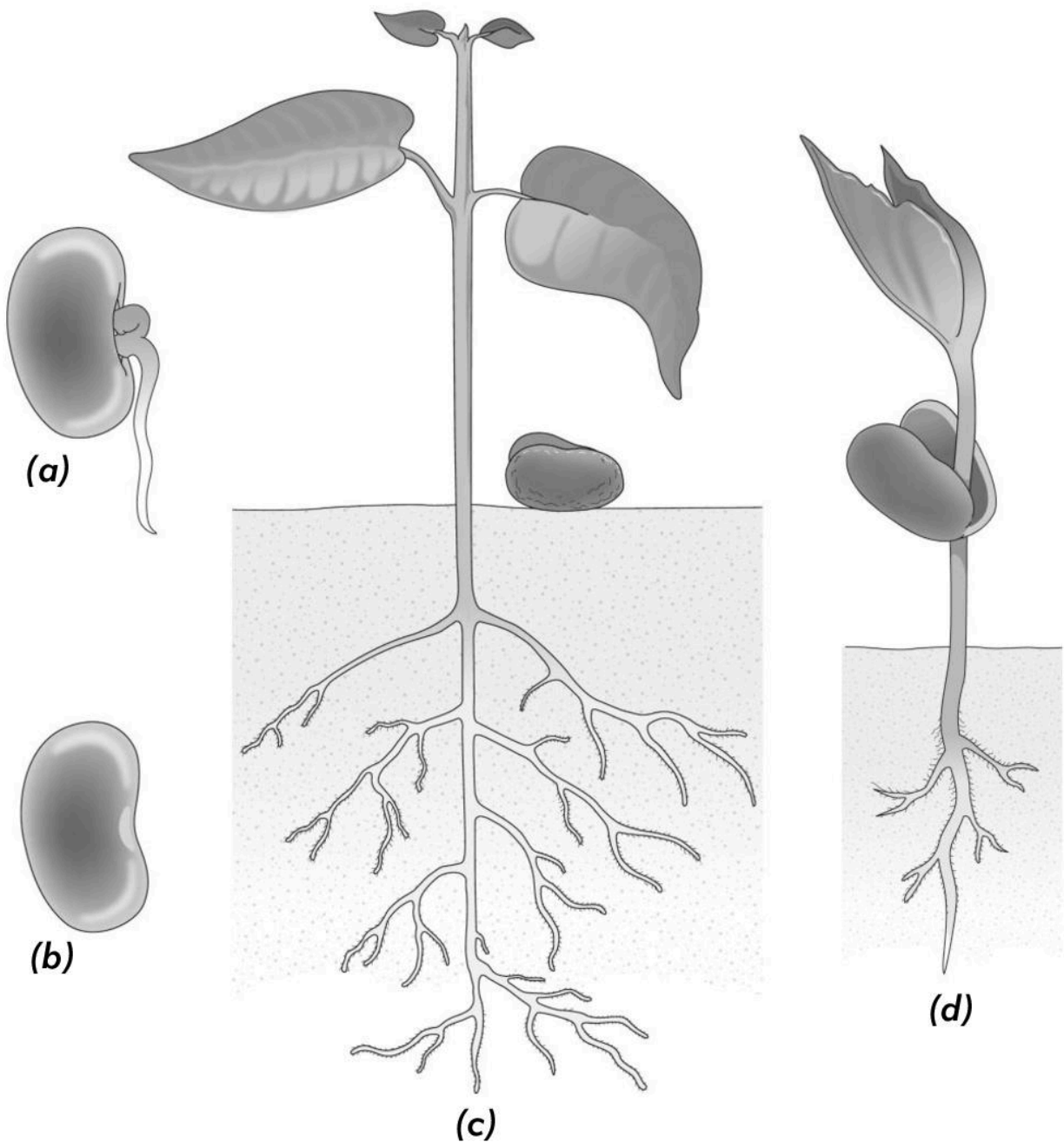
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**8** Now you have finished, what have you found out about growing plants from seeds? Tell the class what you think.

*I think seeds need \_\_\_\_\_ and*

*\_\_\_\_\_ to grow well.*

## Activity A



**You will need:** a pen or pencil.

- 1** The pictures show some stages (steps) of a seed growing. They are mixed up.

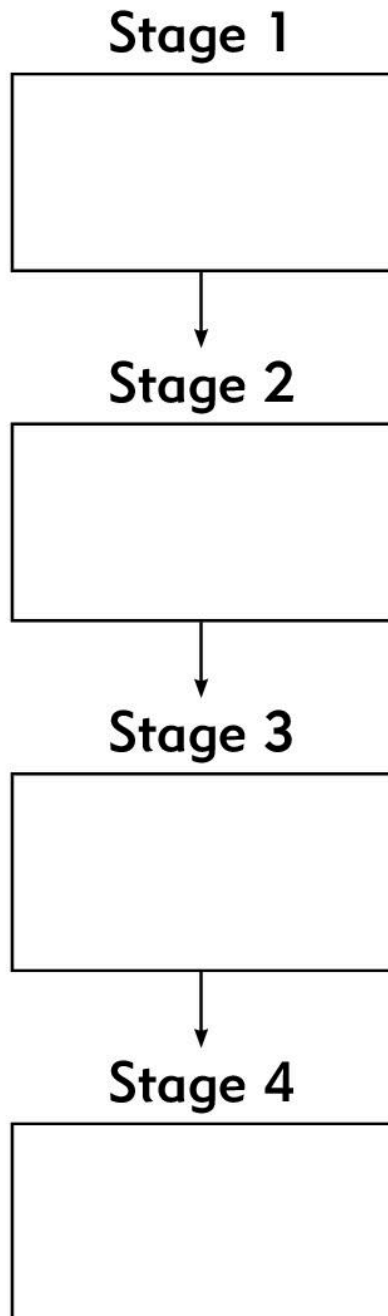
## Activity A (continued)



**2** Look at them and sort them into the right order.



**3** What is the right order? Write the letters in the boxes below.



## Activity B

**You will need:** three different leaves and a pen or pencil.

- 1** Collect three different leaves.  
Call them leaf A, leaf B and leaf C.



- 2** Draw them in the boxes below.

**Leaf A**

**Leaf B**

**Leaf C**

## Activity B (continued)

- 3** Compare the leaves.  
Describe your different leaves.

*Leaf A is*

---

*Leaf B is*

---

*Leaf C is*

---

- 4** What is the same about the leaves?

*All the leaves*

---

---

---

- 5** What is different about the leaves?

---

---

---

## Chapter 2: Humans and animals



We are all different – and the same

### Activity 1 33

**You will need:** colouring pencils.



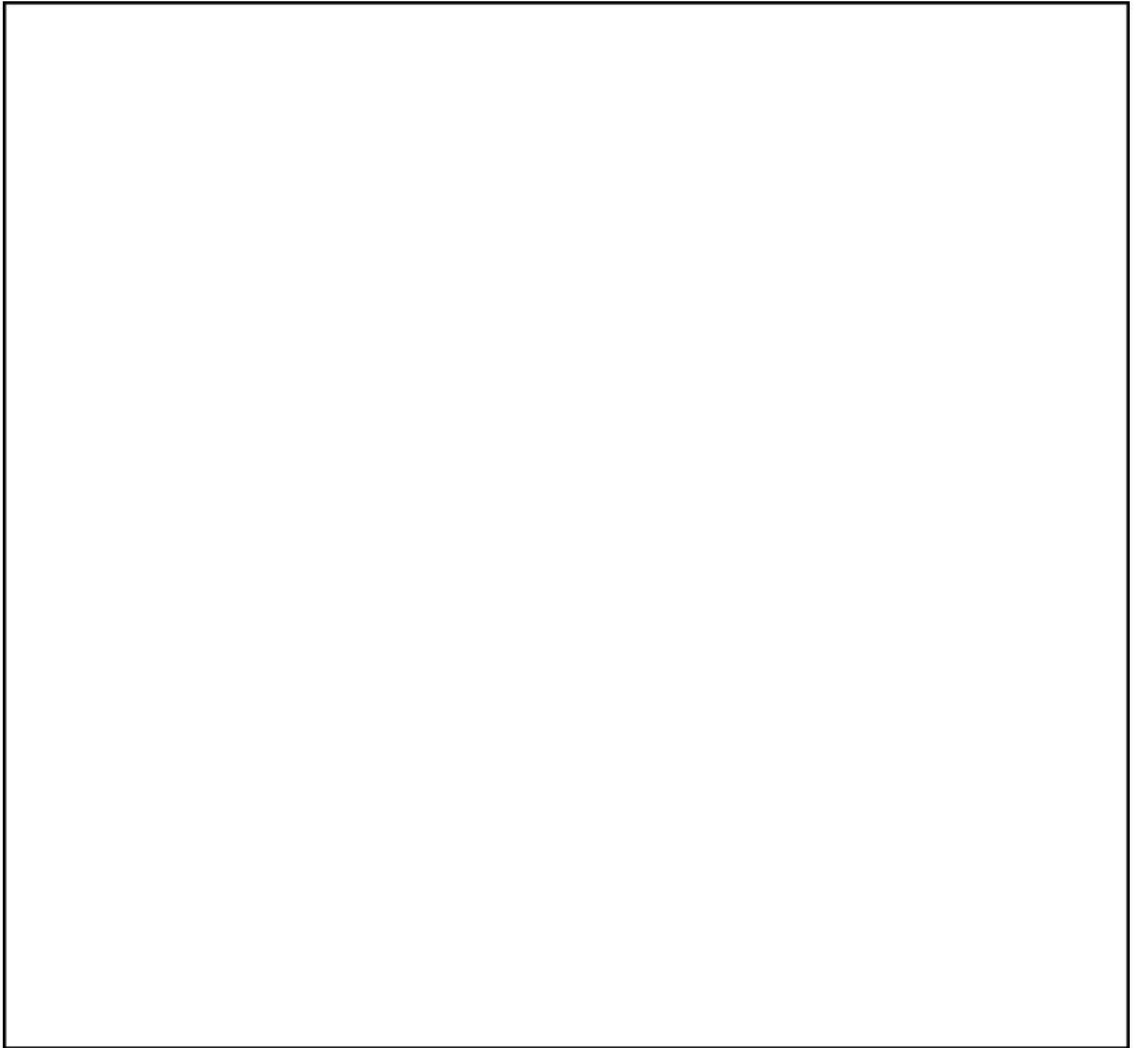
**1** Draw a picture of yourself.

A large, empty rectangular box with a black border, intended for the student to draw a picture of themselves.

## Activity 1 (continued) 33



**2** Now draw a picture of another child in your class.



**3** Display the two drawings side by side.



**a** Let the class look at them.

**b** How do you both look?

What is different about you?

What is the same about you?



## Activity 1 (continued) 34

- 4** Now do the same with drawings by another child in the class.

*The differences are*

---

---

---

*The things that are the same are*

---

---

---



**Talk about the drawings with the class.**

**Tell the class your ideas about the differences and similarities.**

---

---



### Activity 2 36

**You will need:** a pen or pencil.

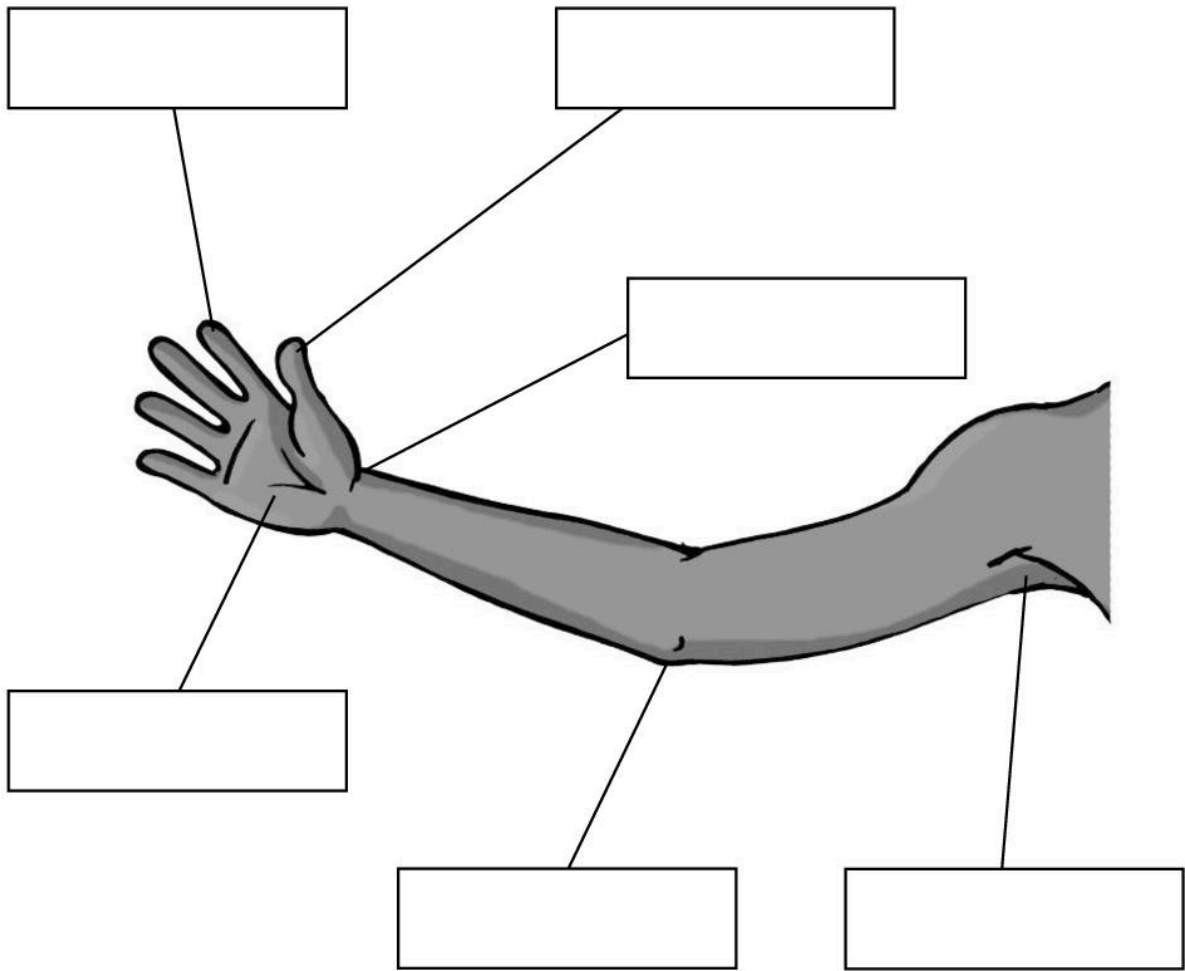
Complete the sentences below.

Use these words to fill in the gaps:

**food ears speak teeth eat eyes**



- 1** We use our \_ \_ \_ \_ to hear sounds.
- 2** We use our mouths to \_ \_ \_ and to  
\_ \_ \_ \_ and to breathe.
- 3** We use our \_ \_ \_ \_ to see.
- 4** We use our \_ \_ \_ \_ to bite and chew  
our \_ \_ \_ \_.



### Activity 3 37

**You will need:** a pen or pencil.



**1** Look at the picture of an arm.

- a** Can you name all the parts of the arm?
- b** Touch each part on your body as you name it.

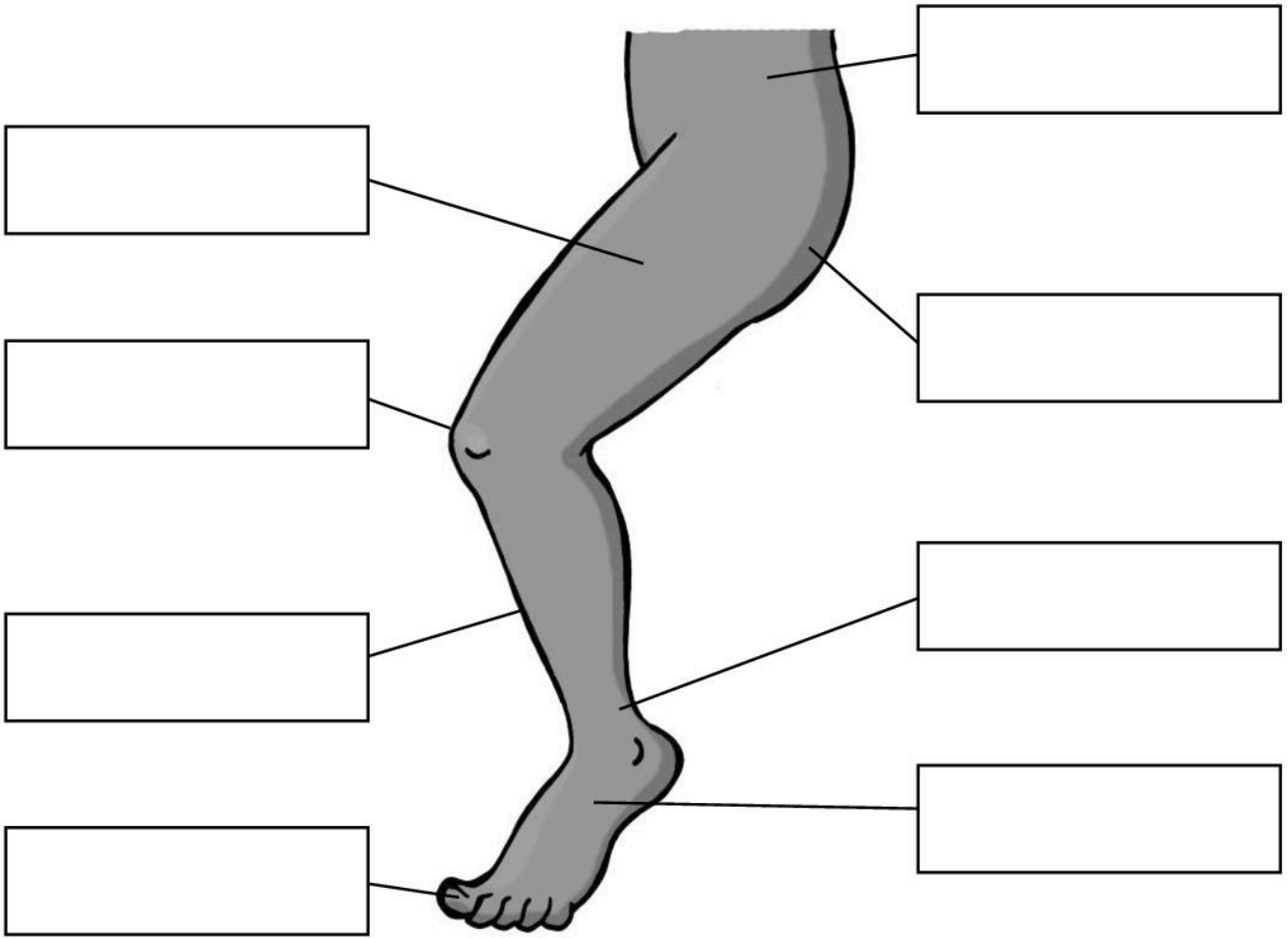


**2** Write the name of each part in the correct box.

Choose from this list:

**hand finger thumb elbow armpit wrist**

### Activity 3 (continued) 38 – 39



**3** Look at this picture of a leg.

- a** Can you name all the parts of the leg?
- b** Touch each part on your body as you name it.



**4** Write the name of each part in the correct box.

Choose from this list:

**ankle foot toe knee hip thigh shin buttock**

**5** Do you know a song that can help us to remember the names of our body parts?

**Activity 4**  40

**You will need:** colouring pencils.



**1** Complete this table.

Count how many of each body part you have. Write the numbers in the table.

The first row has been done for you.

We have two arms.

Body part	Number
arms	2
hands	
fingers	
eyes	
elbows	
ears	
nose	
mouth	
lips	
tongue	
legs	

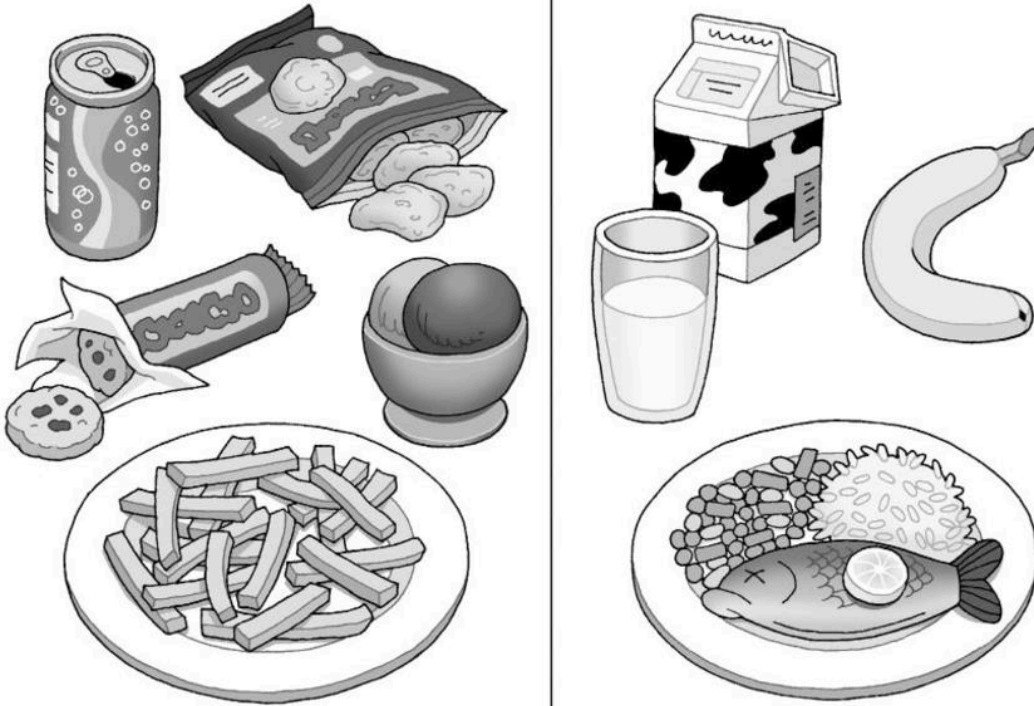
# Activity 4 (continued) 41



**2** Complete this bar chart. Use your table to help you fill in the blocks for each body part correctly.



**3** Show your chart to the class and say what it shows.



## Activity 5 42



**1** Look at these two pictures.

One meal is healthy.

One meal is unhealthy.



**2** Talk to your group about the meals.

- a** Which is the healthy meal?
- b** Tell the class what you think.

*I think the healthy meal is* \_\_\_\_\_

---

---

---

## Activity 5 (continued) 42

**3** Explain why you think this is the healthy meal.

*I think it is healthy because*

---

---

## Activity 6 46



tap water



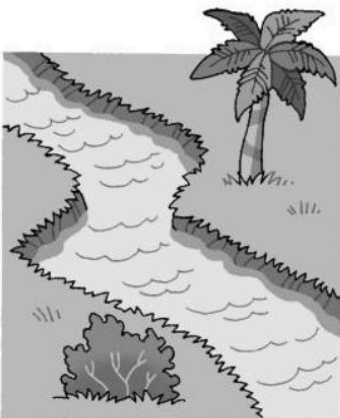
bottled  
water



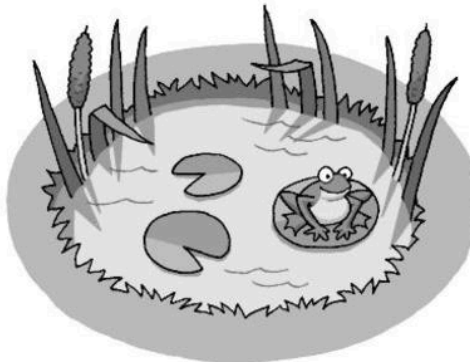
pump  
water



well water



river water



pond water



stream water



**1** Look at these pictures of water from different places or sources.



## Activity 6 (continued) 46



**2** Talk about them in your group.

**a** Choose a healthy water source.

\_\_\_\_\_ is a healthy water source.

**b** Choose an unhealthy water source.

\_\_\_\_\_ is an unhealthy water source.



**3** Tell the class which you chose.

Explain why you chose them.

*I chose them because*

---

---

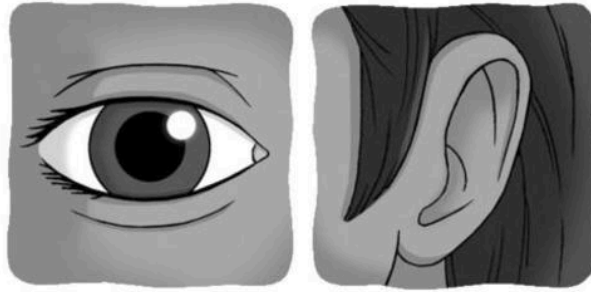
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# Senses



Sense organ	Sense
eyes	touch
ears	smell
nose	sight
tongue	hearing
skin	taste

## Activity 7 49

**You will need:** colouring pencils.

 Look at the table.

Draw lines to match each sense organ to its sense.  
The first one has been done for you.



## Activity 8 50

**You will need:** an outdoor area where you can walk.

 **1** Look at the children in the picture.


Which senses are they using?

*They are using their senses of \_\_\_\_\_*

---

**2** Go out on a nature walk.

**3** Try to use all your senses.

 **WARNING:** do not put things in your mouth.

## Activity 8 (continued) 50



**4** Back in class, tell others what your senses told you. Write it down here.

---

---

---

---

---

---

---

---

**Our sense organs pick up the sounds, the sights, the smells, the tastes and the 'feel' of things.**

## Activity 9 51

**You will need:** a scarf or piece of cloth, and a pen or pencil.

 **1** In your group, you will explore the way your senses help you.

Collect five different things. Choose things of different sizes, materials, feel, colour and smell. Some must make a sound.

Write them down here.

---

---

---

**2** Put the things under a cloth on a tray or table.

You will swap with another group so that you don't know what the objects are.

Then you will take it in turns to feel the objects under the cloth.

You will use your senses to tell the sound, the smell, the shape, the feel, the size and the material of each object. Work out what each object is, then name it.

## Activity 9 (continued) 51

**3** Plan how you will record the results.

	<b>Plan</b>
<i>First we</i>	
<i>Then we</i>	
<i>Next we</i>	

Show the group's plan to the teacher.

**Activity 9 (continued)**  52

**4** Record your answers. Write down the results for each turn.



It makes a sound like

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------



It smells like

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------



It feels

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------

Continued on next page

## Activity 9 (continued) 52

Its size is

1	2	3	4	5
---	---	---	---	---

The object is a

1	2	3	4	5
---	---	---	---	---

 **5** Compare the results.


What do each of your senses help you to do?  
Discuss each sense in turn.

*Our ears help us to* \_\_\_\_\_

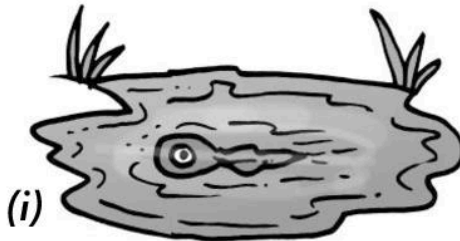
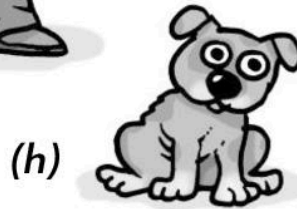
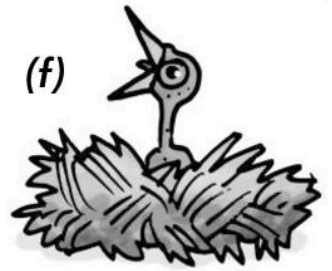
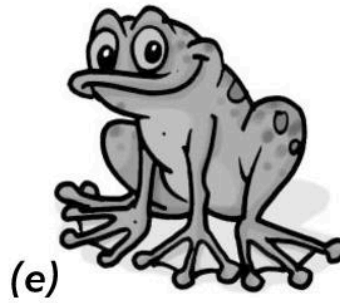
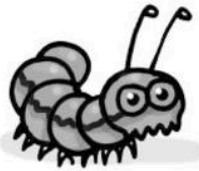
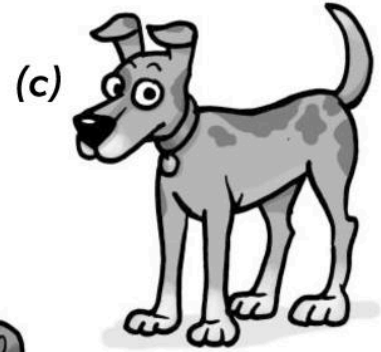
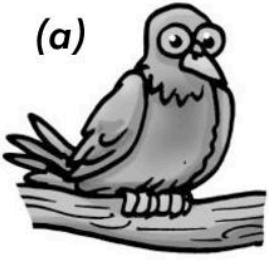
*Our eyes help us to* \_\_\_\_\_

*Our skin helps us to* \_\_\_\_\_

*Our noses help us to* \_\_\_\_\_

 **6** Share your results with the class.  
Try to explain them.





## Activity 10 54

**You will need:** a pen or pencil.



**1** Look at the pictures of adults and their young.

**2** Match the parents and their children.

## Activity 10 (*continued*) 55



**3** Write a list of the letters for each pair.

*a* goes with \_\_\_\_\_

*b* goes with \_\_\_\_\_

*c* goes with \_\_\_\_\_

*d* goes with \_\_\_\_\_

*e* goes with \_\_\_\_\_



**4** Share your answers with the class.



(a)



(b)



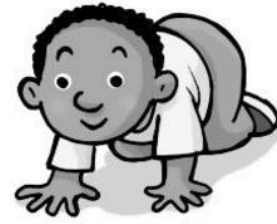
(c)



(d)



(e)



(f)

## Activity 11 56

**You will need:** a pen or pencil.



**1** Look at these pictures of people of different ages.

**2** Sort them into the right order – from the youngest to the oldest.

## Activity 11 (*continued*) 57



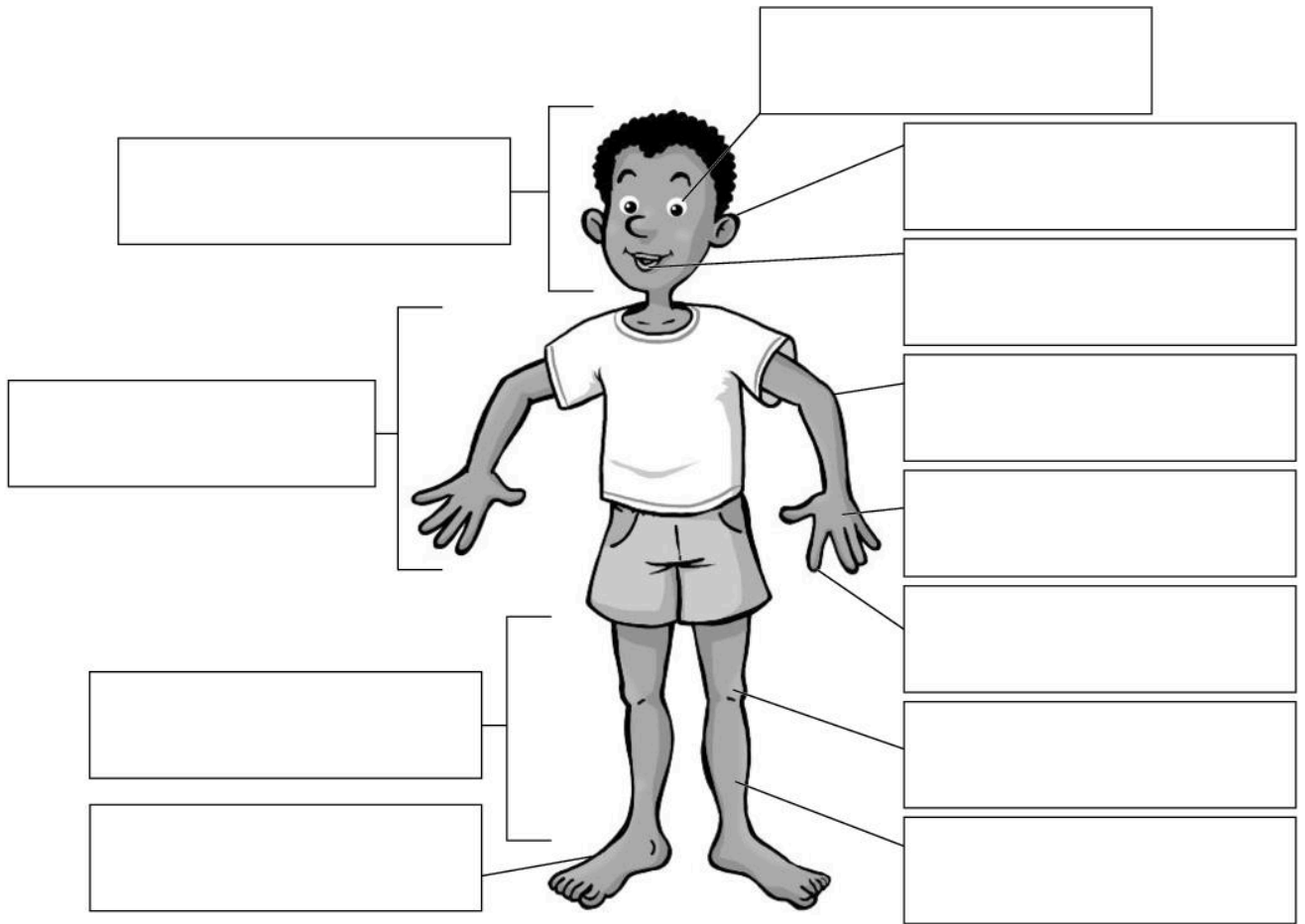
**3** Write the letters in the right order, from the youngest to the oldest. Write them on the arrow below.

Youngest  Oldest



**4** Share your answers with the class.

## Activity C



head arm leg eye lips ear hand elbow  
finger knee foot shin

**You will need:** a pen or pencil.



**1** Look at the picture of the body.

- a** Read the names of the body parts.
- b** Match the names to the body parts.
- c** Write the correct names in the boxes on the diagram.

## Activity D

**You will need: a pen or pencil.**



**1** Keep a food diary at home for three days.

- a** Record all the things you eat and drink at home.

Make a mark in the 'tally' column, like this | every time you eat or drink each type of food or drink.

	Food and drink	Tally	Totals
<b>A</b>	Egg		
<b>B</b>	Milk		
<b>C</b>	Fish		
<b>D</b>	Rice		
<b>E</b>	Bread		
<b>F</b>	Fruits		
<b>G</b>	Vegetables		
<b>H</b>			
<b>I</b>			
<b>J</b>			

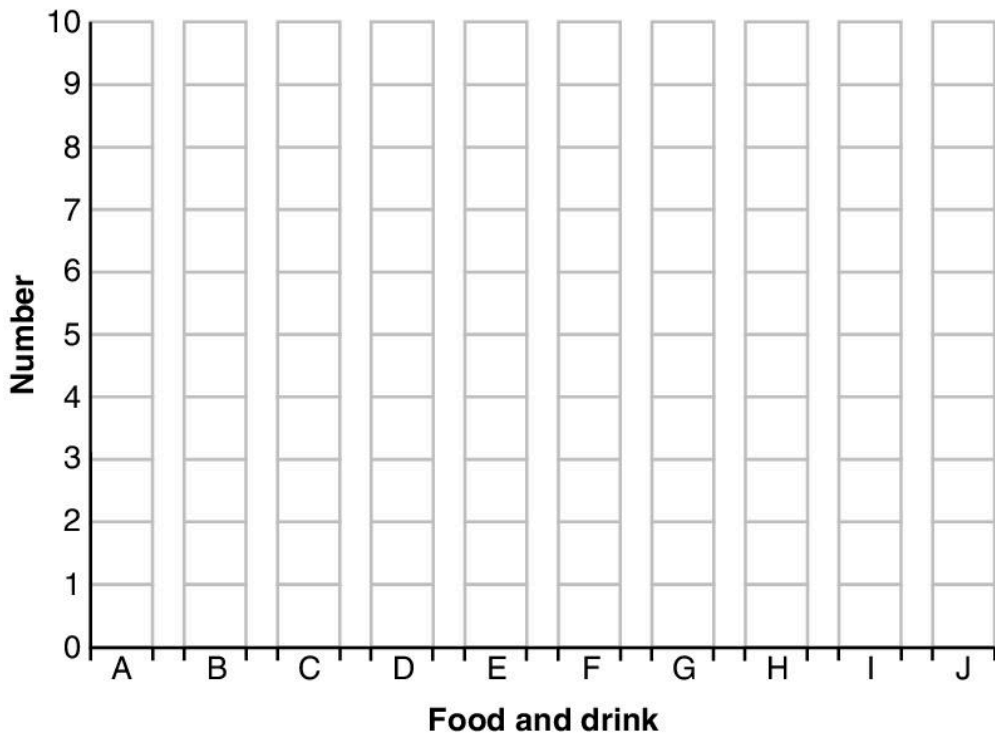
- b** If you eat or drink other things, write them in the blank spaces in the table.

**2** Count up all the marks you've made in each row. Write the totals in the last column.

## Activity D (continued)



- 3** Turn the data from the table into a bar chart. Draw and colour the right number of squares for each food.



### Key

A = Egg

B = Milk

C = Fish

D = Rice

E = Bread

F = Fruits

G = Vegetables

H = \_\_\_\_\_

I = \_\_\_\_\_

J = \_\_\_\_\_

# Chapter 3: Material properties



## What are things made of?

### Activity 1 59

**You will need:** a pen or pencil.

- 1** Move around the classroom and find two different materials.

*Material one is* \_\_\_\_\_

*Material two is* \_\_\_\_\_



- 2** Compare the materials you have found.

- a** What is different about each one?

\_\_\_\_\_

- b** What is the same about them?

\_\_\_\_\_



- 3** Tell the class what you observed.

- a** Show them what you collected.

- b** Tell them which senses you used to compare each material.

*I used my* \_\_\_\_\_

\_\_\_\_\_



**Activity 1 (continued)**  **59** –  **60**

**4** Go outside and find two other materials.

*Material three is* \_\_\_\_\_

*Material four is* \_\_\_\_\_



**5** Compare the materials you have found.

**a** What is different about each one?

\_\_\_\_\_

**b** What is the same about them?

\_\_\_\_\_



**6** Tell the class what you observed.

**a** Show them what you collected.

**b** Tell them which senses you used to compare each material.

*I used my* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## Activity 2 62

**You will need:** a pen or pencil.



- 1** Look at the four things you collected in Activity 1. Touch them.

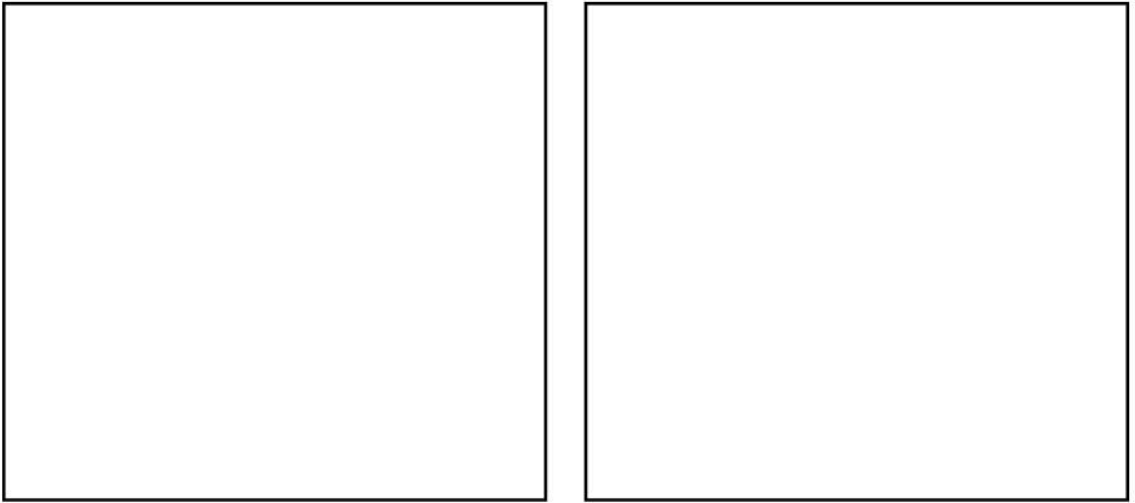
red hard green soft yellow smooth  
wet rough sticky shiny black round  
sharp blue

The words above are all **properties** (characteristics) of materials.

- 2** Choose words that describe your four materials. If the words you need are not in the list, then add your own words.



- 3** Draw your four materials and copy the words that describe them.

**Activity 2 (continued)**  62 –  63

**4** Show the class what you have done.



**5** Tell them which senses you used to identify the properties of your materials.

**6** Play a game with your class.

**Either:**

Choose an object from your drawings. Name one property that it has.

**Or:**

Choose a property. Then choose an object that has that property.

Now get into your group and play the game again.



## Naming materials

65

Everything is made of a material.

Each material has a name.

Some materials are put together in a group.

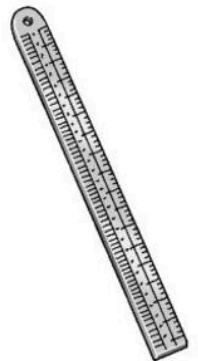
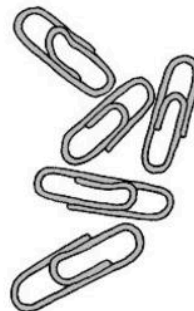
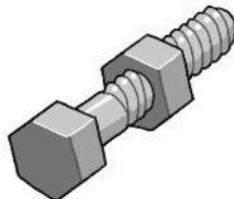
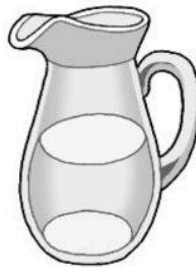
What group do water, milk and orange juice belong to?

They are all \_\_\_\_\_

What group do gold, iron and silver belong to?




They are all \_\_\_\_\_

Tell the class what you think.



## Activity 3 66

**You will need:** a pen or pencil.

-  **1** Look at the pictures on page 64.
-  **2** Talk to your group about what each one is made of.
  - a** Identify (name) the materials.
  - b** Tell the class what your group thinks.
- 3** Now choose four of these materials: wood, metal, plastic, glass, fabric, rubber.
-  **4** Move around the room.
  - a** Find two examples of each material.

Continued on next page

### Activity 3 (continued) 66



**b** Collect them or make a drawing of each one.

--	--	--	--

--	--	--	--

**5** Show the class what you have found.



**6** Tell the class the names of the materials each object is made of.



## Activity 4 68

**You will need:** a pen or pencil.

- 1** Collect three things that have at least one property that is the same.

*I collected*

---

---

- 2** Add them to your collection.

- 3** Mix up all the items.

- Sort them into three groups. Take it in turns to do this.
- Each time, choose a property for each group.
- Don't tell the others which property you chose.



- 4** Look at the groups.

What is the property each group has?

Group A has the property of \_\_\_\_\_

Group B has the property of \_\_\_\_\_

Group C has the property of \_\_\_\_\_

## Activity 4 (continued) 69



**5** Tell the people you are working with what you think.

**6** Look at the other groups collected by your classmates. Try to work out what property each of their groups has.

*Group A has the property of* \_\_\_\_\_

*Group B has the property of* \_\_\_\_\_

*Group C has the property of* \_\_\_\_\_



## Activity E

**You will need:** a pen or pencil.

**1** Find three things.

One must be made of paper.

One must be made of metal.

One must be made of clay.



**2** Draw and name them.

**Paper**

Name:

---

**Metal**

Name:

---

**Clay**

Name:

---

**3** Finish these sentences. Add the names and a property of each one.

**a** Paper: *The* \_\_\_\_\_ *is* \_\_\_\_\_

**b** Metal: *The* \_\_\_\_\_ *is* \_\_\_\_\_

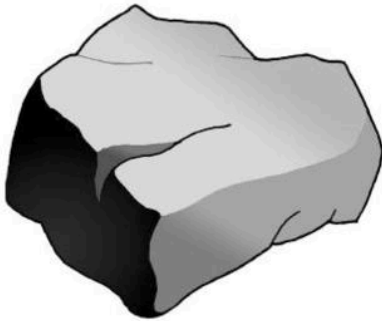
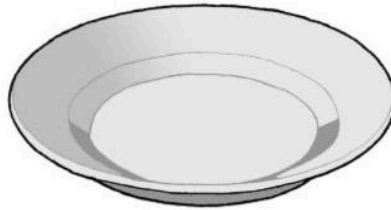
**c** Clay: *The* \_\_\_\_\_ *is* \_\_\_\_\_

## Activity F

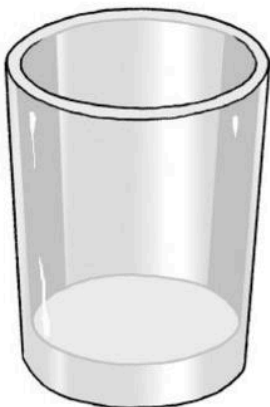
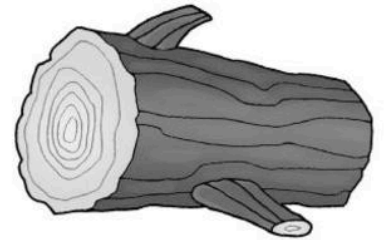
You will need: a pen or pencil.



A



B



C



## Activity F (continued)



**1** Look at the three groups on the previous page. Work out why the things are in the groups.

**2** Finish these sentences:

Group A are all \_\_\_\_\_

Group B are all \_\_\_\_\_

Group C are all \_\_\_\_\_

**3** Find one more thing to add to each group.



**4** Draw and name them below:

**Group A**

Name:

\_\_\_\_\_

**Group B**

Name:

\_\_\_\_\_

**Group C**

Name:

\_\_\_\_\_



### Activity 1 71

**You will need:** a pen or pencil.

- 1** Plan with your group how you will explore the movement of *three* different things.

Like this:

	<b>Plan</b>
<i>First we</i>	
<i>Then we</i>	
<i>Next we</i>	

**Activity 1 (continued)**  71

- 2** How can you describe the movement of your objects? Circle the correct answer.

**slide****roll****twist****bounce**

- 3** Think about how you will record what you see.

- 4** What will the movements be like? Predict them.

*I predict that object A will \_\_\_\_\_*

---

*I predict that object B will \_\_\_\_\_*

---

*I predict that object C will \_\_\_\_\_*

---

- 5** Show your plan to the teacher.

## Activity 1 (continued) 72



**6** Carry out your plan for each thing. Record it here:

## Activity 1 (continued) 72

 **7** Talk about the movements with your group.  
Compare them.

**a** What was the same?

---

---

**b** What was different?

---

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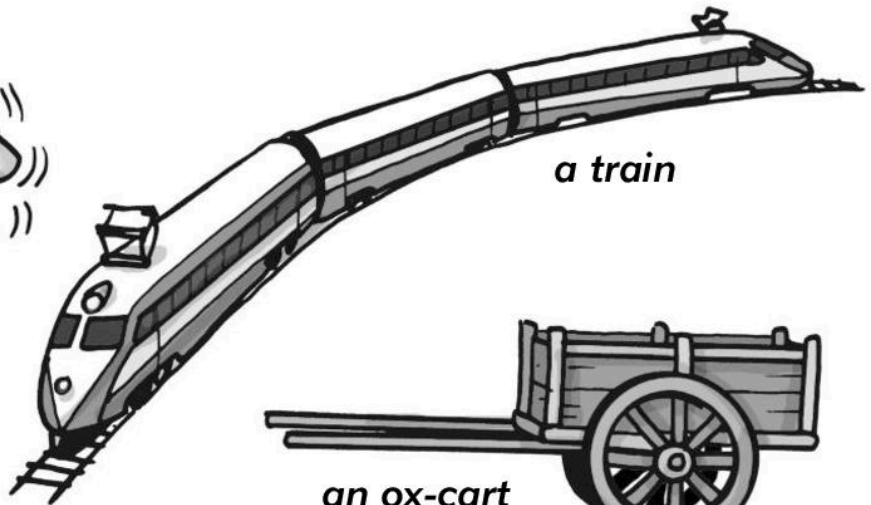
 **8** Compare what you saw happen with what you predicted. Were you right?

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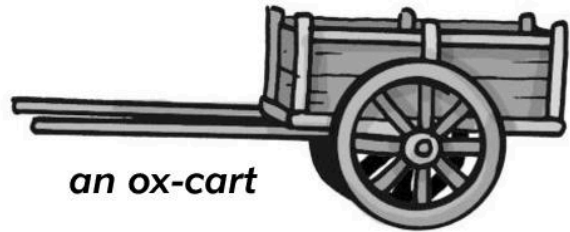
 **9** Share your results with the class.



*a wind-up toy*



*a train*



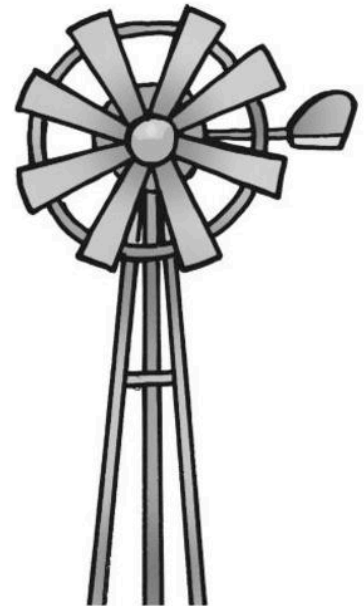
*an ox-cart*



*a helicopter*



*a toy car*



*a wind pump*



*a food mixer*

Some toys can move.

Some have a motor to make them move.

Some can be wound up.

We can move some of them by hand.

We can push or pull them.



74

Complete the sentences below.

Here are the words you need:

**wheels wind wings kites cars  
machines**

**1** Movements can be made by

\_\_\_\_\_.

**2** Bicycles, buses and \_\_\_\_\_ move better

because they have \_\_\_\_\_.

**3** Planes have engines and \_\_\_\_\_.

**4** Things can be moved by the \_\_\_\_\_.

**5** The wind can move sails, flags and \_\_\_\_\_.



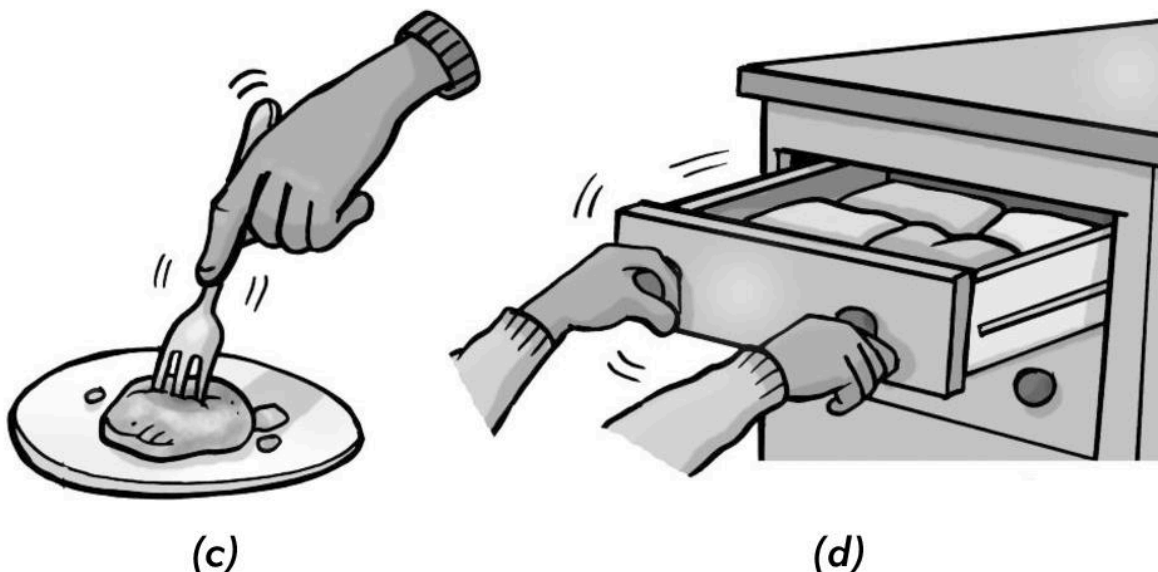
## Pushes and pulls


75

Things move when they are pushed or pulled.

A push is a force.

A pull is a force.



 Look at these pictures. They show forces making things move.

 Talk with your class about them. What can you see?

**75** – **76**

Work out which are pulls and which are pushes.



Write down your answers, using the letters (a) to (d).

The pushes are \_\_\_\_\_

The pulls are \_\_\_\_\_

Share your answers with the class.

Explain your answers.

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---

## Activity 2 76

**You will need:** a pen or pencil.

**1** Use your hands to move four things in the room.



**2** Identify the force each time. Is it a push or a pull that you use?



**3** Record what you push or pull.

Write down or draw what you do.

Tick whether it is a 'Push' or 'Pull'.

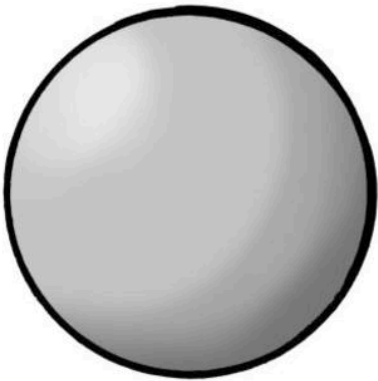
Action	Pull	Push
1 Open door		
2		
3		
4		

**4** Share your results with the class.



## Activity 3 78

**You will need:** a ball or toy car.



**1** Put a ball or toy car on the floor.

**2** Make it speed up.

 **3** How did you do it?

---

---

---

Tell the class.

**4** Make the ball or toy move.  
Slow it down.

## Activity 3 (continued) 78

 **5** How did you do it?

---

---

---

Tell the class.

**6** Make the ball or toy move.  
Change its direction.

 **7** How did you do it?

---



---

---

Tell the class.

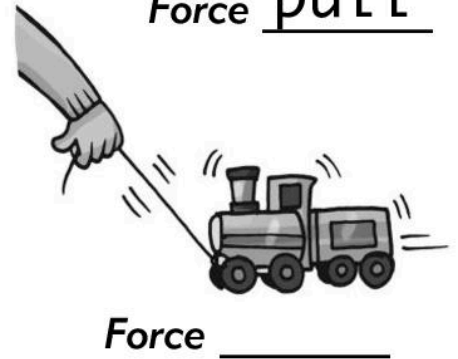
## Activity G

**You will need:** items to push or pull and a pen or pencil.



- 1** Use your hands to move five different things.
-  **2** Name the force you use each time.  
Is it a pull or a push?
-  **3** Record the names of the things you moved.
  - a** Write them in this table.
  - b** Tick whether you pushed them or pulled them.

Things I moved	Pull (✓)	Push (✓)

## Activity H



**You will need:** a pen or a pencil.

-  **1** Look at the pictures.  
A force is being used in each one.
- 2** Work out which force is a pull and which force is a push.
-  **3** Write **pull** or **push** under each picture.
- 4** Draw arrows on the pictures to show which way the push or pull goes. One has been done for you.





### Activity 1 84

**You will need:** an area outside and a pen or pencil.

**1** Go outside. Find a good place to sit still and be as quiet as you can.

 **2** Be very still. What can you hear?

*I can hear*

---

---

---

**3** Do you know what is making each sound?

 **4** When you have heard four different sounds, tell your teacher.

 **5** Back in class, identify the sounds you heard.

Sound A is \_\_\_\_\_

Sound B is \_\_\_\_\_

Sound C is \_\_\_\_\_

Sound D is \_\_\_\_\_

86

Complete the sentences below.

Here are the words you need:

**thunder wind crying sea frogs clapping  
dogs talking birds singing**

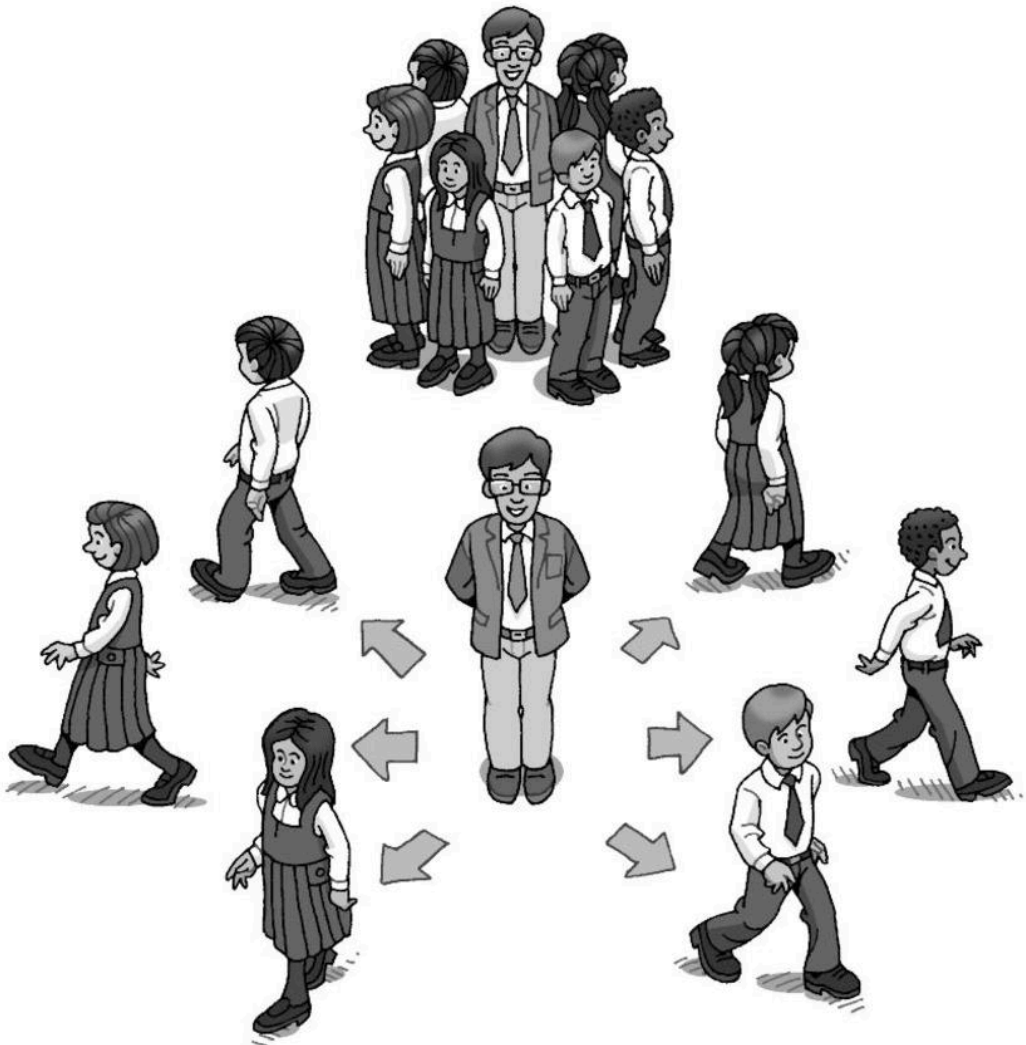
- a** Some sounds are natural, like the s \_ \_ \_ , the w \_ \_ \_ d and t \_ \_ u \_ \_ d \_ \_ r.
- b** Some sounds are made by animals, like b \_ \_ r \_ \_ s, f \_ \_ o \_ \_ s and d \_ \_ g \_ \_ .
- c** We can make sounds, like s \_ \_ n \_ \_ i \_ \_ g, c \_ \_ a \_ \_ p \_ \_ n \_ \_ , t \_ \_ l \_ \_ i \_ \_ g and c \_ \_ y \_ \_ n \_ \_ .



## Activity 2 87

**You will need:** an area outside and a pen or pencil.

- 1** Go outside and stand in a circle. Face outwards.
- 2** Listen to the sound made by the teacher.
- 3** Slowly move away from the teacher. Listen for the sound.



## Activity 2 (continued) 88

- 4** Stop and listen. What do you notice?  
Try to explain it.

---

---

-  **5** Predict what will happen if you go further away from the source of the sound. Tell the class.

*I predict that*

---

---

- 6** Slowly move further away. Listen for the sound.

- 7** Was your prediction correct?

Circle your answer.

Yes                      No

-  **8** Try to explain what you have observed.

---

---

---



## Activity 3 90

You will need: a pen or pencil.




- 1** Plan with your group to **explore** how you hear sounds.
- 2** Choose the things you need. Collect them.

### Activity 3 (continued) 90 – 91

**3** Plan what you will do and how you will do it.

Like this:

	<b>Plan</b>
<i>First we</i>	
<i>Then we</i>	
<i>Next we</i>	

 **4** Tell your teacher what you plan to do.  
Tell you teacher what you think will happen.

*I predict that* \_\_\_\_\_  
\_\_\_\_\_

**Activity 3 (continued)**  **91** –  **92**

**5** Do your exploration.



**a** Make observations.

**b** What did you find out? Record the results.

**6** Compare your results with your prediction. Is this what you thought would happen? Circle your answer.

Yes

No



**7** Tell the class what you think about what you found out.

---

---

---

## Activity 1

**You will need:** a pen or pencil.

A child went out to listen to sounds.

Here is the table of data they collected.

Source	Number of times sound heard	Totals
Birds	++++ +++++	
Cars	++++	
Babies		
Dogs	+++	
Planes		
Trains	0	



**1** Add up the data for each source.

Write the numbers in the Totals column.

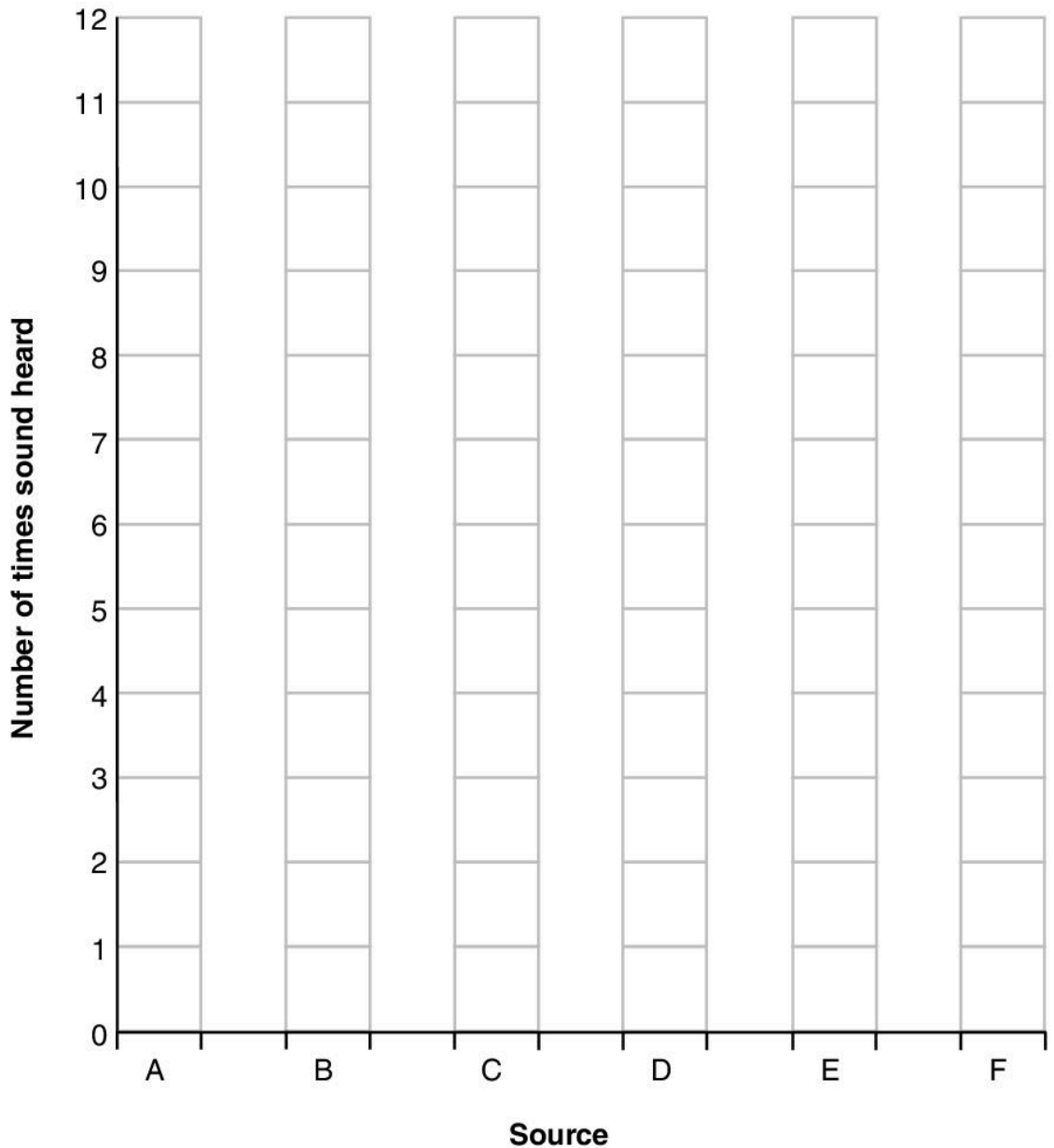
+++ is 5 times.



## Activity 1 (continued)



**2** Use the data to draw a bar chart. Colour it.



### Key

A = Birds

B = Cars

C = Babies

D = Dogs

E = Planes

F = Trains

## Activity J

**You will need: a pen or pencil.**

Complete the sentences below.

Here are the words you need:

**ears source natural sense far faint  
travels source hear wind**

- 1** If the source of a sound is too \_\_\_\_\_ away we cannot \_\_\_\_\_ it.
- 2** The sound will be too \_\_\_\_\_.
- 3** We use our \_\_\_\_\_ of hearing to hear sounds.
- 4** The sound goes into our \_\_\_\_\_.
- 5** Birds and the \_\_\_\_\_ make \_\_\_\_\_ sounds.
- 6** Sound \_\_\_\_\_ away from its \_\_\_\_\_.



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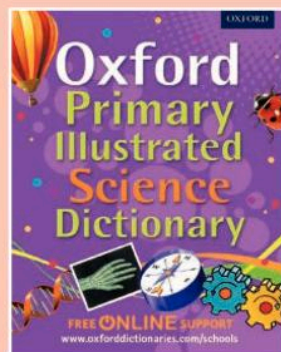
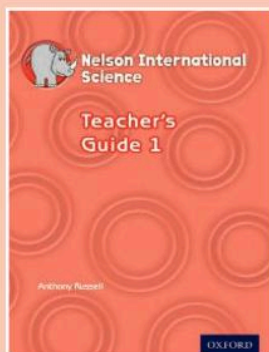
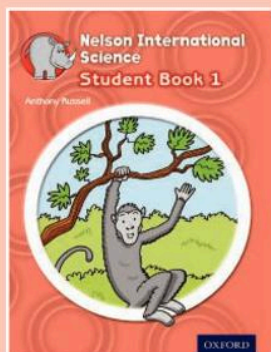
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