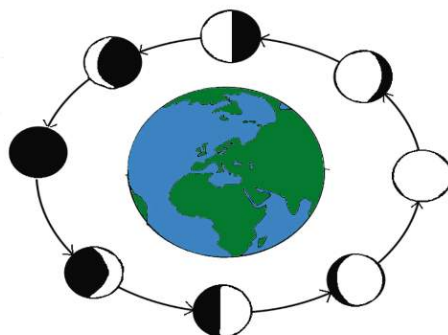


## Contents – The solar system

In this section you will cover the following language and concepts:



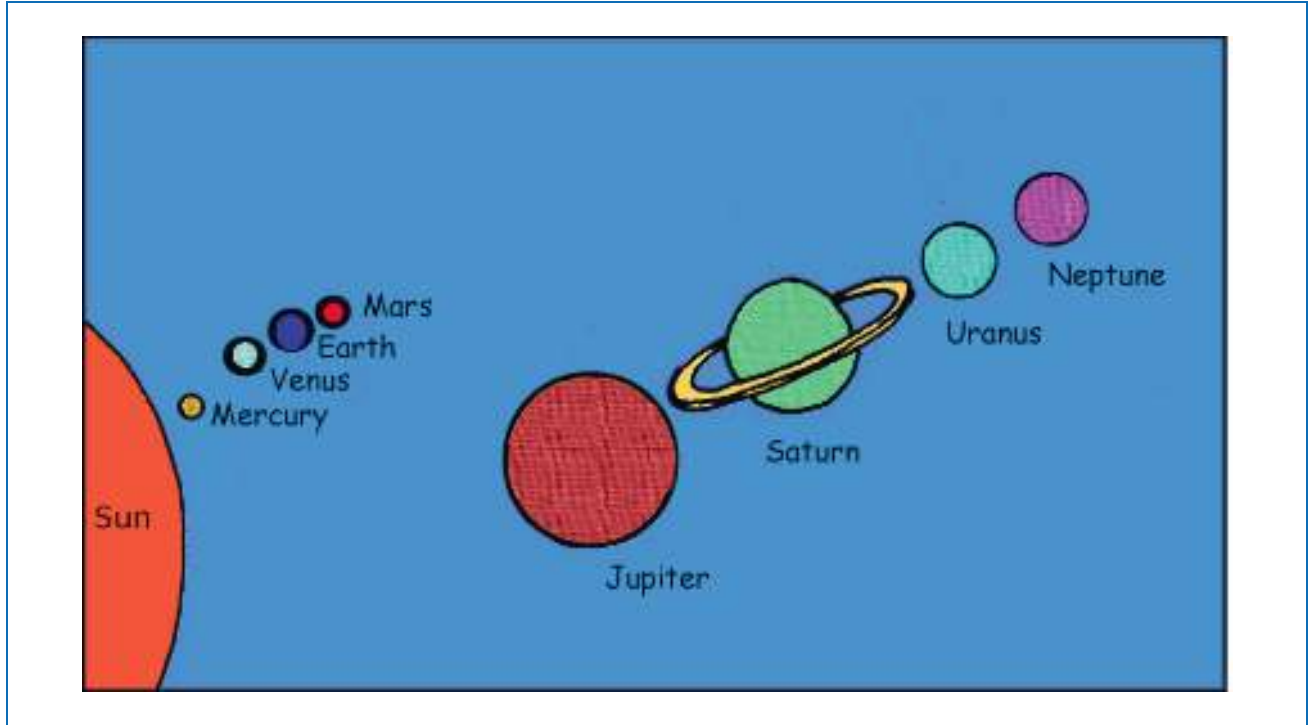
<p><b>1. The planets of the solar system</b></p>	<p><b>Vocabulary:</b> Solar system; planet; Sun; Mercury; Venus; Earth; Mars; Jupiter; Saturn; Uranus; Neptune</p> <p><b>Structures:</b> Where is (planet)?; (Planet) is next to...; (Planet) is between... and...; The planets rotate around the Sun; (Planet) is nearest to/furthest from the Sun; Which planet is the biggest/smallest?; (Planet) is the smallest; (Planet) is the biggest; (Planet) is bigger than (planet).</p>
<p><b>2. The movement of the Earth</b></p>	<p><b>Vocabulary:</b> Movement; revolution/revolve around; rotation/rotate on; axis; orbit</p> <p><b>Structures:</b> The Earth rotates on its axis; The Earth rotates from west to east; The Earth revolves round the Sun.</p>
<p><b>3. Solar Energy</b></p>	<p><b>Vocabulary:</b> Energy; solar; heat; light; source; sun; solar panel; PV panel; charge controller; rechargeable battery; household appliances</p> <p><b>Structures:</b> Solar energy is useful for...; We use solar energy to/for...</p>
<p><b>4. Planet Earth and the Moon</b></p>	<p><b>Vocabulary:</b> Earth; moon; sun; stars; day; night; travel; orbit; satellite; reflect; new moon; full moon; waxing; waning</p> <p><b>Structures:</b> What does number... show?; Which number shows...</p>
<p><b>5. People and places on the Earth</b></p>	<p><b>Vocabulary:</b> Continent; country; land mass; southern/northern hemisphere; race; inhabitant; nationality; country; Asia; Africa; North America; South America; Antarctica; Europe; Australia</p> <p>Nationalities with common word endings 'an'; 'ish'; 'ese' such as: Brazilian, American, Tanzanian, Australian, Chinese, English</p> <p><b>Structures:</b> I am...; He/she/it is...; We/you/they are...; This is...; It represents...</p>

## Topic 4: The Solar System

<p><b>6. Water for life on Earth</b></p>	<p><b>Vocabulary:</b> Irrigation; canal; river; tap; well; transportation; production; crops; agriculture</p> <p><b>Structures:</b> Water is used for... ; Water is essential for... ; Water is important for...</p>
<p><b>7. Weather</b></p>	<p><b>Vocabulary:</b> Weather; wind; temperature; pressure; humidity; clouds; precipitation; hot; rainy; sunny; windy; cloudy; stormy; raining; snowing; cold; wet; dry</p> <p><b>Structures:</b> It is (It's)...</p>
<p><b>8. Weather forecasting</b></p>	<p><b>Vocabulary:</b> Weather; forecast; predict; sunny; windy; cloudy; stormy; raining; snowing; cold; wet; dry, rain gauge; thermometer; manometer; barometer; windsock; direction; temperature; pressure; speed</p> <p><b>Structures:</b> I think it will be...; It will be...; What will the weather be like tomorrow?</p>
<p><b>9. Our climate and how it is changing</b></p>	<p><b>Vocabulary:</b> Rainfall; temperature; average; Celsius; weather; climate; millimeters; hot; cool; wet</p> <p><b>Structures:</b> ...is hotter/cooler/wetter/drier in... than in...; Because of...; As a result of...; As a consequence of...</p>
<p><b>10. Conserving our environment</b></p>	<p><b>Vocabulary:</b> Environment; degradation; conservation/conserve; bush fires; the environment; deforestation; pollution; recycle; poach; protect; overgraze; factory; cut down; waste; cattle; plant</p> <p><b>Structures:</b> We should (not)... ; We must (not)...; We ought (not) to...; To prevent... we must...; If we... , we will...; ...is harming environment by/through...</p>

## Lesson 1: The planets of the solar system

### Activity 1



### Activity 2



Look at these examples and then write about the planets.

\_\_\_\_\_ is next to \_\_\_\_\_ .

Uranus is bigger than \_\_\_\_\_ but smaller than \_\_\_\_\_ .

\_\_\_\_\_ is furthest from \_\_\_\_\_ .      \_\_\_\_\_ is nearest to \_\_\_\_\_ .

\_\_\_\_\_ is the smallest planet.      \_\_\_\_\_ is the biggest planet.



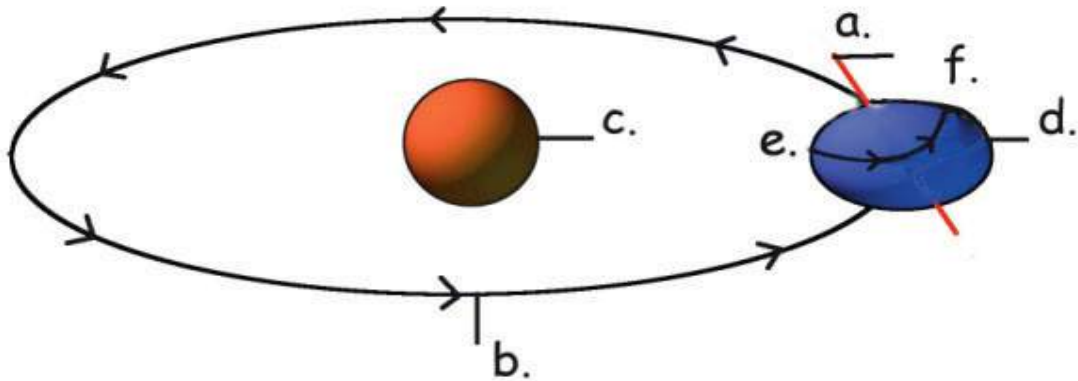
**Homework** – Can you learn the names and spellings of the planets? Try at home. While you are learning them think about *how* you are learning them so that you can share this with the class.

## Lesson 2: The movement of the Earth

### Activity 1



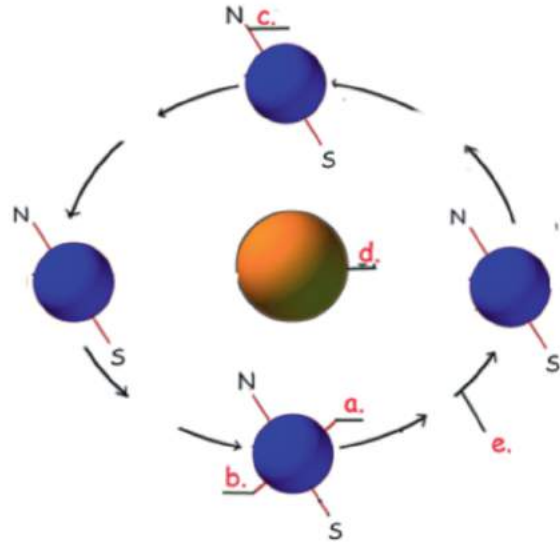
Look at the diagram of the Earth orbiting the Sun. Name the features represented by each letter.



### Activity 2



The two movements the Earth makes are the revolution around the **(d)** \_\_\_\_\_ and its rotation on its own **(c)** \_\_\_\_\_. It takes \_\_\_\_\_ days to revolve/ **(e)** \_\_\_\_\_ around the **(d)** \_\_\_\_\_ and \_\_\_\_\_ hours to rotate on its **(c)** \_\_\_\_\_. When facing the Sun it is **(a)** \_\_\_\_\_ and when away from the Sun it is **(b)** \_\_\_\_\_. The tilt of the Earth causes the four \_\_\_\_\_ of the year.



**Reflect** – Did acting out the Earth’s movement help you to learn and understand? Why do you think this happened?

## Lesson 3: Solar energy

### Activity 1



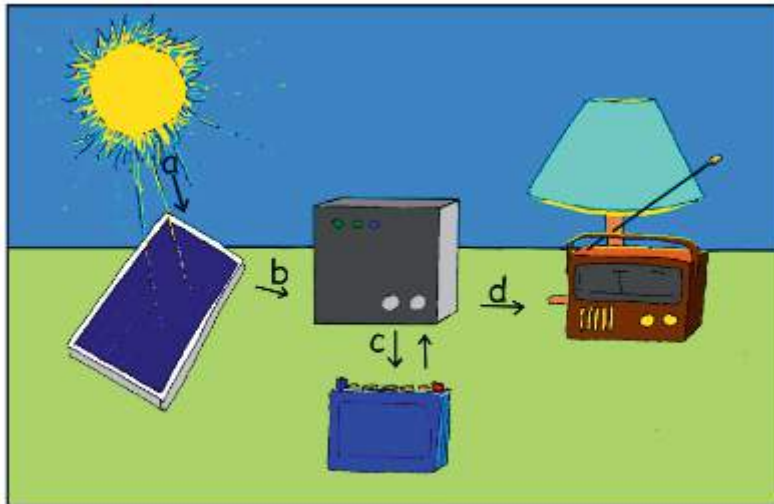
Work in groups. Look at the pictures and talk about the uses of solar energy. Make a list of the uses.



Activity 2



Put the following sentences in the order they are seen in the diagram.



	This heat energy is changed to electrical energy and flows through the charge controller.
	This is then used when needed for household appliances such as TVs, lights and radios.
	Rays from the sun are absorbed by the PV panel.
	This controls the amount of electricity stored in the rechargeable battery.

Activity 3



Read the text. Can you remember the missing words? Complete the gaps and then check with a partner.

The sun is a very important source of \_\_\_\_\_. It gives us heat and light energy which is also called \_\_\_\_\_ energy. We can change this energy into electrical energy using a solar \_\_\_\_\_. These are also called \_\_\_\_\_ panels. P is for photo (which means \_\_\_\_\_) and V is for voltaic (which means \_\_\_\_\_).

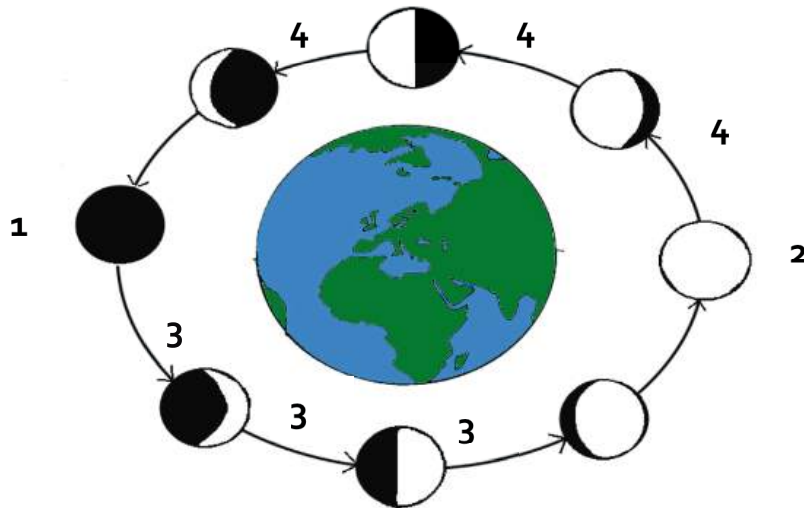
The sun's \_\_\_\_\_ hit the solar panel and heat it up. This heat energy is changed into electrical energy and flows through the charge \_\_\_\_\_ which controls the amount of electricity stored in the rechargeable \_\_\_\_\_ and going to the household appliances such as \_\_\_\_\_, lights and radios.

## Lesson 4: Planet Earth and the Moon

### Activity 1



Work in pairs. The diagram shows different phases of the moon. Ask questions about the moon using the language below.



What does number ... show?  
Which number shows ... ?

### Activity 2



Fill in the gaps with the correct words.

The Moon is a \_\_\_\_\_ of the Earth.

The Moon \_\_\_\_\_ the Earth once every \_\_\_\_\_ days.

The Moon does not give out light. It \_\_\_\_\_ light from the Sun.

We see the part of the Moon that is lit by the \_\_\_\_\_.

Sometimes we see the \_\_\_\_\_ of the Moon and sometimes we don't see it at all. These are called the \_\_\_\_\_ and the \_\_\_\_\_ moon.

When the Moon is getting bigger we say that it is \_\_\_\_\_.

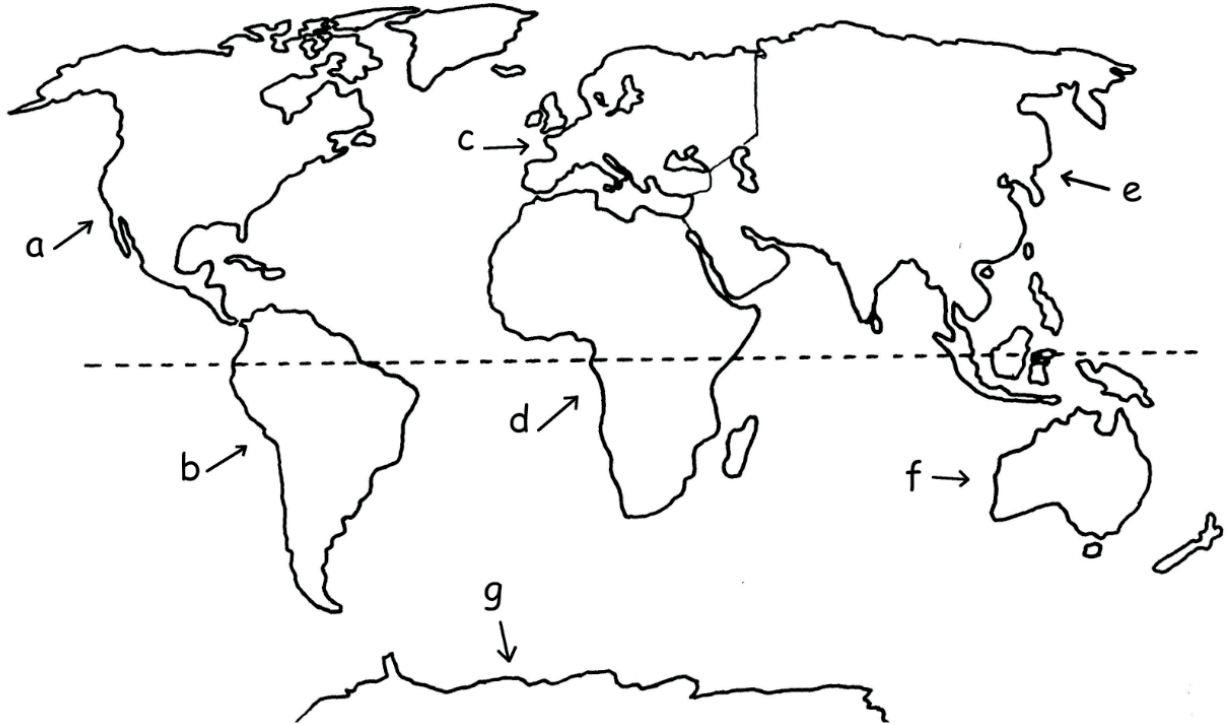
When the Moon is getting smaller we say that it is \_\_\_\_\_.

## Lesson 5: People and places on the Earth

### Activity 1



Ask each other about the continents.



### Activity 2



Answer these questions in full sentences.

1. Which continent is the biggest?
2. Which continent is the smallest?
3. Which continent do the people of India inhabit?
4. Which continent do the people of Uruguay inhabit?
5. What is the nationality of the people who come from Canada?
6. What is the nationality of the people who come from Spain?

Activity 3



Write sentences about these flags.

For example:



*This is the Tanzanian flag. It is green, yellow, blue and black. It represents The United Republic of Tanzania and the Tanzanian people.*



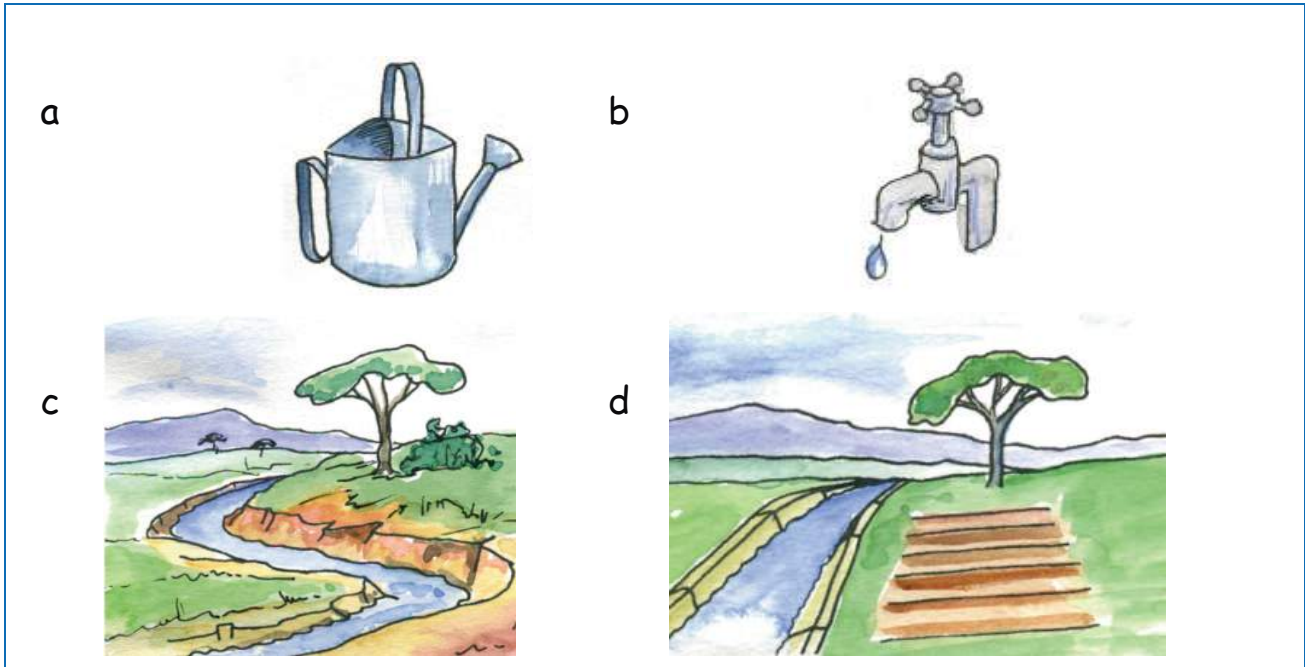
*This is...*



**Reflect** – How did sorting the nationalities by their endings help you to learn about this point?

## Lesson 6: Water for life on Earth

### Activity 1



### Activity 2



#### Listen and complete the text.

Water is very important in **a)** \_\_\_\_\_. Taking care of water is a top priority as water is often scarce and drought happens **b)** \_\_\_\_\_. Water is needed everywhere in our lives.

Agriculture is the main source of jobs and income. It is also the main export of the country. It is essential for our crops that we have rain and when we don't have rain we need the little **c)** \_\_\_\_\_ we have to reach the crops.' We need good sustainable irrigation systems linked to **d)** \_\_\_\_\_ and canals. The canals are used to transport goods and **e)** \_\_\_\_\_ to places they are needed.

Clean water from the **f)** \_\_\_\_\_ is essential for health and well-being. Many **g)** \_\_\_\_\_ do not have running water, consequently water needs to be collected from the wells. This water is often also used for watering crops by hand using **h)** \_\_\_\_\_ cans.

During the dry season **i)** \_\_\_\_\_ rely on the wells and all year round **j)** \_\_\_\_\_ rely on the wells for drinking and washing.

70% of the people in Tanzania are **k)** \_\_\_\_\_ in agriculture in some way. Without water these **l)** \_\_\_\_\_ would not have work. We need to find ways to protect the **m)** \_\_\_\_\_ sources for the future development of **n)** \_\_\_\_\_.

### Activity 3



Read the text in Activity 2 and answer these questions.

1. Why is taking care of water very important?
2. Why is water needed for agriculture?
3. What are the rivers used for?
4. What is well water used for?
5. How many people work in the agricultural industries in some way?



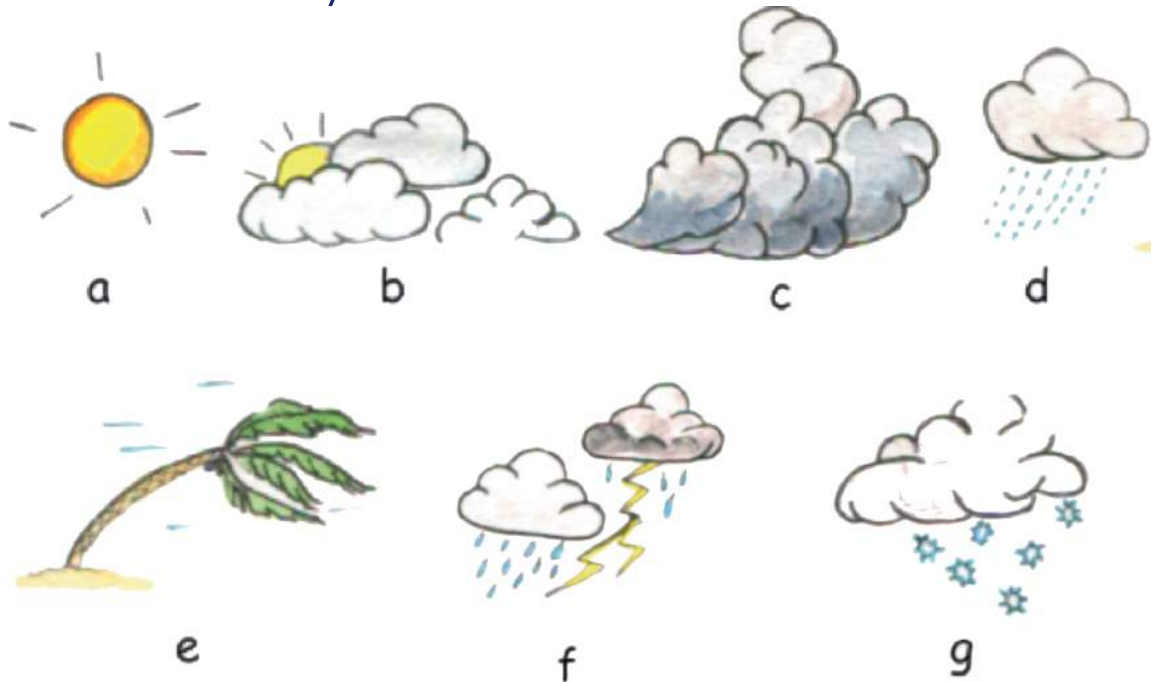
**Reflect** – Work with a partner to list all the ways you use water in your lives.

## Lesson 7: Weather

### Activity 1



What's the weather like today?



### Activity 2



Draw and write the name for each of the weather conditions in the pictures above.



**Reflect** – Did repeating the words many times help you to remember them better?  
Did you enjoy repeating them in the game?



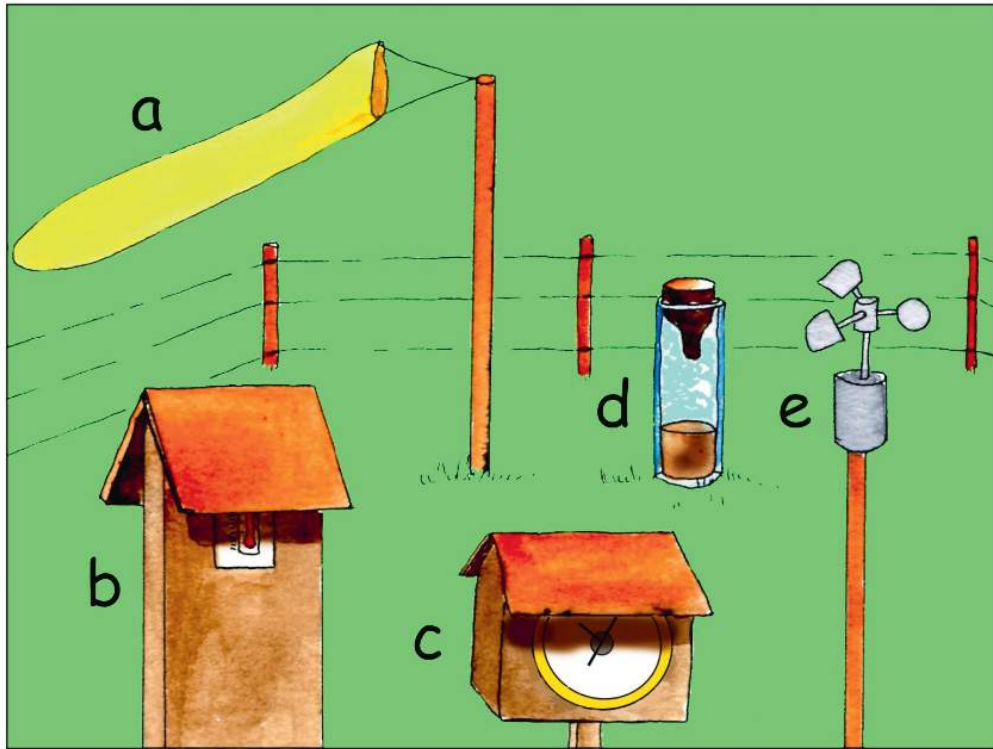
**Homework** – Can you think of any other games you could play with the cards that would help you to learn English?

## Lesson 8: Weather forecasting

### Activity 1



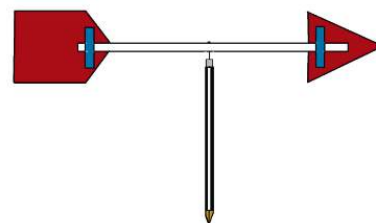
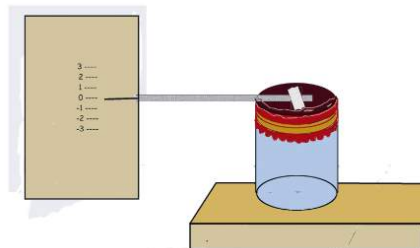
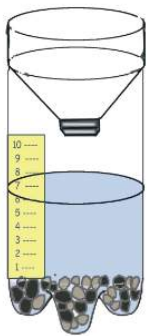
Look at the instruments for measuring weather in the picture below. They all help us with forecasting what the weather will be like in the future. Match the words on the board to each instrument?



### Activity 2



Your teacher will help you to plan how to make your own weather measuring instruments.



### Activity 3



List the names of the instruments that measure the weather.

Complete the gaps in these sentences.

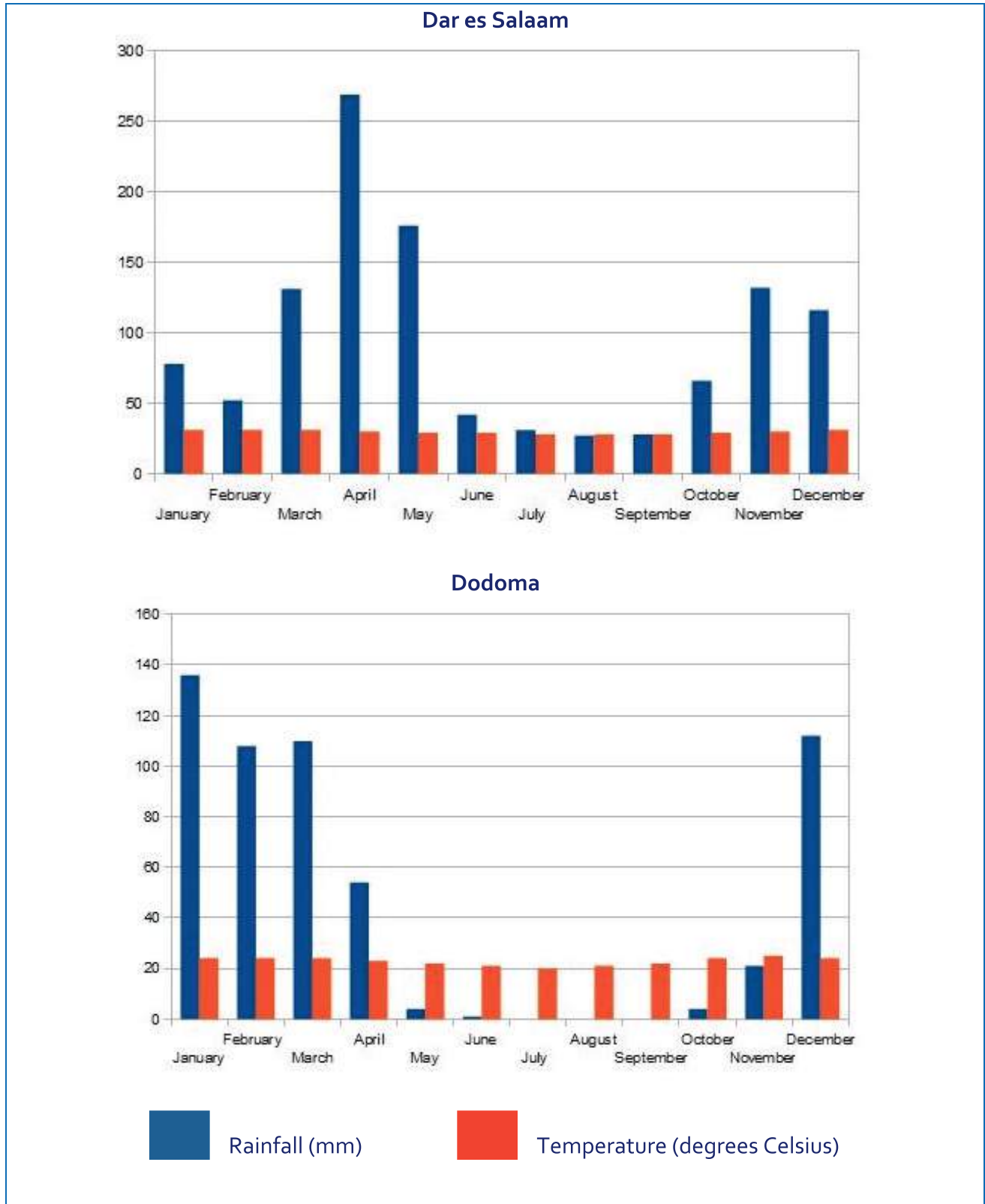
- a) We measure rainfall using a \_\_\_\_\_ .
- b) Wind \_\_\_\_\_ is measured using a wind sock.
- c) An anemometer measures wind \_\_\_\_\_ .
- d) \_\_\_\_\_ is measured by a barometer.
- e) A thermometer measures air \_\_\_\_\_ .



**Reflect** – Would you like to measure the weather at school? What kind of weather do you like best?

## Lesson 9: Our climate

### Activity 1



The graphs show the **a)** \_\_\_\_\_ and **b)** \_\_\_\_\_ in both Dar es Salaam and Dodoma. Temperature is measured in **c)** \_\_\_\_\_. Rainfall is measured in **d)** \_\_\_\_\_. The climate in the **e)** \_\_\_\_\_ is a little different to Central, Western and Southern Tanzania. The temperature in most places in Tanzania does not **f)** \_\_\_\_\_ much during the year. It is a little **g)** \_\_\_\_\_ and much **h)** \_\_\_\_\_ in Dar es Salaam than in **i)** \_\_\_\_\_.

Our climate is changing because of **j)** \_\_\_\_\_. Global warming is caused by emission of **k)** \_\_\_\_\_ and the use of **l)** \_\_\_\_\_ in aerosol cans. **m)** \_\_\_\_\_ in the air causes acid rain which destroys the land and trees.

a result of... a consequence of... because of...

climate change pollution CFCs global warming grass

clean air rainfall temperature degrees Celsius millimetres

change hotter wetter Dodoma greenhouse gases East

Activity 2



Picture A shows a picture of Tanzania that has been protected and looked after and picture B shows what Tanzania might look like if we don't take care of our environment. Use the words and phrases in the box to write sentences about the two pictures.

A



B



## Lesson 10: Conserving our environment

### Activity 1



conserve bush fires water the environment plant trees  
 deforestation pollution recycle poach protect overgraze  
 factory cut down waste cattle plant

### Activity 2



Write sentences using the words from the box and the structures below:  
 To prevent... we should...    If we (don't)... we will...    ...is damaging the environment.