



SCIENTIFIC ENGLISH

SCIENCE

GRADE **6**

GRADE 5 VOCABULARY REVIEW

TODAY'S SCIENCE KEYWORDS



Look at some of the keywords from grade 5. Write the meaning of the word and draw a picture or give an example. The first one is done for you.



KEYWORD	COPY HERE	MEANING	PICTURE or EXAMPLE
Living things		Things that grow, move, reproduce, need nutrition, excrete, are sensitive	
Breathe			
Life cycle			
Carnivore			

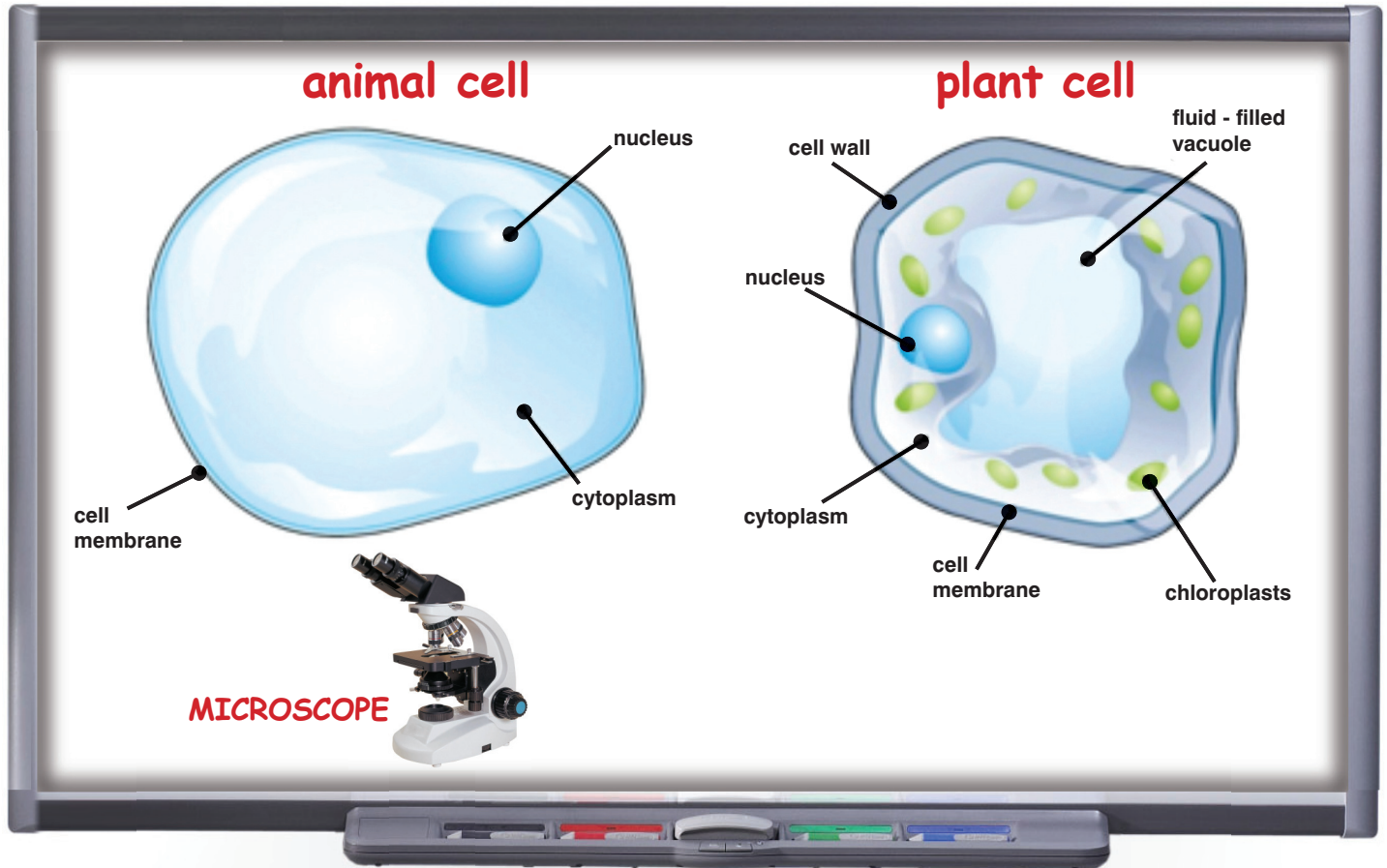
GRADE 5 VOCABULARY REVIEW

KEYWORD	COPY HERE	MEANING	PICTURE or EXAMPLE
Producer			
Dissolve			
Evaporation			
Pollution			
Static electricity			
Force meter			

ANIMAL AND PLANT CELLS

KEYWORDS:

microscope magnification nucleus cell membrane
cytoplasm cell wall chloroplast



Hello boys and girls. We are going to talk about cells today. There are two types of cells (plant and animal cells). Both cells have a nucleus. (This controls the cell activity). We can see these parts of a cell when we use a microscope with the correct magnification. Look at the board and tell me about the other parts!

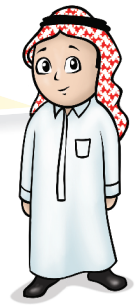


I'll start with animal cells.

Cytoplasm - A jelly-like material.

Cell membrane - A boundary that protects the cell.

ANIMAL AND PLANT CELLS



Now for plant cells:

Chloroplast - This is where the plant converts the sun's energy to make food.

Cell wall - This gives the cell shape and support

Vacuole - The plant stores its food here.

Task 1:

Choose the correct answer. Is it a, b or c?

- The is in a plant cell and an animal cell.
a) vacule **b) nucleus** c) cell wall
- The helps plant cells have shape.
a) cell membrane b) cholplast **c) cell wall**
- Both cells have a It is a boundary that protects the cell.
a) cell membrane **b) nucleus** c) cytoplasm
- Plant cells keep their food in the
a) vacule b) nucleus c) cell wall

Task 2:

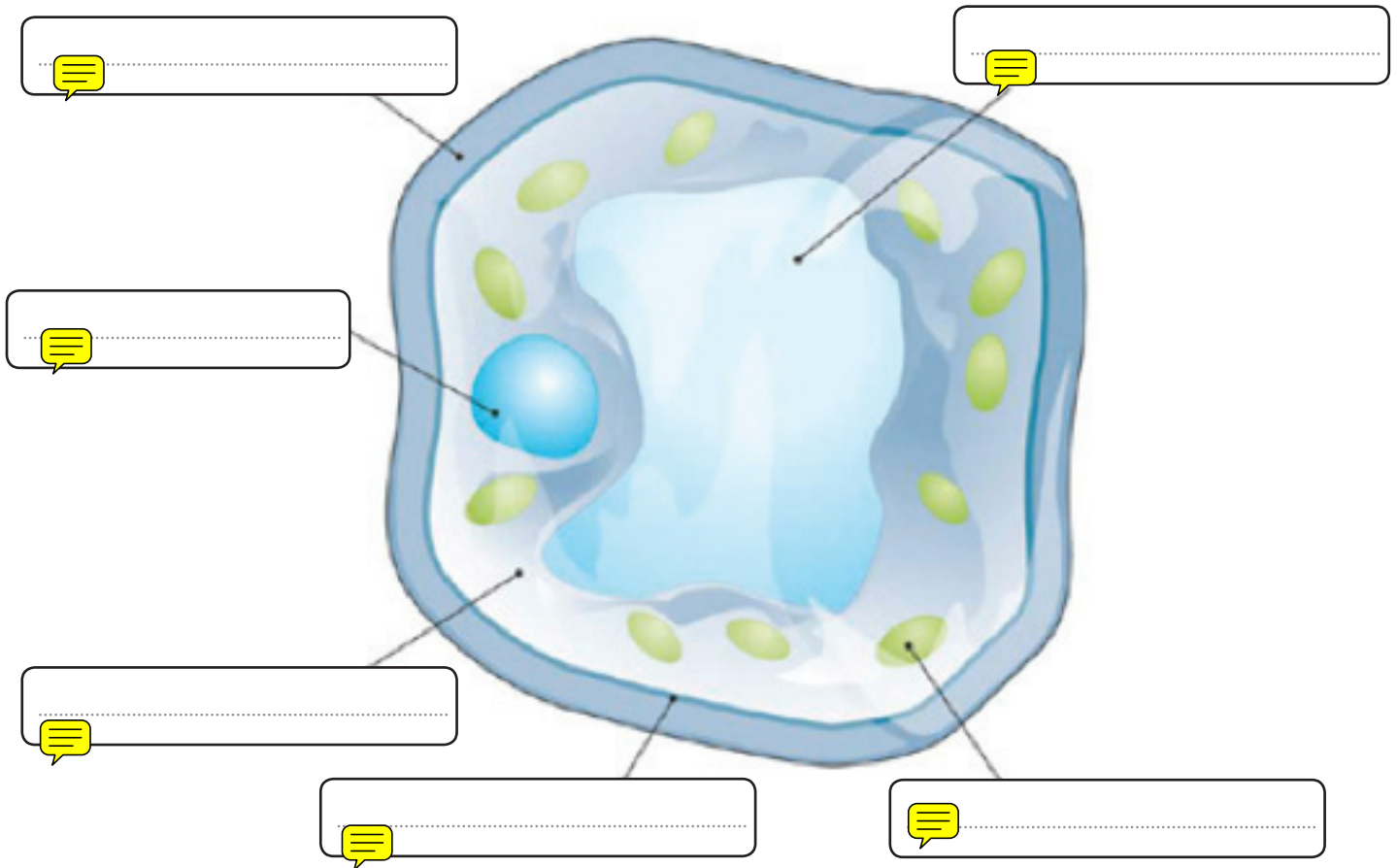
Match the two parts to make sentences. Draw lines.

- | | | | | |
|---|---------------|---|----|---|
| 1 | microscope | → | a) | This is a jelly-like material. |
| 2 | cell membrane | → | b) | This is used to help us see cells in close-up. |
| 3 | cell wall | → | c) | This protects the cell. It is like a boundary. |
| 4 | cytoplasm | → | d) | Plants cells have this and it gives them shape and support. |
| 5 | nucleus | → | e) | This controls the cell activity. |
| 6 | chloroplast | → | f) | Here the Sun's energy is converted to food for the plant. |

ANIMAL AND PLANT CELLS

Task 3:

Label the diagram fully: What type of Cell is it?



Task 4:

Ask a partner these questions. Take turns.

Which cells are found in animals?

Which cells are found in plants?

Which cells contain chloroplast?



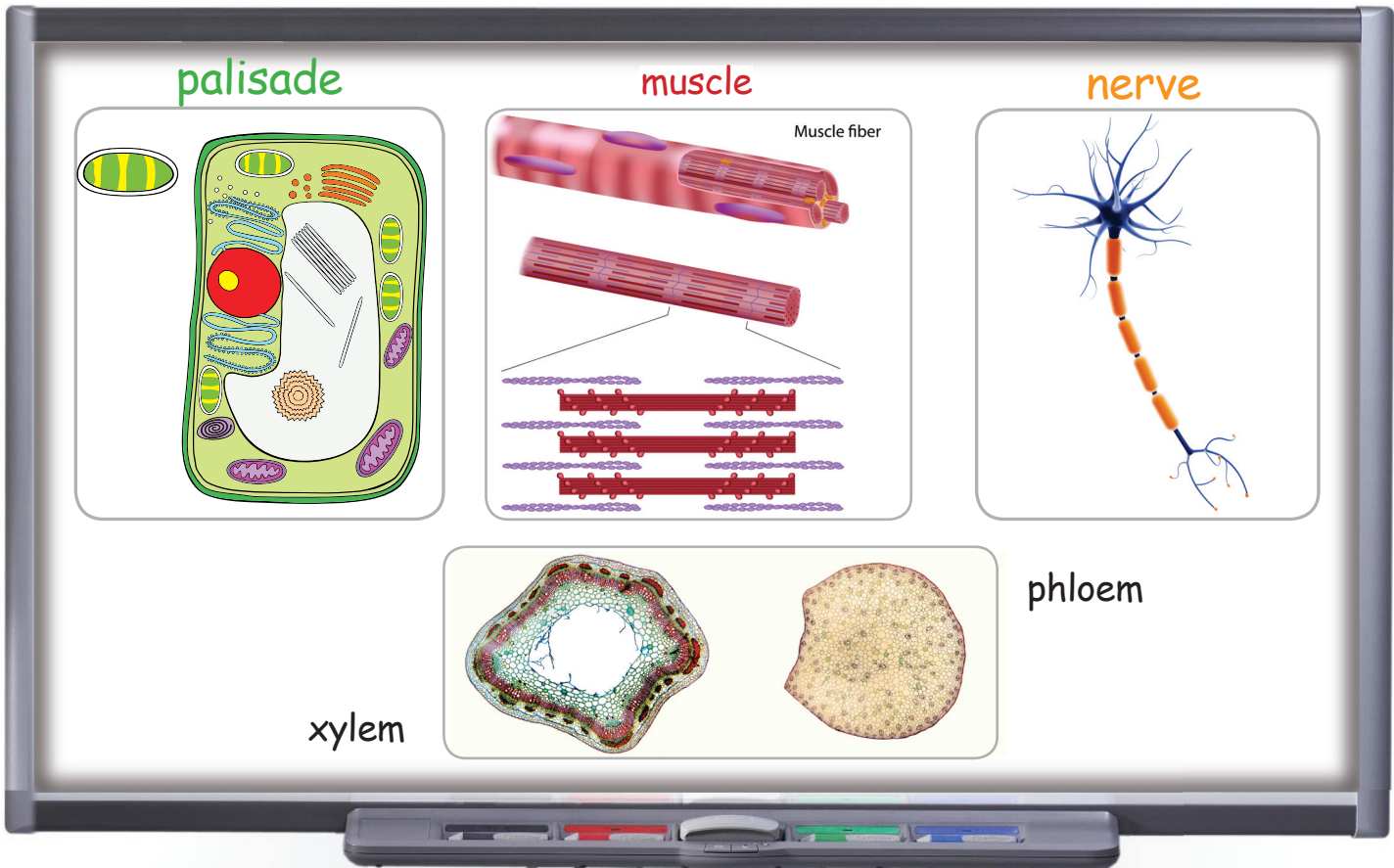
SPECIALISED CELLS

KEYWORDS:

specialised cells
palisade

muscle cell
xylem

nerve cell
phloem



Hello Class. Do you remember our lesson about **specialised cells**? A cell with a special job is called a **specialised cell**. Look at the board and tell me about them.



I'll tell you about animal cells.

Muscle cells can change their length to help us move.

Nerve cells carry messages around the body. They can be 2 metres long.



Remember, an organ is made up of a group of cells.

SPECIALISED CELLS

Palisade cells have chloroplasts to help plants make food by photosynthesis.

Xylem transports water and minerals from roots to the rest of the plant.

Phloem transports water and food from the leaves to the rest of the plant.



Task 1:

Complete the following sentences by matching the two parts. Draw lines.

- | | | | |
|---|----------------------------------|----|---------------------------------|
| 1 | An organ | a) | carry messages around the body. |
| 2 | Xylem and phloem cells | b) | so that we can move. |
| 3 | Cells with special jobs | c) | to make food for the plant. |
| 4 | Palisade cells have chloroplasts | d) | transport water in the plant. |
| 5 | Nerve cells | e) | is made up of a group of cells. |
| 6 | We need muscle cells | f) | are called specialised cells. |

SPECIALISED CELLS

Task 2:

Choose the correct answer. Is it a, b or c?

1 Muscle cells, sperm cells and nerve cells are cells.

a) plant

b) palisade

c) animal

2 Palisade cells, xylem and phloem cells are cells.

a) plant

b) palisade

c) animal

3 Palisade cells contain

a) chloroplasts

b) muscles

c) nerves

4 Xylem transports water and

a) minerals

b) roots

c) photosynthesis

5 Phloem transports water from the of the plant.

a) roots

b) nerve

c) leaves



Task 3:

Correct the underlined words below.

1 The nee cell can change its length to help us move.

2 Palisade cells make water for the plant.

3 Xylem transports water from the leaves of the plant.

4 Muscles transports water and food.

SPECIALISED CELLS

Task 4: PUZZLE TIME!

Fill in the crossword below.

Across

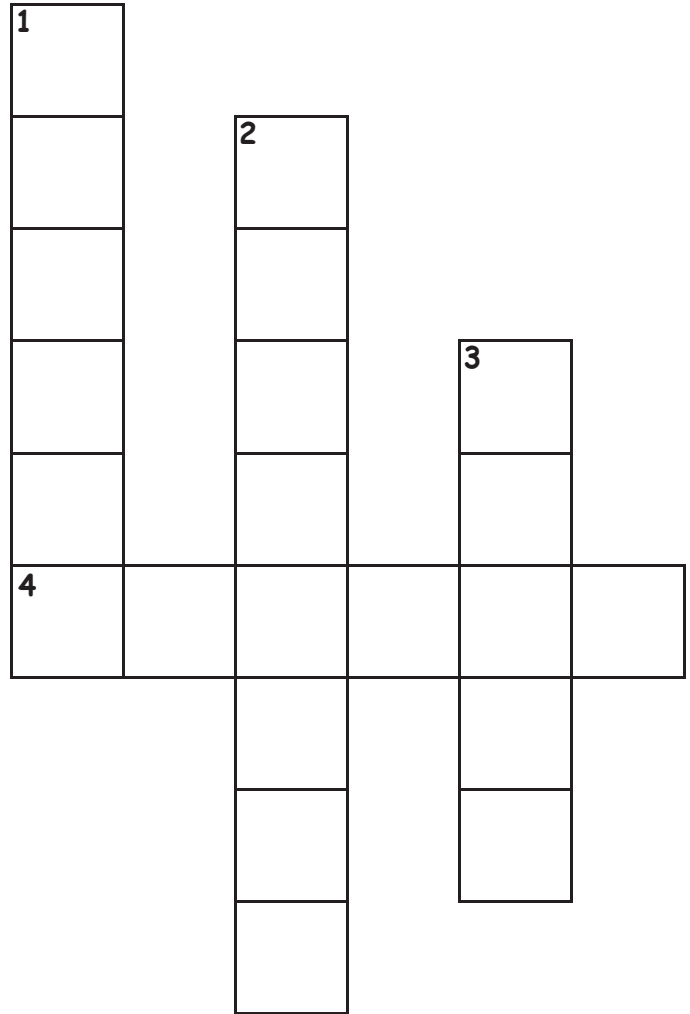
4) cells help with movement of the body.

Down

1) cells carry food from the leaves of the plant.

2) cells have chloroplasts to make food.

3) cells carry minerals from the roots of the plant.



Task 5:

Play this game with a partner. Don't forget to take turns.

I can become long or short to help the body move. What am I?

I carry messages around the body. What am I?



I have chloroplast to help plants make food. What am I?

I transport water and food from leaves. What am I?

BACTERIA AND FUNGI

KEYWORDS:

Microorganism

Bacteria

Fungi

Food poisoning

Fungi

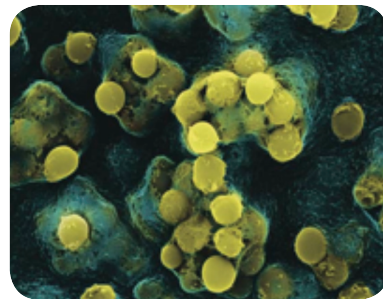


MICROSCOPE



Athlete's foot is caused by a fungus

Bacteria



bacteria causes cholera (lots of vomiting) and food poisoning

Hello boys and girls. We are going to talk about some **microorganisms**. Many living things are so small that they can only be seen through a microscope. These living things are called microorganisms or microbes. Two types of them are bacteria and fungi (the other is viruses)



How does food poisoning happen?



Food poisoning can happen if we eat food has NOT stored, cooked and prepared correctly. Look at this bread - it has microorganisms growing on it - fungi! It has not been stored correctly as it too old!

BACTERIA AND FUNGI



Ah so we can try and stop food poisoning by:

- washing fruit and vegetables
- eating properly cooked meat

Look at what you're eating and smell it, too. If something looks or smells different from normal, check with an adult before eating or drinking it. Milk is a good example! Cover and refrigerate food right away.

Task 1:

Choose the correct answer. Is it a, b or c?

- 1 Bacteria and fungi are two types of
a) illnesses b) food **c) microorganisms**
- 2 can cause the skin on your feet to become itchy and uncomfortable.
a) bacteria b) insects **c) fungi**
- 3 To try and stop food poisoning you should
a) only eat meat **b) wash fruit and vegetables**
c) eat food from the fridge only

Task 2:

Match the two parts to make sentences. Draw lines.

- 1 Microorganisms ← a) Small living things.
- 2 Bacteria ← b) When you have this you feel ill.
- 3 Fungi ← c) They grow on fruit and vegetables that have been sitting for a long time.
- 4 Food poisoning ← d) This can cause you to vomit a lot.

BACTERIA AND FUNGI

Task 3:

Find the words in the word search.

BACTERIA		FOOD		FUNGI		MICROORGANISM		POISONING						
O	C	F	M	C	E	X	T	K	L	M	B	W	S	U
N	M	F	N	T	K	M	U	D	C	I	H	X	E	D
X	E	I	K	I	A	B	G	Q	T	C	E	H	S	E
Z	Q	N	G	P	P	R	E	R	P	R	B	B	F	N
U	I	W	G	N	X	N	D	F	U	O	V	I	D	H
S	V	K	I	I	U	Y	O	P	L	O	L	S	Y	K
W	S	K	Q	M	E	F	O	K	B	R	G	V	T	F
O	B	V	B	C	J	I	F	H	P	G	V	M	K	G
F	L	G	T	W	S	E	L	H	C	A	B	B	S	F
A	T	E	L	O	P	C	Z	V	O	N	I	O	R	J
B	Z	S	N	L	P	K	K	A	J	I	W	G	Y	G
L	A	I	R	E	T	C	A	B	X	S	C	V	P	U
O	N	J	S	S	P	E	U	C	I	M	H	X	A	H
G	I	A	A	M	T	B	I	M	B	J	R	Y	R	A
S	G	O	Y	G	Q	P	U	M	D	T	K	K	G	Z

Task 4:

Ask a partner these questions. Take turns.

What are microorganisms?

What happens to milk when you leave it outside of the fridge too long?



How can fungi affect you?

Why should we make sure we eat well cooked food?

HARMFUL MICROORGANISMS

KEYWORDS:

microorganism contaminate/contamination
transmission infect/infection epidemic pandemic

CONTAMINATION



River getting contaminated.

TRANSMISSION



This insect is carrying disease.

INFECTION



This finger is infected.

Hello! Today we are going to talk about

microorganisms.

Microorganisms are tiny living things that we can't see with our eyes. We need a microscope to see them. Look at the board and tell me about

contamination, transmission and **infection.**



This is a microscope, it helps us see the microorganisms.

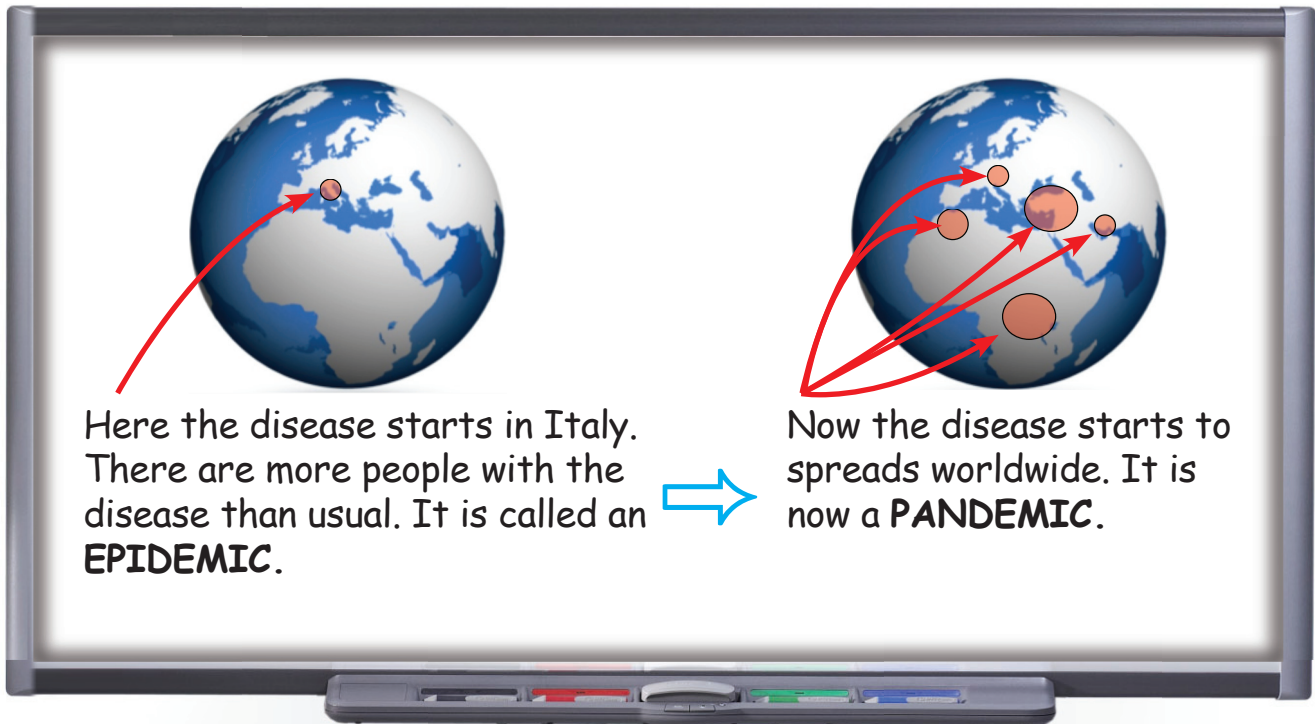
Contamination is when unwanted **microorganisms** go into another substance. This can happen when surfaces are dirty. An **infection** is when unwanted **microorganisms** grow and spread inside your body.



Transmission of disease is to pass harmful **microorganisms** from one person or group to another.



HARMFUL MICROORGANISMS



Hello. Today we are going to talk about "**epidemic**" and "**pandemic**". They are both used to describe widespread outbreaks of a disease but there are some subtle differences between the two words.

An **epidemic** happens when there are more cases of that disease than normal.

A **pandemic** is a worldwide epidemic of a disease.



Ok, I get it now. But what kinds of diseases spread?

There are lots of diseases. Some were pandemics before, but now with medicines they are controlled. Let's look at some of the diseases.

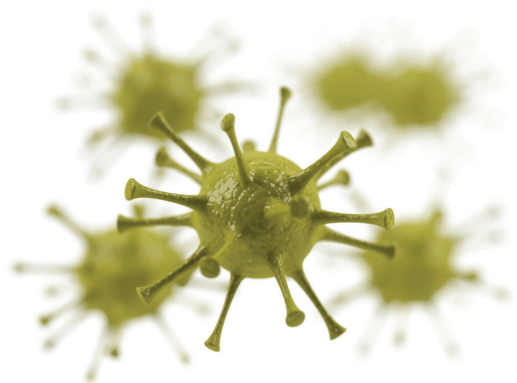


HARMFUL MICROORGANISMS

Task 1:

Match the two parts to complete the sentences below.

- | | | | |
|---|-------------------------|----|---|
| 1 | Contamination | a) | movement of harmful organism from one person or group to another. |
| 2 | Transmission of disease | b) | unwanted microorganisms growing and spreading inside your body. |
| 3 | Infection | c) | movement of unwanted microorganisms to another substance. |
| 4 | Microorganism | d) | something we use to see microorganisms. |
| 5 | Microscope | e) | very small living things that you can't see. |
| 6 | Epidemic | f) | more people than normal have the disease. |
| 7 | Pandemic | g) | a worldwide disease. |



HARMFUL MICROORGANISMS

Task 2:

Choose the correct word from the box below to fill in the blanks.

microorganisms transmit microscope contaminated infected

- 1 When unwanted microorganisms go into clean water, we say the water is
- 2 We say that you your sickness when you are sick and then your brother gets the same sickness.
- 3 Unwanted microorganisms are inside your body and they are making you ill. We say that you are with an illness.
- 4 We use a to see



Task 3: WORK WITH A FRIEND.

Ask and answer the following questions. Don't forget to take turns.

What does transmission of disease mean?

What is contamination?

What does infection mean?

What are microorganisms?

What is a pandemic?

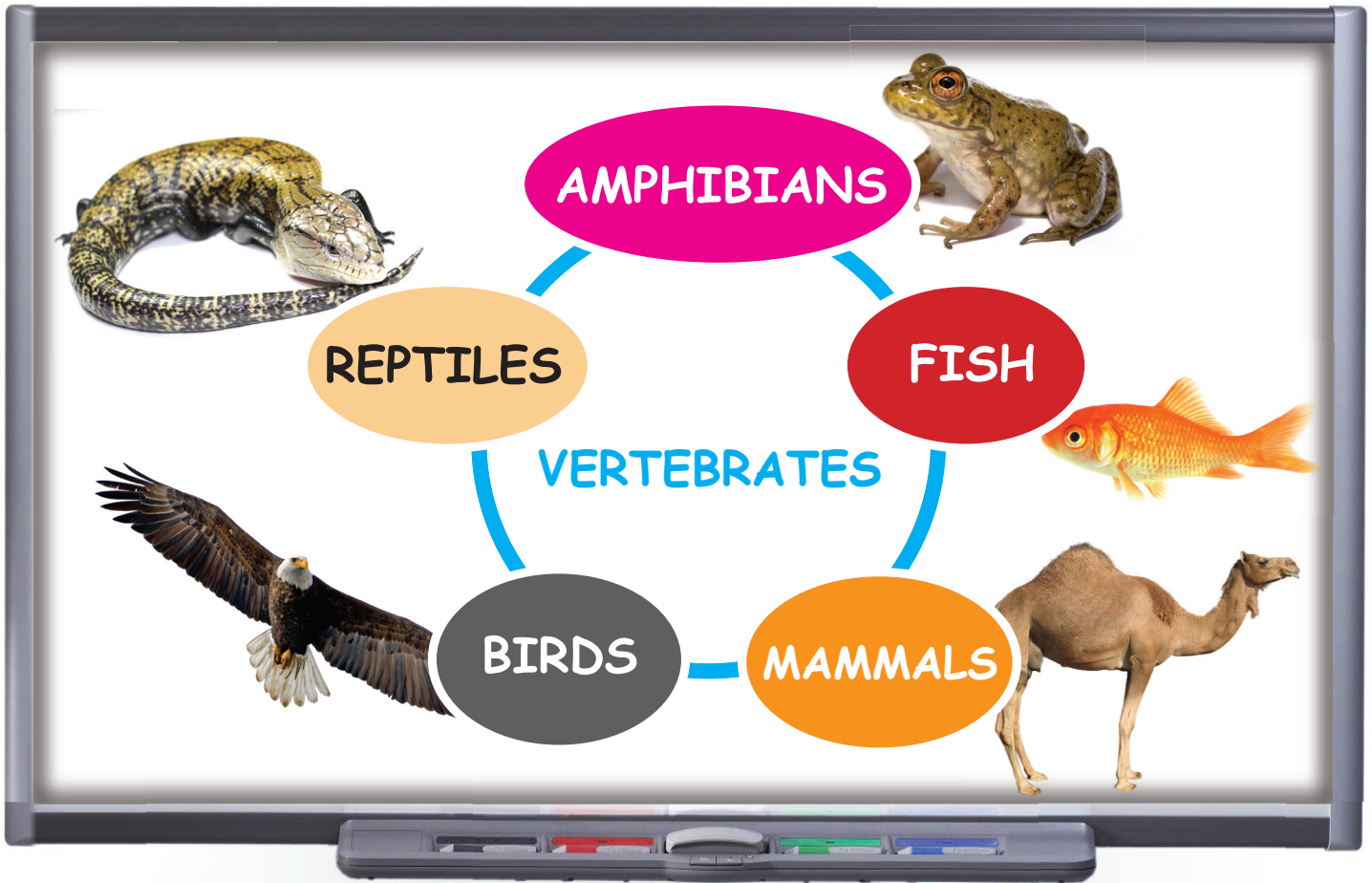
What is a microscope?



VERTEBRATES

KEYWORDS:

vertebrates mammals reptiles
 fish birds amphibians invertebrates



The animal kingdom is classified into two large groups, **vertebrates** and **invertebrates**. Today we will look at vertebrates in detail.

Vertebrates are animals that have backbones, and we further divide these into five groups. Look at the board and tell me about them.



VERTEBRATES



Mammals like humans, cats and dogs, have hair and they make milk for their young.

Birds like falcons, eagles and hawks have wings and feathers. They lay eggs.

Fish like hamour and tuna have scales and they live in water.

Reptiles like geckoes and snakes have dry, scaly skins. They lay eggs.

Amphibians, like frogs and salamanders, have a moist skin. They start their lives in water and can later live on land and in water.



Task 1:

Complete the sentences by matching the two parts. Draw lines.

- | | | | |
|---|-------------|----|--------------------------------|
| 1 | Birds | a) | make milk for their young. |
| 2 | Reptiles | b) | live in water. |
| 3 | Fish | c) | are covered with feathers. |
| 4 | Mammals | d) | can live in water and on land. |
| 5 | Vertebrates | e) | have dry, scaly skins. |
| 6 | Amphibians | f) | are animals with a backbone. |

Task 4: PUZZLE TIME!

Fill in the puzzle.

Across

3) lay eggs. They have wings.

5) start their lives in water.

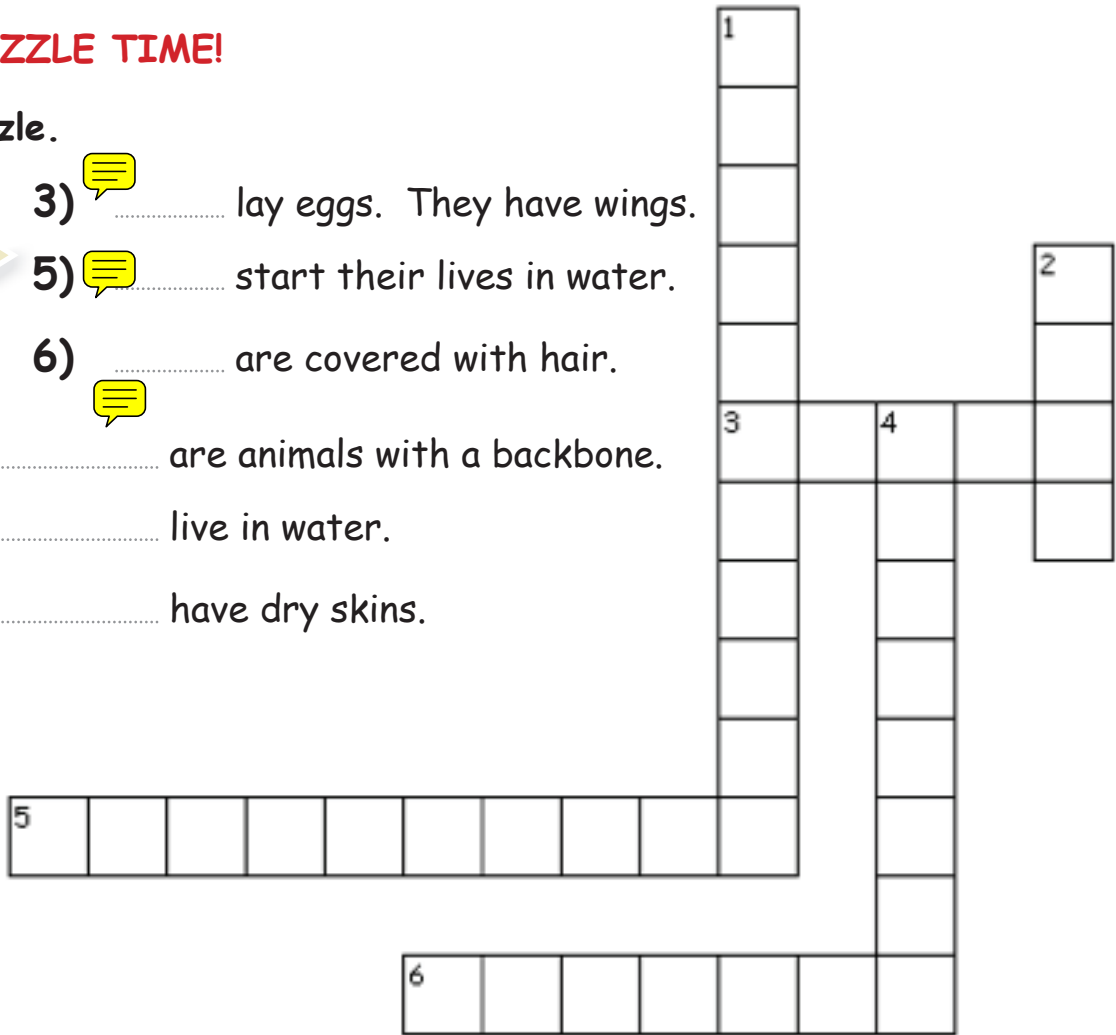
6) are covered with hair.

Down

1) are animals with a backbone.

2) live in water.

4) have dry skins.



Task 5: WORK IN PAIRS.

Ask your partner the following questions.

I can live in water and on land. What am I?

I am covered with feathers. What am I?

I have a scaly skin. What am I?

I live in water. What am I?

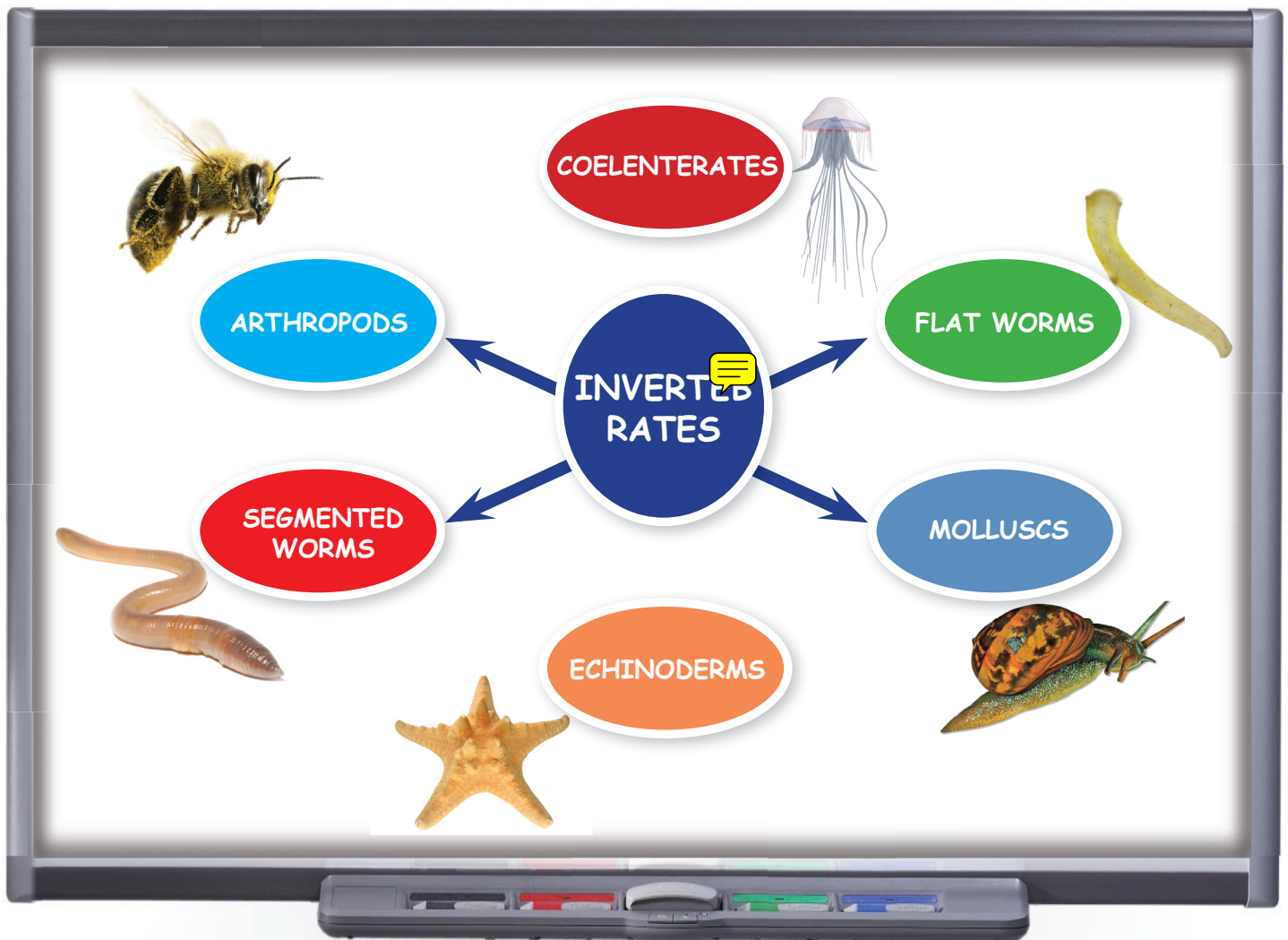
I make milk for my young. What am I?



INVERTEBRATES

KEYWORDS:

invertebrate coelenterate segmented worm
mollusc echinoderm flat worm arthropods



Today we are going to study **invertebrates**, the second largest group in the animal kingdom. They are animals without a backbone. Look at the board and tell me about the different classes of animals.



INVERTEBRATES



Coelenterates have soft bodies and live in water. For example, jelly fish. They live in water and have soft bodies.

Segmented worms have soft bodies that are divided into segments. They live in water and on land. For example, earthworms.

Molluscs have soft bodies and often have a shell. They live in water and on land. For example, snails.

Echinoderms have hard skins and they live in water. For example, star fish.

Flat worms have flat bodies. They live in water. For example, planaria.

Arthropods have jointed legs. They live in water and on land. For example, insects.



Task 1:

Match the two parts. Draw lines.

- | | | |
|-------------------|---|----------------|
| 1 Mollusc | → | a) Star fish |
| 2 Flat worms | → | b) Jelly fish |
| 3 Coelenterates | → | c) Snails |
| 4 Segmented worms | → | d) Insects |
| 5 Echinoderms | → | e) Planaria |
| 6 Arthropods | → | f) Earth worms |



INVERTEBRATES

Task 2:

Choose the correct answer from the box below and fill in the blanks.

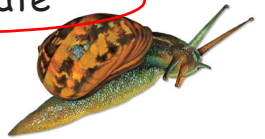
arthropods echinoderms invertebrates segmented worm molluscs

- do not have a backbone.
- Coelenterates, and flat worms live in water.
- Segmented worms, and arthropods can live in water and on land.
- have jointed legs.
- The body of a is divided into parts.

Task 3:

Work with a partner. Choose the correct answer. Is it a, b, or c?

- A jelly fish is a that lives in water.
a) mollusc b) arthropod c) coelenterate
- A can live on land or in water.
a) segmented worm b) flat worm c) coelenterate
- A star fish is a/an with a hard skin.
a) mollusc b) coelenterate c) echinoderm
- like flies and bees have jointed legs.
a) Segmented worms b) Arthropods c) Flat worms
- The planaria has a flat body and lives
a) in water b) on land c) in water and on land



INVERTEBRATES

Task 4:

Draw lines to match the words with the pictures.

mollusc

echinoderm

flat worm

segmented worm

coelenterate

arthropod

planaria

earth worm

jelly fish

insect





snail

star fish

CLASSIFYING PLANTS

KEYWORDS:

Flowering plants non-flowering plants ferns mosses
 liverworts conifers dicotyledon monocotyledon

Flowering	Non-flowering
 	 



Hello boys and girls. We are going to talk about plants and how to classify them. As you can see from the board there are two main groups for plants; Flowering (those that have flowers) and non-flowering (those that don't have flowers).



Ah ! I see and the two groups are further classified...



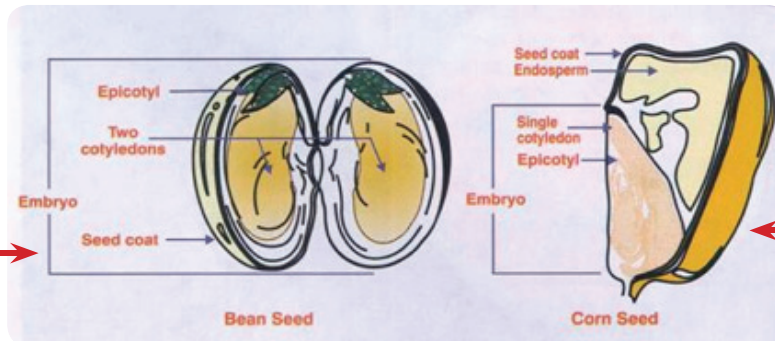
Correct, look at the table below:

Flowering	Dicotyledon	The seeds have two parts - inside a chick peas	
	Monocotyledon	The seed is one part - inside a piece of sweet corn	





CLASSIFYING PLANTS



Seed has two parts




Seed has only one part

Non-flowering	Ferns	Fern live in a wide variety of habitats, from remote mountain elevations, to dry desert rock faces, to bodies of water or in open fields.	
	Mosses	They commonly grow close together in clumps or mats in damp or shady locations.	
	Liverworts	Liverworts are small and wide. Some may cover large patches of ground, rocks, trees or any other reasonably firm substrate on which they occur.	
	Conifers	They are usually large plants over huge areas of land, most notably the boreal forests of the northern hemisphere.	

CLASSIFYING PLANTS

Task 1:

Write what type of plant it is:

Task 2:

Match the two parts to make sentences. Draw lines.

- ① Monocotyledon → a) are big and found mostly in the northern hemisphere
- ② Flowering plants → c) Have flowers.
- ③ Mosses → d) Grow close together like a mat in damp areas
- ④ Conifers → b) Have a seed which is in one part

CLASSIFYING PLANTS

Task 3:

Find the words in the word search.

CONIFERS		DICOTYLEDON		FERNS		FLOWERING								
LIVERWORTS		MONOCOTYLEDON		MOSSES		PLANTS								
M	U	S	V	C	Q	S	I	E	L	F	D	X	J	U
M	O	F	R	M	L	Q	N	I	N	S	I	Q	C	E
Q	D	N	J	E	E	H	V	O	E	L	C	F	R	F
F	D	N	O	D	F	E	G	S	S	U	O	N	X	Q
V	F	K	N	C	R	I	S	Y	O	P	T	Q	V	L
N	J	O	T	W	O	O	N	L	I	S	Y	T	I	J
U	B	B	O	I	M	T	U	O	T	J	L	M	D	S
F	E	R	N	S	N	X	Y	P	C	V	E	K	J	T
D	T	X	P	B	R	V	K	L	R	P	D	T	U	N
S	K	D	I	T	G	N	I	R	E	W	O	L	F	A
Z	N	F	F	J	J	W	C	N	M	D	N	C	V	L
H	T	P	N	V	K	A	F	Z	K	V	O	S	D	P
E	Z	Z	F	O	I	T	X	A	U	F	E	N	C	B
J	E	B	N	B	B	Y	L	R	J	U	E	B	L	V
B	M	K	P	B	Y	Y	N	B	W	Q	I	F	V	O

Task 4:

Ask a partner these questions. Take turns.

What does Dicotyledon mean?

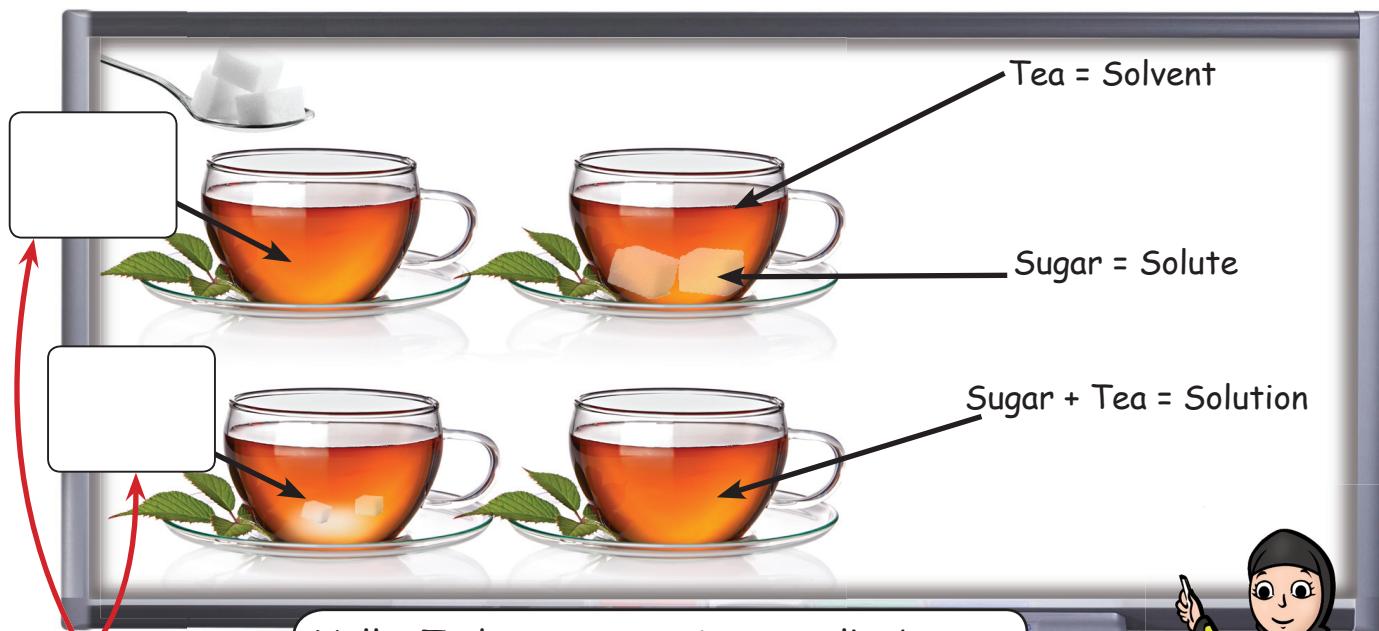


Give an example of a non-flowering plant type.

What type of plant lives in many different habitats?

SOLUBILITY

KEYWORDS: **dissolve** **solute** **solution** **solvent**
 soluble **insoluble** **miscible** **immiscible**



Hello. Today we are going to talk about **solubility**. When a solid becomes part of a liquid, we say it **dissolves** in the liquid.



The sugar is the **solute** and the tea is the **solvent**. So the **solute** dissolves in the **solvent** and they make a **solution**. Can you label the other arrows?



Yes, look at the board and tell me about solubility.

But... sand cannot **dissolve** in water. Sand is **insoluble** in water, but sugar is **soluble** in water.



Two more important words are **miscible** and **immiscible**. Miscible is when two liquids mix together like water and milk. Immiscible is when two liquids don't mix together like oil and water.

SOLUBILITY

Task 1:



Match the two parts to make correct sentences.

- 1 Solute is a) a liquid that dissolves a solid.
- 2 Solution is b) a solid that dissolves in a liquid.
- 3 Insoluble is c) a solid and a liquid together.
- 4 Solvent is d) something that cannot be dissolved.
- 5 Miscible means e) when two liquids can mix together.

Task 2:

Choose the correct answer. Is it a, b or c?

- 1 Metal cannot dissolve in water. The metal is in water.
a) soluble b) insoluble c) dissolve
- 2 Coffee can dissolve in water. The coffee is in water.
 a) soluble b) insoluble c) dissolve
- 3 Salt and water together make a
a) soluble b) solution c) solvent
- 4 We call the salt the
 a) solute b) solution c) solvent
- 5 We call the water the
a) solute b) solution c) solvent



SOLUBILITY

Task 3: PUZZLE TIME!

Fill in the puzzle.

Across

5) When a solid dissolves in a liquid, they are called a

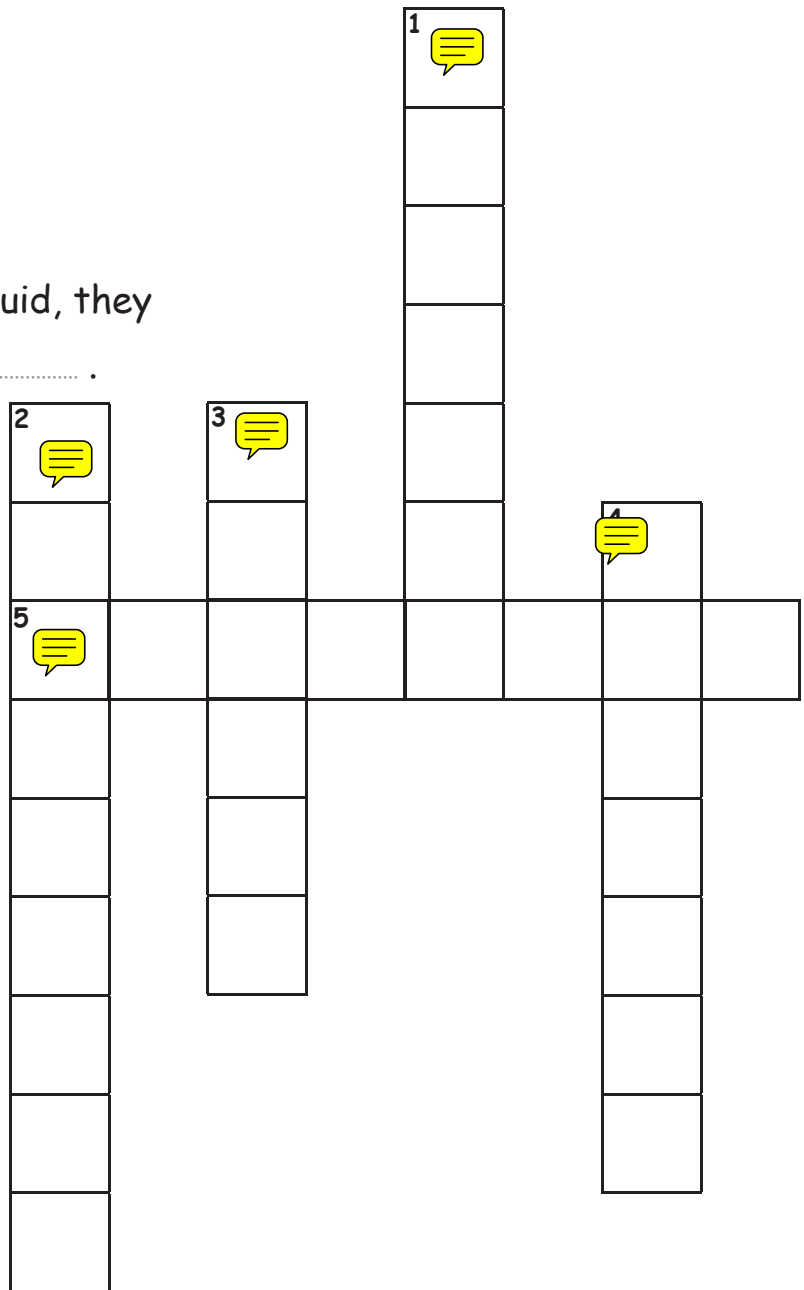
Down

1) A solid dissolves in a liquid. The liquid is the

2) If a solid cannot dissolve in a liquid, the solid is

3) A solid dissolves in a liquid. The solid is the

4) When a solid dissolves in a liquid, we say the solid is



Task 4:

Play this game with your partner. Ask your partner the following questions.

I am a liquid. Solids dissolve in me. What am I?

I can dissolve a solid. What am I?

I cannot dissolve in a liquid. What am I?



I can dissolve in a liquid. What am I?

I am solid. I dissolve in a liquid. What am I?

Oil and water do not mix, we say they are...

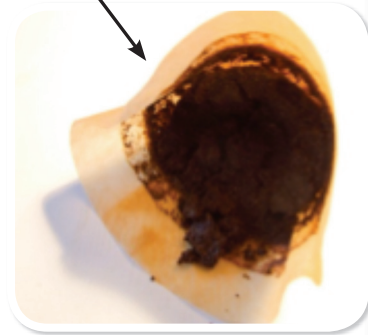
SEPARATING SOLIDS

KEYWORDS:
separate
filter
residue
evaporate
crystal


filter

separated liquid

residue



Hello. Last lesson we talked about solubility and how some substances can dissolve in liquid. Today we will look at how to **separate** solids from liquids to make a pure substance.

Sir, is that like the white substance you sometimes see in dried up puddles near the beach?

Yes, when sea water **evaporates**, the **residue** left behind is a salt **crystal**. Solids can also be extracted from liquids using a **filter**, like when you make a pot of coffee or tea. The soluble particles pass through the **filter** and the solids remain behind.

Ah!... so salt is separated from sea water by evaporation.

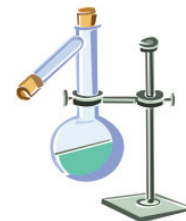
SEPARATING SOLIDS

Task 1:

Choose the correct words from the box below to complete the sentences.

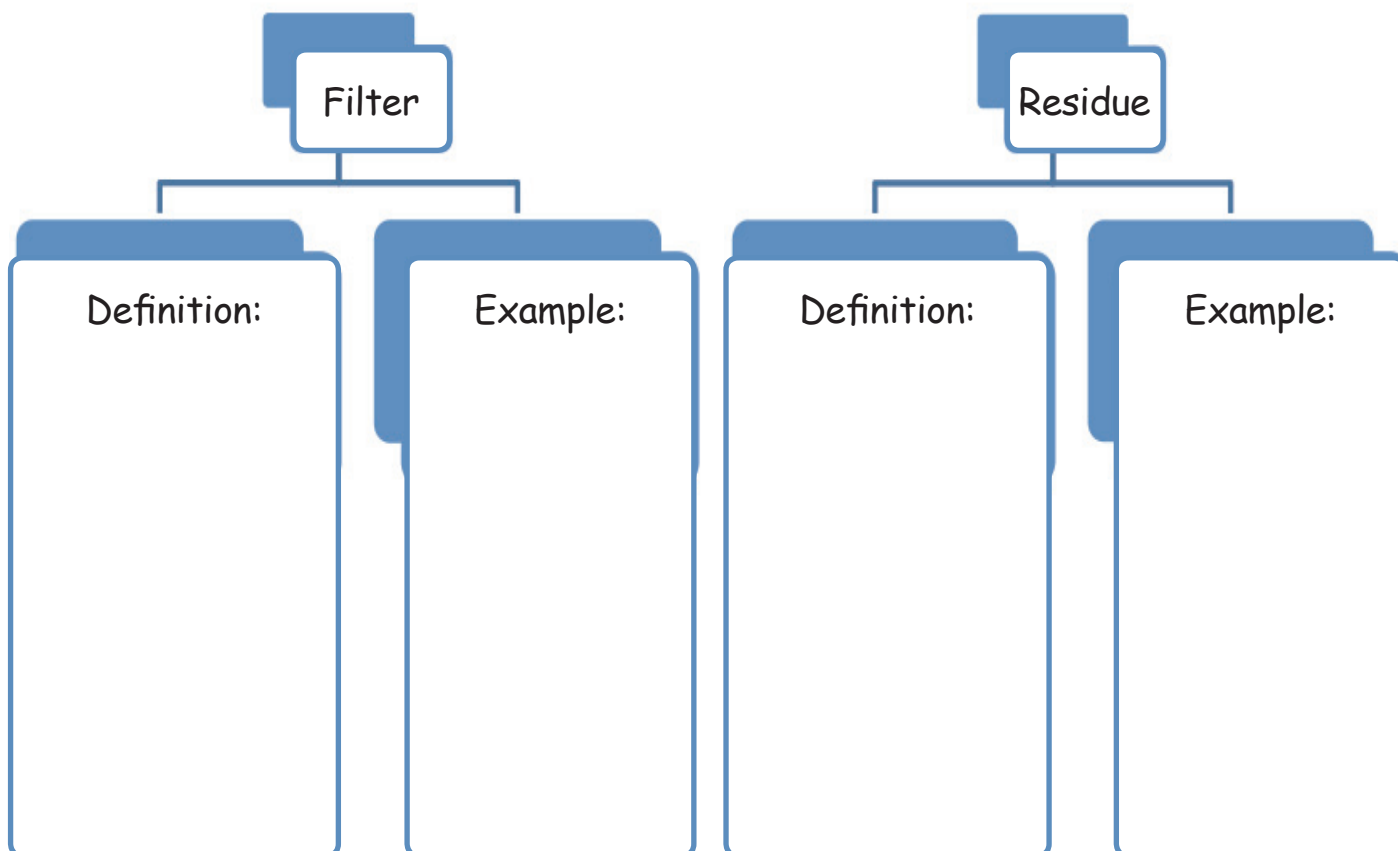
residue evaporate filter crystal separate

- Two processes used to solids from liquids are to and to
- The is the solids remaining after separation.
- When sea water evaporates, it leaves behind a called salt.



Task 2:

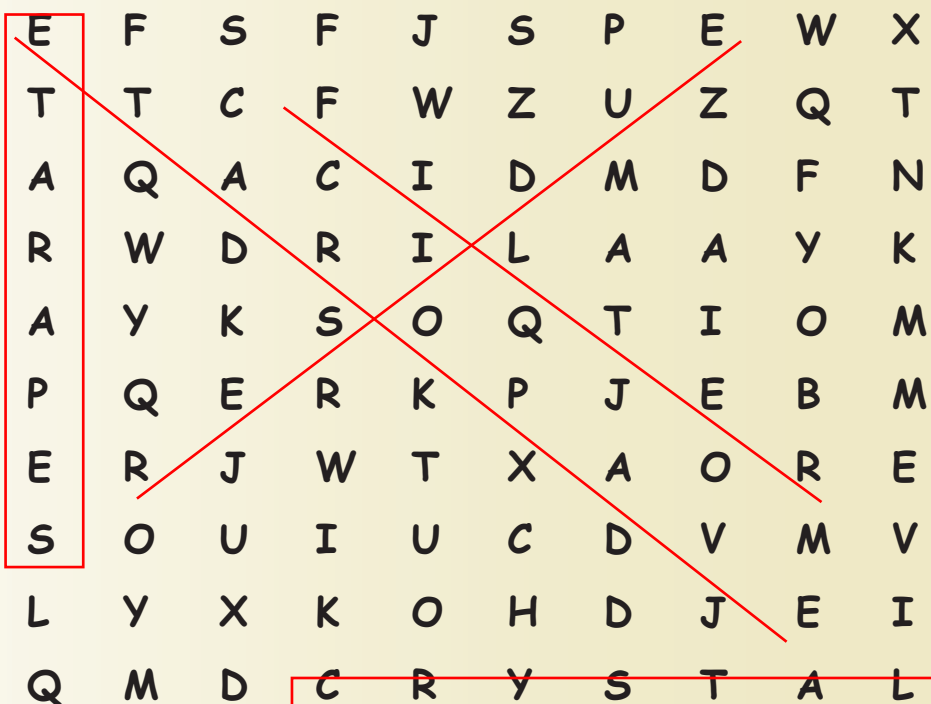
Write a definition and example (you can draw here if you want) for each graphic organiser.



SEPARATING SOLIDS

Task 3:

Find the words in the puzzle.



CRYSTAL

EVAPORATE

FILTER

RESIDUE

SEPARATE

Task 3: PLAY THIS GAME.

Ask your partner the following questions.

I am white. I am found after sea water is evaporated. What am I?

I can be used to separate solids from liquids. What am I?

I am solid. I am the substance separated from liquid. What am I?



THE SUN

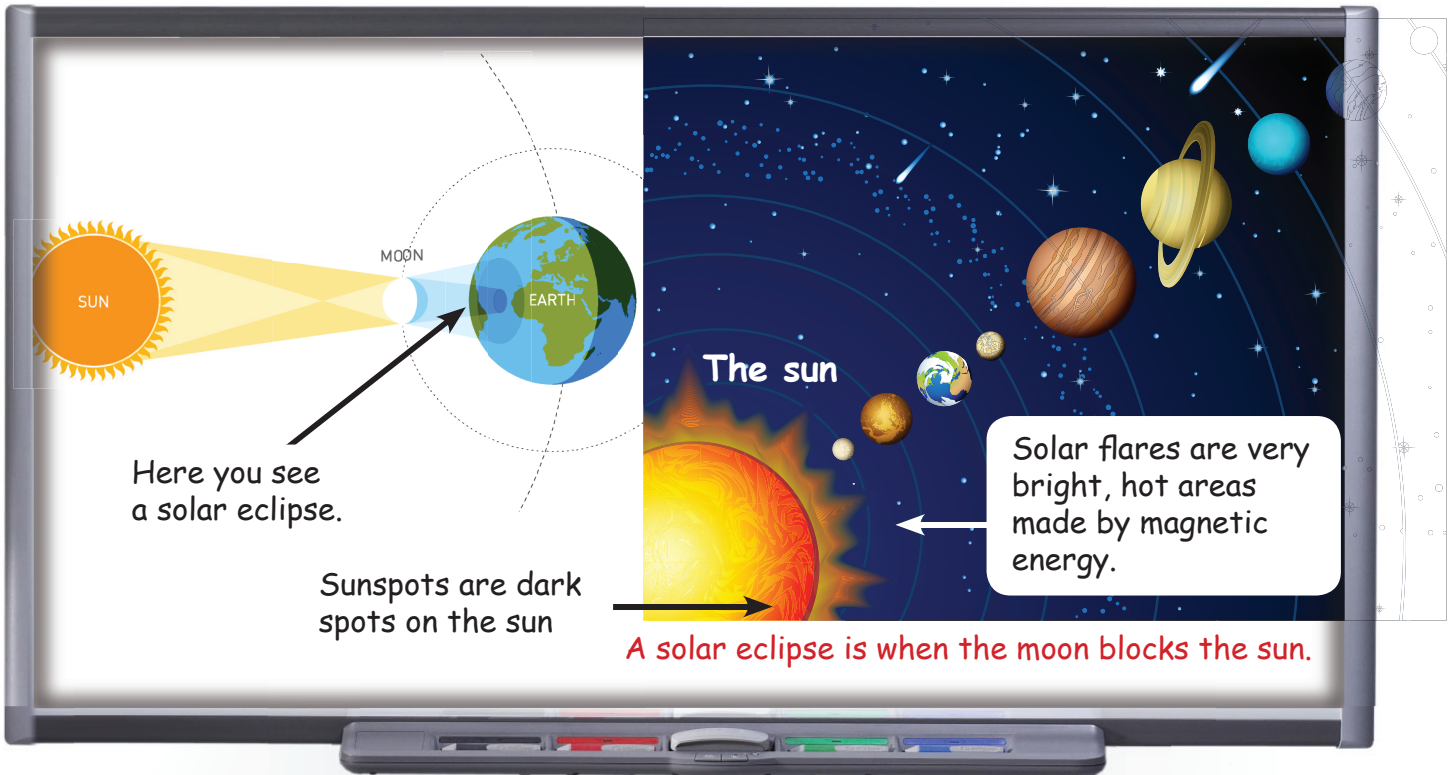
KEYWORDS:

solar system

solar flare

sunspot

solar eclipse



The sun is one of the stars in the Milky Way. It is at the centre of our **solar system**. That's what we will study today. Can you tell me about the solar system?



Yes, this book says that 'solar' is about the sun. The **solar system** is the sun, its planets and everything that goes round it.



But what are sunspots and solar flares? What makes them happen?



Mrs. Amna: Well, as you can see on the board, **sunspots** are dark spots on the surface of the sun. They are made by magnetism. They are less hot than the other parts of the sun.

Fatima: Are solar flares hotter or cooler?

Mrs. Amna: Solar flares are much hotter! **Solar flares** are very bright areas that appear suddenly on the sun. They are made by magnetic energy.

Fatima: And what is a solar eclipse, Miss? My book says it can make places on the earth go dark in the daytime!

Mrs. Amna: That's right, it can. As you can see on the board, a **solar eclipse** is when the moon comes between the sun and the earth. It becomes dark for a short time in some places on the earth. This sometimes happens in Qatar!

Fatima: That's very interesting, Miss, thank you.

Task 1:

Draw line to match the two parts of the following sentences.

- | | | | | |
|---|---------------|---|----|--|
| 1 | Solar eclipse | → | a) | The moon blocks the sun's light. |
| 2 | Sunspots | → | b) | The sun and everything that goes round it. |
| 3 | Solar system | → | c) | Very bright, hot areas on the sun. |
| 4 | Solar flares | → | d) | Small dark areas on the sun's surface. |

THE SUN

Task 2:



Choose the correct answer. Is it a, b or c?

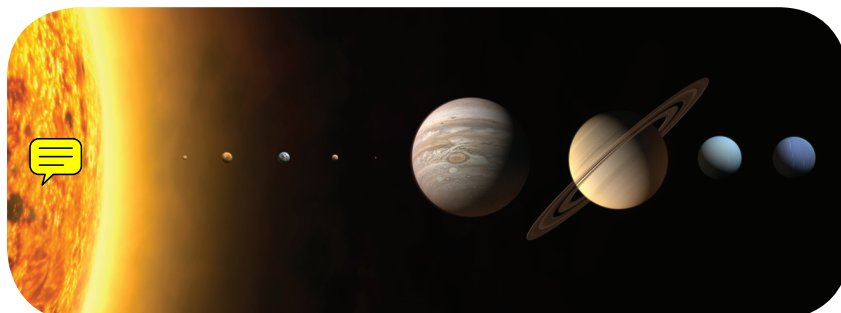
- Solar flares are made by energy.
a) wind **b) magnetic** c) light
- Solar flares are sunspots.
a) as hot as **b) hotter than** c) not as hot as
- Sunspots appear to be areas on the surface of the sun.
a) bright b) hot **c) dark**
- A solar eclipse makes places on the earth become
a) bright b) hot **c) dark**

Task 3: WORK IN PAIRS.

ONE of these sentences is FALSE. Which one is it? Explain why.

- Sunspots are cooler and darker than solar flares. **TRUE** / FALSE
- A solar eclipse happens when the sun, moon and earth are in a line. **TRUE** / FALSE
- A solar flares are not bright. TRUE / **FALSE**
Number is false because

Task 4: Label the sun in the drawing below:



Task 5: WORK IN PAIRS.

Ask and answer the following questions about the sun.



Which are hotter, solar flares or sunspots?

The solar system is.

What makes a solar eclipse happen?

For sure are hotter!

What is the solar system?

It happens when...



Task 6: PUZZLE TIME!

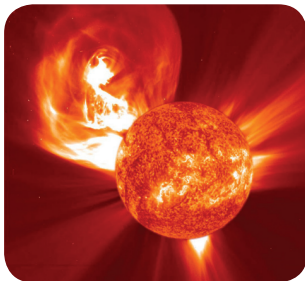
That's excellent! Now work in teams. Complete this crossword about the sun!

Across

3) Solar wind is particles of from the sun.

5) There is an eclipse when the blocks light from the sun.

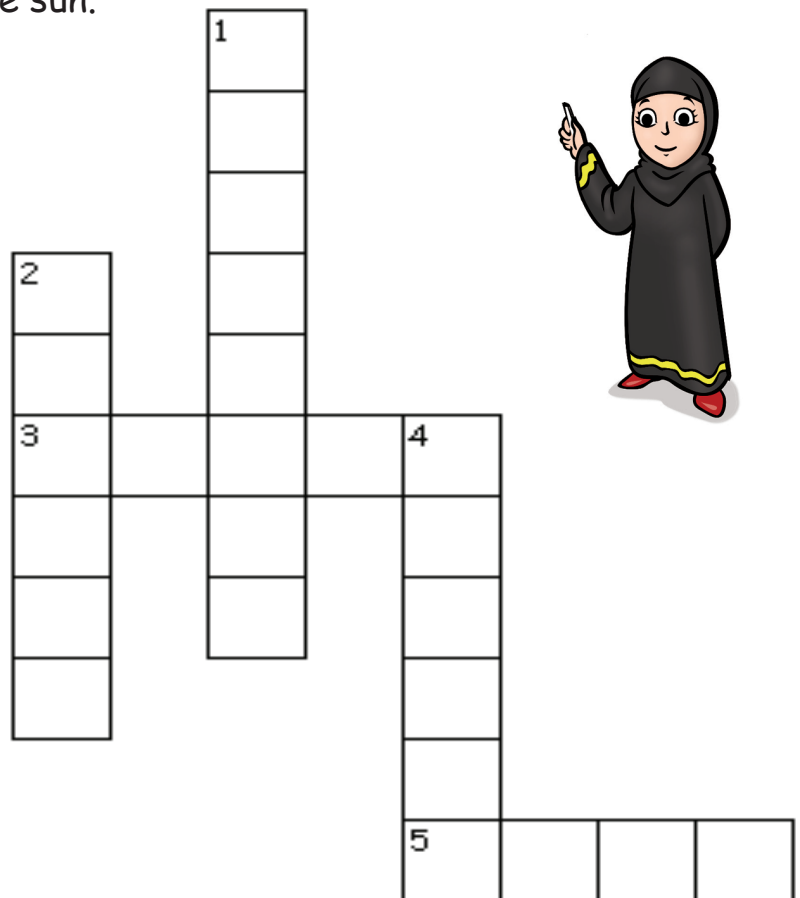
Down



1) These are small, dark areas on the sun.

2) Solar are very bright and very hot! They are made by magnetic energy.

4) The solar is the sun, the earth, the planets and everything else that goes round it.



MOVEMENT OF THE MOON

KEYWORDS:

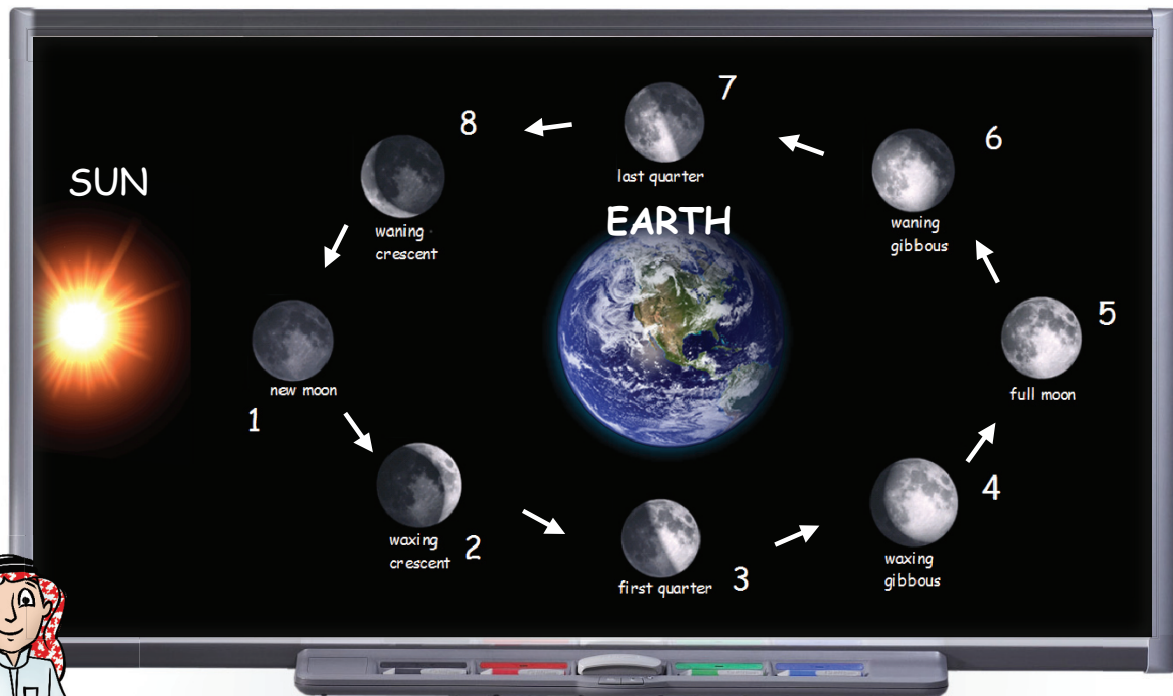
moon

moon phases

crater

reflected light

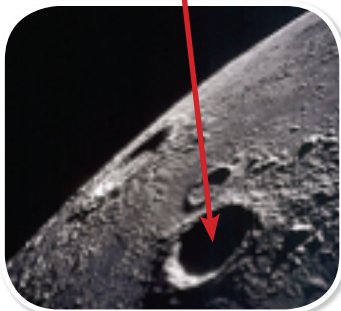
night



The moon changes shape over the period of 29 or 30 days. These we call the **moon phases**. Each phase has a different name.

Look closely at the moon, or use a telescope and you can see big holes on the moon. These are called **craters**.

We can see the moon at night because it reflects the light from the sun.



MOVEMENT OF THE MOON

Sir, why does the moon have a different shape?

Sir, why do we see the moon if it is not giving off light?



Ah! Ok. So where the light shines on the moon, that's the only part we can see! Since the moon is moving around us, it changes!



At night when the sun has set, the moon reflects the sun's light like a mirror.



Task 1:

Choose the correct word from the box below to complete the sentences.

moon phase

reflects

night

craters

moon

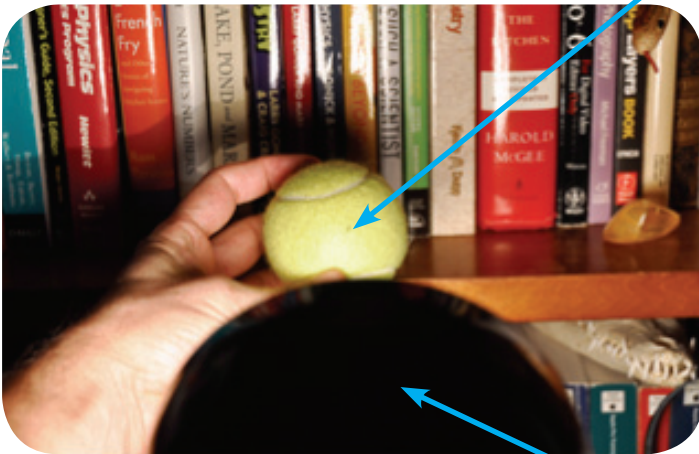
- 1 The shape and appearance of the moon at a particular time is called a
- 2 We see the moon easily at
- 3 The moon light from the sun, so we see it.
- 4 When you look at the moon closely, you can see on it.
- 5 The goes around the earth in approximately 29 or 30 days.

MOVEMENT OF THE MOON

Task 2:

We did an experiment to model the moon and the sun.
Label the moon and the sun on the photo below.

How much of the moon can you see in this model?



.....
.....
.....

.....
.....
.....

Imagine the tennis ball is the moon. Draw the shape of the moon you can see here:



.....

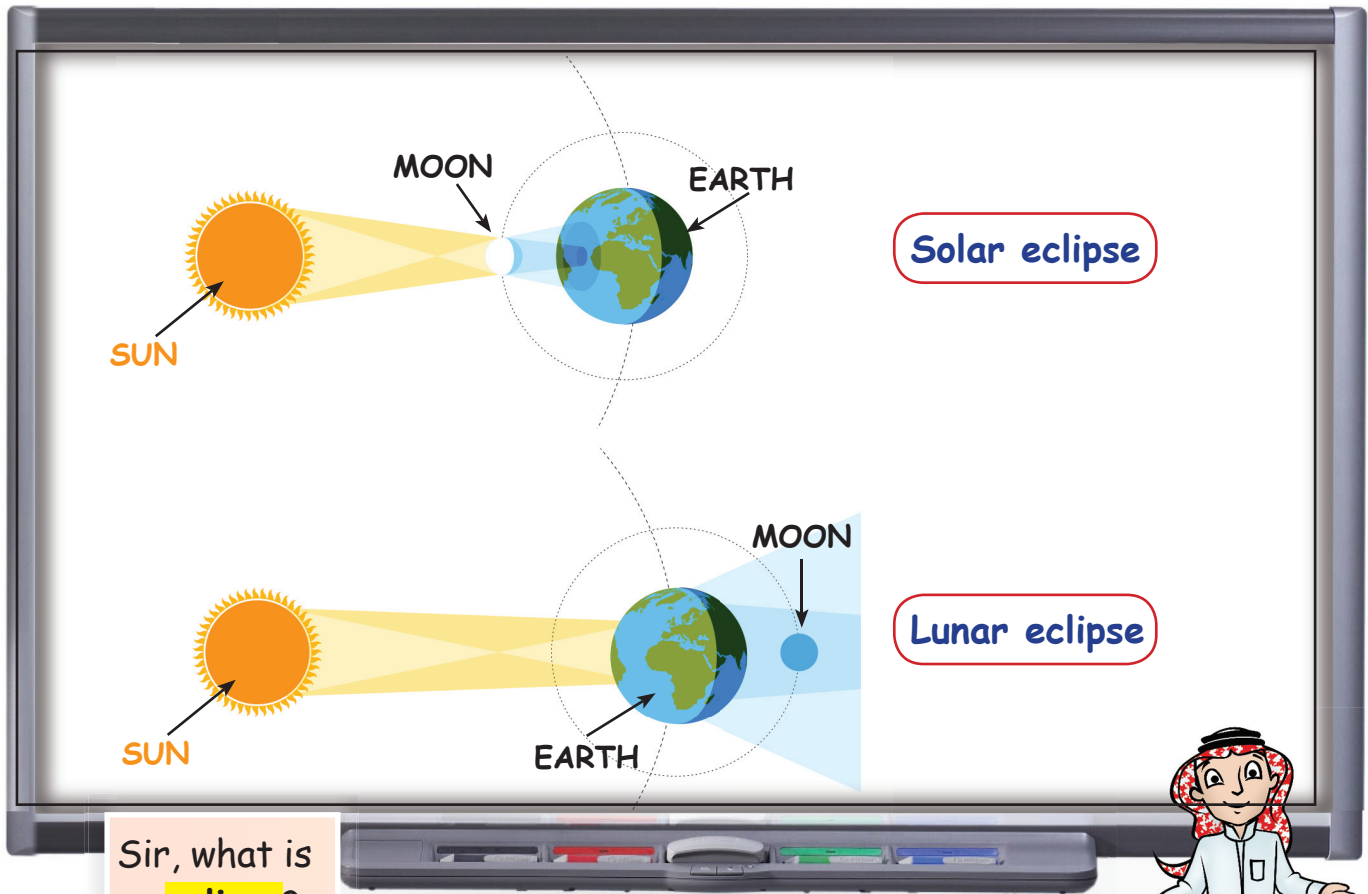
THE SUN, MOON AND EARTH

KEYWORDS:

solar eclipse

lunar eclipse

moon



Sir, what is an **eclipse**?

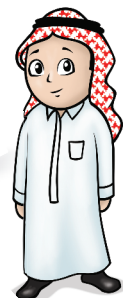


A shadow is the dark shape you make when you block the light. Sometimes the earth or the **moon** block the sun's light. This is called an **eclipse**. **Solar** is about the sun, and **lunar** is about the moon. Now look at the board and tell me about **solar** and **lunar eclipses**.



A **solar eclipse** is when the moon is between the sun and the earth. The moon's **shadow** is on the earth.

A **lunar eclipse** is when the earth is between the sun and the moon. The earth's **shadow** is on the moon.



THE SUN, MOON AND EARTH

Task 1:







Draw lines and match the two parts to make correct sentences.

1 Eclipse	→	a) the shadow of the moon on the earth.
2 Solar	→	b) earth or moon blocking out the sun's light.
3 Lunar	→	c) means the sun.
4 Shadow	→	d) dark shape when you make when you block out light.
5 Solar eclipse	→	e) means the moon.
6 Lunar eclipse	→	f) the shadow of the earth on the moon.

Task 2:

Choose the correct word from the box and fill in the blanks.

lunar (x2) **solar (x3)** **eclipse**

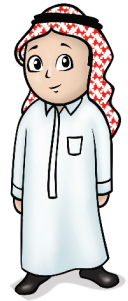
- 1 A  eclipse is when the sun, the moon and the earth are in a line one after the other.
- 2 A  eclipse is when the sun, the earth and the moon are in a line one after the other.
- 3 An  is when the earth or the moon is in the way of the sun.
- 4 When we talk about  we talk about the sun, for example,  energy.
- 5 When we talk about  we talk about the moon.

THE SUN, MOON AND EARTH

Task 3:

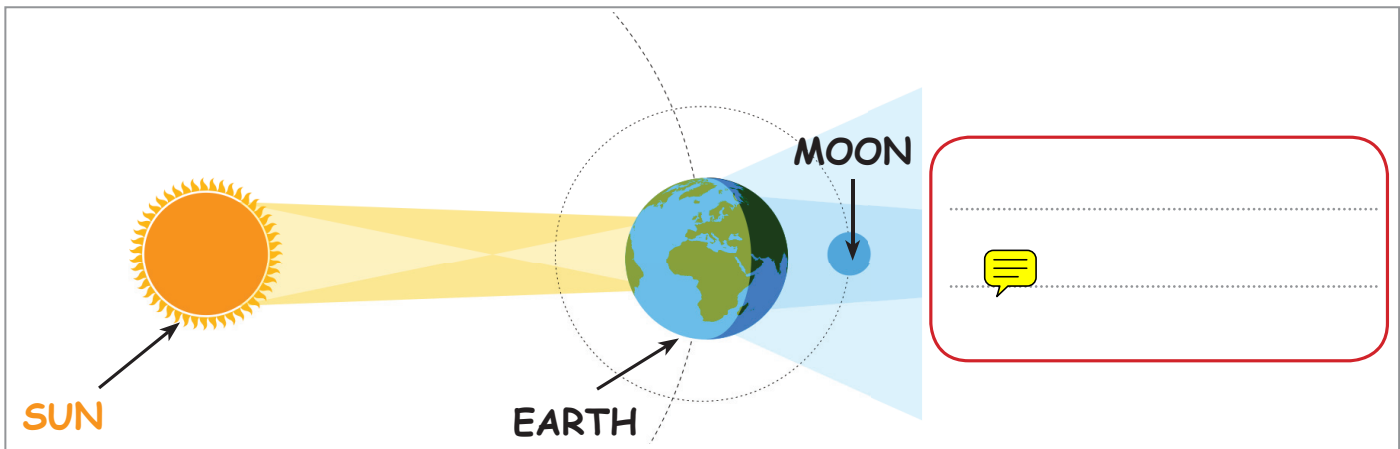
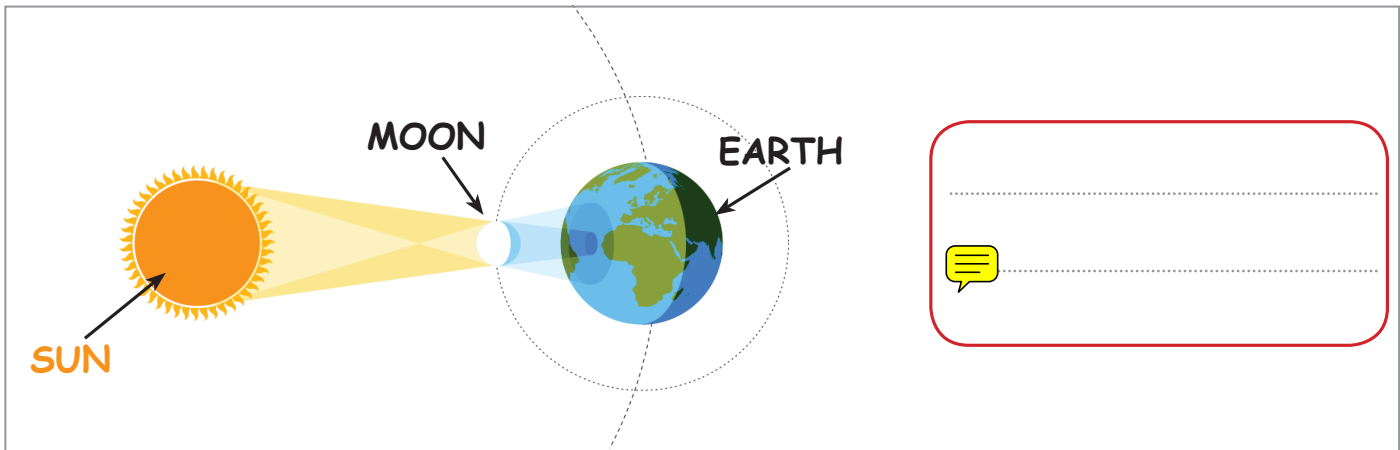
Unscramble the words and then fill in the blanks.

- 1 When you block the light, you get a (oahsdw).
- 2 There is an (leiescp) if the earth or the moon blocks the sun.
- 3 If the earth blocks the sun's light, there is a (rualn) eclipse.
- 4 You cannot see the (usn) in a solar eclipse.
- 5 You cannot see the (onom) in a lunar eclipse.



Task 4:

Write in the box next to the diagram what type of eclipse is shown.



FORCE

KEYWORDS:

gravitational force (gravity) mass weight
force Newtons (N)

Gravitational force or **gravity** pulls us to the centre of the earth.



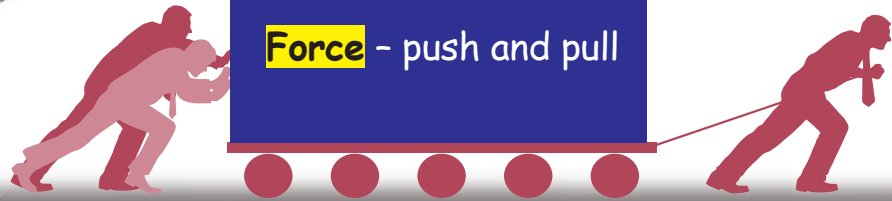
earth



moon

Our **weight** is more on earth because the earth is bigger than the moon. But our mass stays the same everywhere.

Force - push and pull



Sir, can you tell us about force and gravity?

Force is a push or a pull and we measure it in **Newtons (N)**. Look at the board and tell me about gravity, mass and weight.





Gravity is a force. The earth is very big, so it has a great force that pulls us to its centre. This is gravitational force.

Weight is the pull of gravity on an object. We measure weight in Newtons because it is a force. The mass of an object is the amount of matter or stuff it contains. **Mass** is measured in kilograms (kg) or grams (g).



Task 1:

Draw lines to match the two parts of the sentences.

- | | | |
|-----------|---|--|
| ① Gravity | → | a) is a push or a pull. |
| ② Newtons | → | b) is the pull of gravity on an object. |
| ③ Mass | → | c) pulls us towards the center of the earth. |
| ④ Weight | → | d) is the amount of matter an object has. |
| ⑤ Force | → | e) is the measure for force. |








Task 2:

Choose the correct answer. Is it a, b or c?

- is a force that pulls objects to the earth.
a) Weight **b) Gravity** c) Mass
- We measure force in
a) Newtons b) litres c) kilograms
- We measure mass in
a) Newtons b) litres **c) kilograms**
- We measure weight in
a) Newtons b) litres c) kilograms
- The gravity of the earth is the gravity of the moon.
a) greater than b) the same as c) less than

Task 3:

Correct the underlined words.

- Weight is the force of attraction that every object has. 
- Mass is the pull of gravity on an object. 
- The gravity of an object is the amount of matter it contains. 
- Newtons pull us to the centre of the earth. 
- Mass and weight are measured in Newtons. 

Task 4: PUZZLE TIME!

Fill in the puzzle.

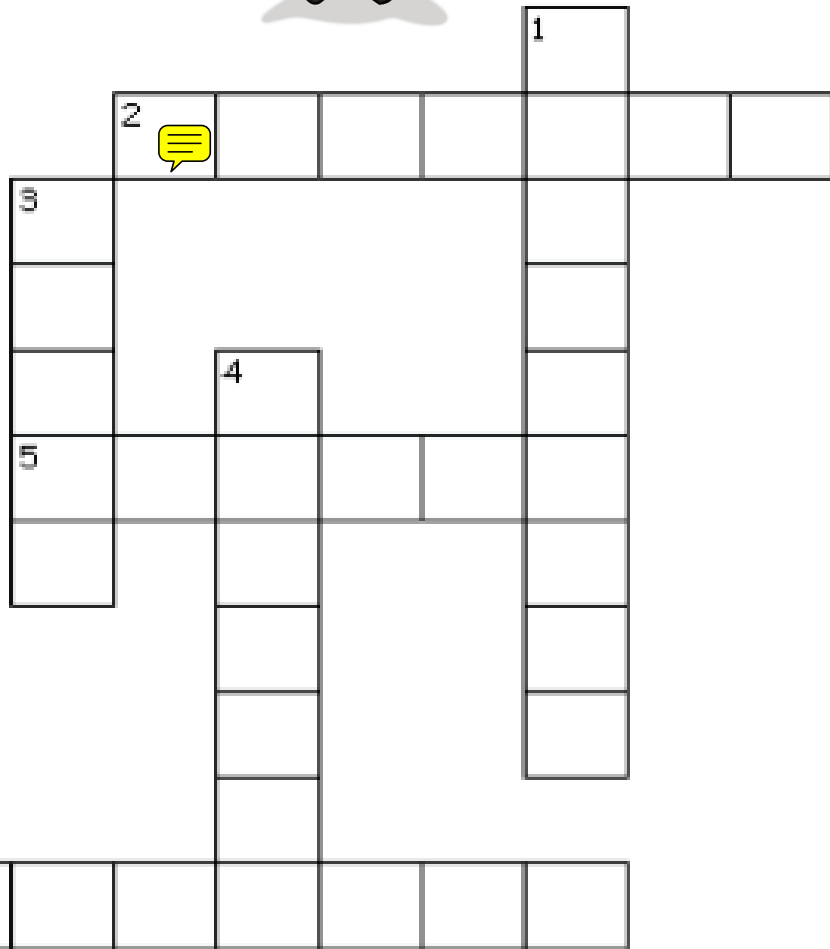


Across

2) Weight is the pull of on an object.

5) Mass tells us how much something contains.

6) Force is measured in



Down

1) I weigh 45

3) A tin of coffee weighs 100

4) The earth, the moon and the sun objects to their centres.

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