

## Final Test Science Preparation Science 6 Grader

Full Name	:		
Class	:	Attendance List	:

*Bismillahirrahmaanirrahim*

Answer the questions based on the instruction given.

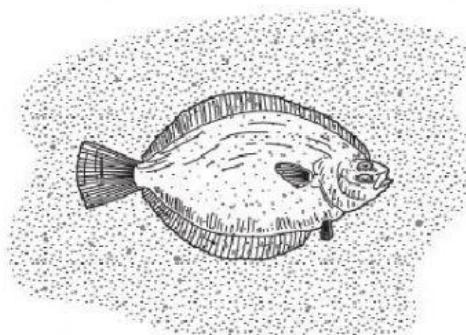
1 All living things have different life processes.

Write down the **life process** in the table next to the **definition**.

The first one has been done for you.

definition	life process
responding and reacting	sensitivity
producing young/offspring	.....
turning food into energy	.....

2 A flounder is a flatfish that lives on the bottom of the sea.



(a) Name **one** feature that you can see in the drawing which makes the fish suited to living on the sea-bed.

Explain how this feature is useful.

Feature ..... [1]

Explanation ..... [2]

(b) These fish can be caught by fishermen with a rod and line **or** by dragging large nets across the sea-bed.

Which of these methods is most likely to conserve **this** variety of fish?

Explain your answer.

method ..... [1]

explanation ..... [1]

3 The Earth rotates on its axis.

(a) Write down how long the Earth takes to make **one** complete rotation on its axis.

[1]

(b) Which of these sentences is true?

Tick (✓) **one** box.

The Sun does **not** move.

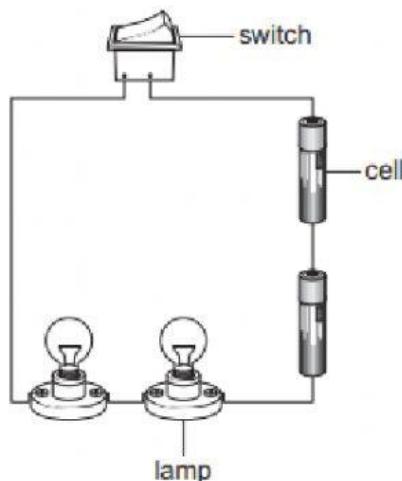
The Sun goes round the Moon.

The Sun orbits the Earth.

The Sun travels round the Earth.

[1]

4 Kofi has built an electrical circuit.



(a) The lamps are **off**.

What does Kofi do to turn the lamps **on**?

[1]

(b) In the space below draw the circuit diagram for this electrical circuit.

Use circuit symbols.

5 Complete these sentences.

Cables and wires need to be **good** electrical conductors.

They are made of .....

For safety, wires are covered with materials that do not conduct electricity.

The wires are covered with .....

Any material that is a **non-conductor** is an ..... [3]

6 Rosie is playing a drum.



(a) She increases the pitch of the note made.

What does Rosie have to do to increase the pitch?

Tick (✓) **one** box.

tighten the drum skin

slacken the drum skin

strike the drum harder

strike the drum softer

(b) Which of these statements is true?

Tick (✓) the **correct** box beside each sentence.

true      false

Sound **can** travel around corners.

Sound **can** spread out in all directions.

Sound **cannot** travel through solids.

Sound **can** travel through liquids.

Sound **can** travel in a vacuum.

[3]

7 Elena is investigating the melting point of different salt solutions.

- she makes a salt solution using  $10\text{ cm}^3$  of water with a known mass of salt
- she puts the salt solution into a freezer and leaves it to freeze
- she takes the frozen salt solution out of the freezer
- she measures the temperature when the frozen salt solution melts
- she repeats each experiment.

Here are her results.

mass of salt used in g	melting point in $^{\circ}\text{C}$	
	first set of results for the experiment	second set of results for the experiment
1	-2	-2
2	-4	-4
3	-6	-6
4	-7	-5
5	-9	-9

(a) What happens to the frozen salt solution when it melts?

..... [1]

(b) What is the melting point of pure water?

.....  $^{\circ}\text{C}$  [1]

(c) Complete the sentence about the pattern shown by the results.

The ..... the mass of salt in the solution the ..... the melting point.

[1]

(d) One temperature in the second set of results does not fit the pattern.

Which temperature?

.....  $^{\circ}\text{C}$  [1]

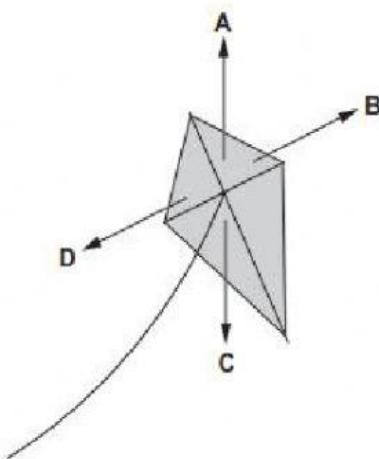
(e) Why did Elena collect two sets of results?

..... [1]

8 Samir is flying a kite.

There is a strong wind blowing.

The picture shows the forces on the kite.



(a) Which letter shows the gravitational force on the kite?

.....

Which letter shows the pulling force Samir exerts?

.....

Which letter shows the pulling force of the wind?

.....

[2]

(b) Which **two** forces balance?

Circle the correct answer.

**A** and **C**

**B** and **C**

**C** and **D**

**D** and **A**

[1]

(c) The strength of the wind **increases**.

The kite stays in the same place.

What happens to the pulling force that Samir exerts?

.....

[1]

9 All animals eat to give them energy.

(a) Here is some information about a food chain in the sea.

Penguins eat fish.  
Fish eat green plants called plankton.

Use the information to draw a food chain in the boxes.



[1]

(b) Here is some information about a food chain in a woodland.

Owls eat small birds.  
Small birds eat insects.  
Insects eat tree leaves.

Use the information to complete this food chain.

Draw arrows to show the direction that energy is flowing.

leaves

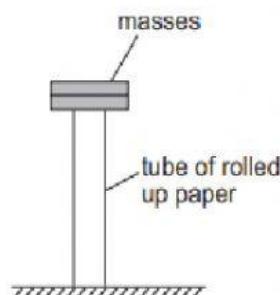
[2]

10 Gaynor knows that birds have hollow bones like a tube.

This helps birds to fly.

She is investigating how the diameter of hollow tubes changes the strength of the tube.

Here is her apparatus.



Here are her results.

diameter of tube in mm	mass at breaking in g
4	100
8	150
12	200
16	250
20	200
24	200

(a) Which diameter tube is the strongest?

..... mm [1]

(b) Gaynor says her results are not very useful.

The investigation can be improved by using different materials for the tubes.

Write down two other ways Gaynor can improve her investigation.

1. ....

2. .... [2]

(c) Why can hollow bones help birds fly?

..... [1]