

DEPARTMENT FOR CURRICULUM,  
LIFELONG LEARNING AND EMPLOYABILITY  
Directorate for Learning and Assessment Programmes  
Educational Assessment Unit

Annual Examinations for Primary Schools 2022

Year 5

SCIENCE

Time: 60 minutes

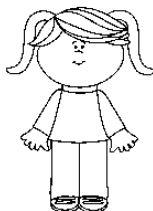
Name: \_\_\_\_\_

Class: \_\_\_\_\_

1. The pictures below show the different stages of the human life cycle.



adult



child



baby



old person



teenager

a) Write the correct number (2 to 5) in the each of the boxes below, to show the correct order of stages in the human life cycle.

The first one has been done as an example.

adult

child

baby

old person

teenager

(4 marks)

b) Tick (✓) the correct box to indicate **your present stage** in the human life cycle.

adult

☐

child

☐

baby

☐

old person

☐

teenager

☐

(1 mark)

c) Plants also have a life cycle.

Tick (✓) the **first stage** of a plant's life cycle.

seed with leaf

☐

seed

☐

small tree

☐

tree with fruit

☐

(1 mark)

2. Animals can be classified into two groups.

a) Write **one word** to complete the following sentence.

Vertebrates are those animals that have a backbone.

Animals that **do not have a backbone** are known as \_\_\_\_\_. (1 mark)

b) Vertebrates are classified into five different groups.

The table below shows pictures of animals from these five different groups.

In the table below write the correct group name from the wordbank near each group of animals. The first one has been done as an example.

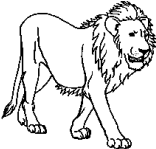
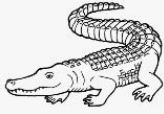
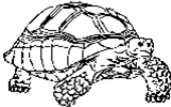
~~birds~~

fish

reptiles

mammals

amphibians

| Animal pictures                                                                                  |                                                                                              |                                                                                                   | Group name |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------|
| <br>monkey     | <br>lion    | <br>cat         |            |
| <br>crocodile | <br>snake | <br>tortoise  |            |
| <br>robin     | <br>eagle | <br>penguin    | birds      |
| <br>newt      | <br>frog  | <br>toad      |            |
| <br>sea bream | <br>shark | <br>swordfish |            |

(4 marks)

c) Birds have feathers, wings and a beak but no teeth.

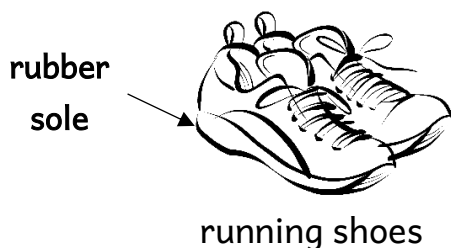
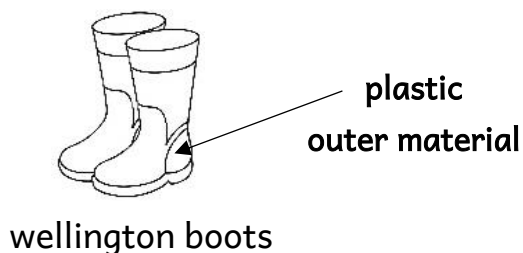
These are called characteristics of animals.

Write **two** characteristics of a fish.

Characteristic 1: \_\_\_\_\_

Characteristic 2: \_\_\_\_\_ (2 marks)

3. The shoes shown in the pictures below are used for different activities.



The table below indicates the property of rubber and explains why rubber is useful for the sole of a pair of running shoes.

- a) Complete the table below.

| Shoe             | Material    | Property             | Usefulness                                        |
|------------------|-------------|----------------------|---------------------------------------------------|
| running shoes    | rubber sole | Grips to the ground. | Prevents the athlete from slipping while running. |
| wellington boots | plastic     | i.                   | ii.                                               |

- i. Write one property of plastic. (1 mark)
- ii. Give a reason to explain why plastic is useful for wellington boots. (1 mark)
- b) Towels are made of cotton.

Name **two** properties of cotton that make it useful for a towel.

Property 1: \_\_\_\_\_

Property 2: \_\_\_\_\_ (2 marks)

4. Changes in the environment affect different habitats. Some changes are natural while other changes are caused by humans (man-made).

Complete the table on the following page.

- a) In Column A state whether the change is **natural** or **man-made**.

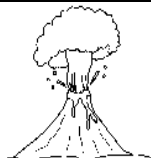
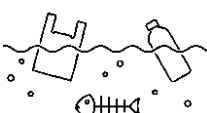
An example has been done.

(4 marks)

- b) In Column B, list one **effect** of such a change.

Three examples have been done.

(2 marks)

| Change                                                                                                | Column A<br>Natural or<br>Man-made | Column B<br>Effect                             |
|-------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------------|
|  deforestation       | man-made                           | Many animals lose their homes.                 |
|  volcano erupting    |                                    | Animals and people can be killed by lava flow. |
|  plastic in the sea |                                    |                                                |
|  tsunami           |                                    | Animals and people can be killed by drowning.  |
|  hurricane         |                                    |                                                |

5. Emma is listening to Neil playing the guitar in his room.

He plucks the guitar string.

- a) Mention **two** things that Neil observes when the guitar string is plucked.

i. \_\_\_\_\_ ii. \_\_\_\_\_ (2 marks)

- b) Emma walks out of Neil's room.

What happens to the sound as Emma moves away from Neil's room?

\_\_\_\_\_ (1 mark)

- c) Emma closes the door to Neil's room. She walks to her room and closes the door to her room. Emma can still hear Neil playing his guitar. This indicates that sound can travel through materials.

Name **two** objects in the house that sound travels through such that Emma can still hear Neil’s guitar playing.

i. \_\_\_\_\_ ii. \_\_\_\_\_ (2 marks)

6. Paul’s family is at Ghadira Bay. Paul and his sister Julia are building a sandcastle. They have a bucket full of seawater and sand.

a) Complete the table below. Write **True** or **False** for each statement.

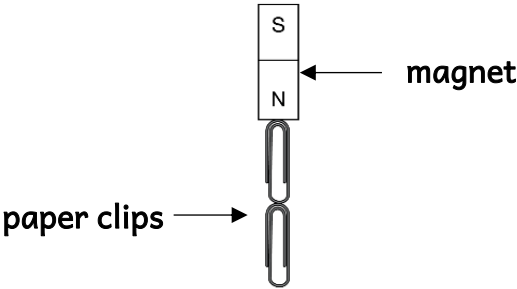
|      | Statement                                      | True or False |
|------|------------------------------------------------|---------------|
| i.   | Stirring the mixture can speed up dissolving.  |               |
| ii.  | Sand dissolves in seawater.                    |               |
| iii. | Coffee and soil dissolve in seawater.          |               |
| iv.  | Substances that dissolve in water are soluble. |               |

(4 marks)

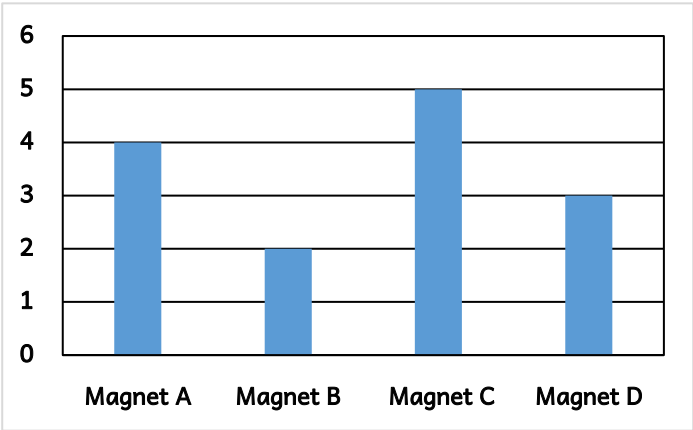
b) Name **one other substance** that dissolves in **water**.

\_\_\_\_\_ (1 mark)

7. Luca has four magnets (A, B, C, D). He wants to know how strong each magnet is. He tests each magnet by attaching paper clips to it and noting how many paper clips can hang from each magnet, as shown in the diagram on the right.



Luca notes down the results in the following bar graph.



Use the information from the bar graph in the previous page to answer the questions that follow.

- a) i. Tick (✓) the **strongest** magnet.

Magnet A

☐

Magnet B

☐

Magnet C

☐

Magnet D

☐

(1 mark)

- ii. Give a reason to support your answer.

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(2 marks)

- b) Luca places the magnets in four different positions as shown in the diagram below.

Tick (✓) the correct column in the diagram below, to indicate which magnets **attract** or **repel**.

| Magnet position                                                                                                                          |                                                                                                                                          | Attract                                                                                          | Repel                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <div style="display: inline-block; width: 20px; height: 20px; background-color: #cccccc; text-align: center; line-height: 20px;">S</div> | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ffffff; text-align: center; line-height: 20px;">N</div> | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ffffff;"></div> | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ffffff;"></div> |
| <div style="display: inline-block; width: 20px; height: 20px; background-color: #cccccc; text-align: center; line-height: 20px;">S</div> | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ffffff; text-align: center; line-height: 20px;">N</div> | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ffffff;"></div> | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ffffff;"></div> |
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(4 marks)

- c) Luca notices that a magnet is attracted to a paper clip made of iron but not attracted to an aluminium door.

- i. Tick (✓) **one** other object that is attracted to a magnet.

brass trumpet

☐

nickel coin

☐

gold ring

☐

bronze statue

☐

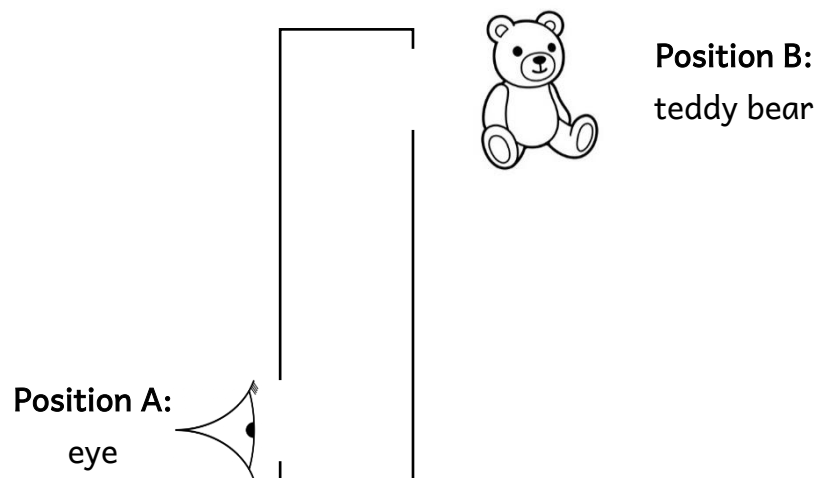
(1 mark)

- ii. Write what Luca can conclude from his observations.

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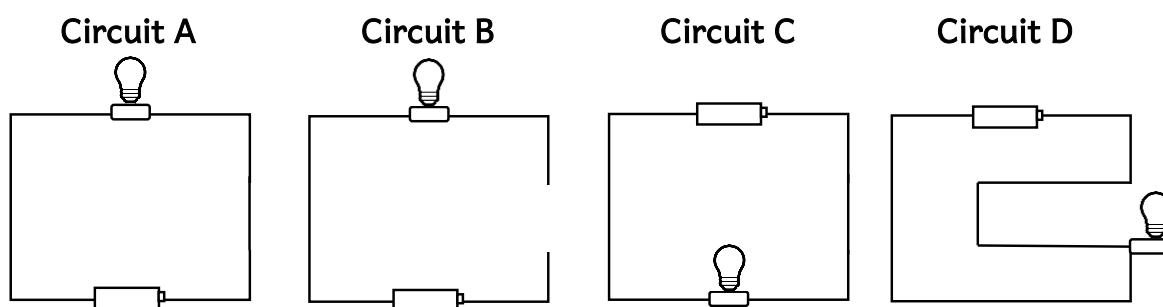
(1 mark)

8. Diane is investigating light travelling in a periscope. She makes a periscope from cardboard as shown in the diagram below.



- a) On the diagram above, mark with a straight line the **positions** of the **two mirrors** in the periscope. (2 marks)
- b) Diane looks through the hole in the periscope marked Position A. She sees the image of a teddy bear on one of the mirrors. Draw the **ray of light** on the diagram above to indicate how light travels through the periscope. (2 marks)

9. Sarah sets the four circuits (A to D) below.



- a) Tick (✓) the correct box to indicate in which circuits the bulb will **light up**. Put a (✗) in the correct box to indicate in which circuits the bulb will **not light up**.

Circuit A

☐

Circuit B

☐

Circuit C

☐

Circuit D

☐

(4 marks)

- b) Then Sarah replaced the light bulb in the circuit with another component to produce sound. Tick (✓) the component used to produce **sound** energy.

electric motor

☐

battery

☐

buzzer

☐

wire

☐

(1 mark)

- c) An electric motor uses electrical energy to produce movement.

Name **two household items** that use electrical energy to produce **movement**.

Household item 1: \_\_\_\_\_ (1 mark)

Household item 2: \_\_\_\_\_ (1 mark)

# 10. What am I?

Match each statement in Column A to the correct word in Column B.

The first one is given as an example.

|    | Column A                                                                |    | Column B   |
|----|-------------------------------------------------------------------------|----|------------|
| a. | I am a baby frog.                                                       |    | Mercury    |
| b. | I am a very strong wind and knock down trees.                           |    | lemon tree |
| c. | I am an insect.                                                         | a. | tadpole    |
| d. | I am an evergreen.                                                      |    | gale       |
| e. | I am a very strong, shiny material and a good conductor of electricity. |    | Earth      |
| f. | I am the planet with the shortest orbit.                                |    | switch     |
| g. | I control the flow of electricity in a circuit.                         |    | metal      |
| h. | I take 24 hours to rotate once on my axis.                              |    | butterfly  |

(7 marks)

**END OF EXAM**