

DEPARTMENT FOR CURRICULUM,
LIFELONG LEARNING AND EMPLOYABILITY
Educational Assessment Unit

Annual Examinations for Primary Schools 2024

Year 5

SCIENCE

Time: 60 minutes

Name: _____

Class: _____

1. All animals grow and reproduce. The pictures in the table below show the lifecycle of a chicken.
- a) Write the correct number (2 to 5) in the table below to show the correct order of the stage in the lifecycle of a chicken.
- The first one has been done for you.

Stages in the lifecycle of a chicken	Correct order of lifecycle
 hatchling	
 small chicken	
 egg	1
 hen	
 chick	

(4 marks)

- b) The chicken is a vertebrate.
- i. Underline the correct answer in the sentence below.
- A vertebrate is an animal (with a backbone/without a backbone). (1 mark)
- c) Tick (✓) the correct answer.
- To which vertebrate group does the chicken belong?

☐ fish ☐ birds ☐ reptiles ☐ mammals ☐ amphibians

(1 mark)

- d) The chicken and all living things have **seven** common characteristics.
List any **three** of these characteristics that show that the chicken is a **living** thing.

Characteristic 1: _____ Characteristic 2: _____

Characteristic 3: _____ (3 marks)

2. The picture below shows one of the negative results of cutting down large amounts of trees in the forest.



- a) Name the **scientific term** used for the human action shown in the picture above.

_____ (1 mark)

- b) Write **two other negative** effects of the action identified in Question 2 a.

Negative effect 1 - _____

Negative effect 2 - _____

(2 marks)

- c) Human actions can also have **positive** effects on the forest.

Write the correct letters (A to C) to match the **action taken** in **Column A** to its **positive effect** in **Column B**.

	Column A - Action Taken		Column B - Positive Effect
A	Planting new trees		Know how to take care of the environment.
B	Educating people		Fewer animals become endangered or extinct.
C	Protect the species in the forest		Have more natural habitats for animal species and more oxygen in the air.

(3 marks)

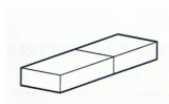
3. Nina is carrying out an investigation about mixtures and solutions.

- a) Complete the table below. Write numbers (1 to 3) to match the **word** in **Column A** to its **explanation** in **Column B**.

Column A – Word			Column B – Explanation
1	soluble		a liquid that dissolves a solid
2	insoluble		a solid that dissolves in a liquid
3	solvent		a solid that does not dissolve in a liquid

(3 marks)

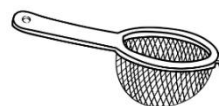
- b) Nina has a mixture of **sand** and **water**. Tick (✓) the correct equipment she uses to separate all the sand particles from water.



bar magnet

☐

filter paper in funnel

☐

sieve with large holes

☐

(1 mark)

- c) Nina now mixes some **salt** with **water**. She stirs the mixture.
Explain what happens to the salt after stirring.

(1 mark)

- d) Nina needs to get the salt back from the salt and water solution.

Tick (✓) the correct process used to get the salt back.

☐

filtration

☐

evaporation

☐

condensation

(1 mark)

- e) Nina now investigates separating different mixtures using a magnet.

Tick (✓) the **two** mixtures where iron can be **separated** from the other material using a magnet.

☐

iron and plastic

☐

iron and nickel

☐

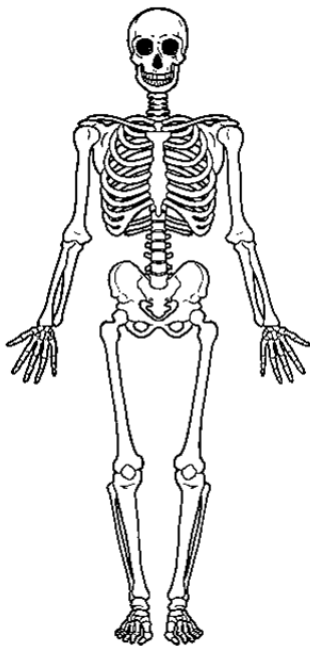
iron and steel

☐

iron and aluminium

(2 marks)

4. The picture below shows bones inside the human body.



a) Name the structure shown in the picture on the left.

_____ (1 mark)

b) On the picture on the left, **shade** the **skull**. (1 mark)

c) Name **one** function of the **skull**.

_____ (1 mark)

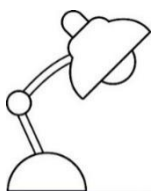
d) On the picture on the left, **circle** the **knee joint**. (1 mark)

e) Name **one** function of the **knee joint**.

_____ (1 mark)

5. Lara sets up a lamp and a cake as seen in the diagram below.

a) On the diagram below, draw the **two** rays of light to indicate how Lara sees the cake.



lamp



cake



Lara's eye

(2 marks)

b) Underline the correct phrase to complete the sentence below.

Lara notices that a ray of light (breaks, bounces off, stays on) objects. This is what enables us to see everything around us. (1 mark)

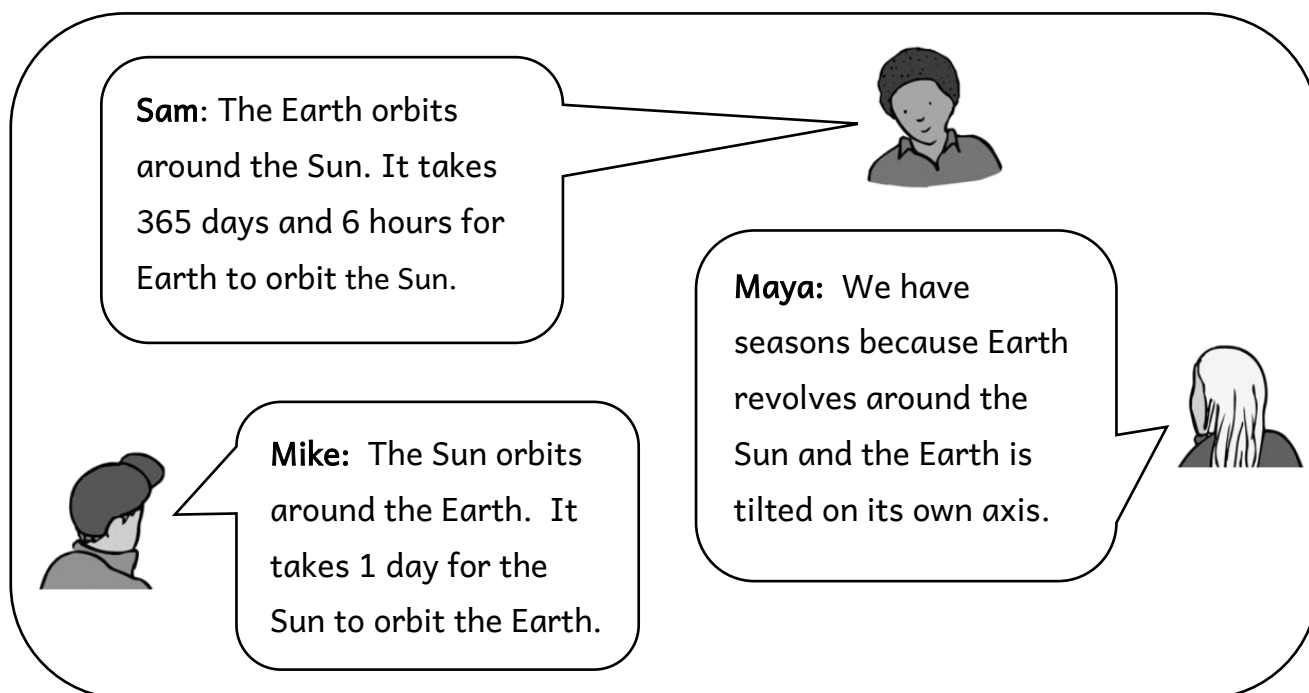
c) The sun is the main source of natural light on Earth. Strong sun rays can damage our eyes and therefore it is very important that we protect our eyes. Write down **two** actions that you can take to **protect** your eyes from the harmful rays of the sun.

Action 1 - _____

Action 2 - _____

(2 marks)

6. Sam, Mike and Maya are discussing facts about the Earth and the Sun. Look at the cartoon below and answer the questions that follow.



- a) Only **two** students are correct.

Tick (✓) the names of the **two** students who are correct.

☐

Sam

☐

Mike

☐

Maya

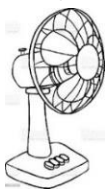
(2 marks)

- b) Complete the table below. Write numbers (1 to 4) to match the **word** in **Column A** to its **meaning** in **Column B**.

Column A - Word			Column B - Meaning
1	Axis		the orbit of a planet as it moves around the Sun.
2	Rotate		an imaginary line around which the Earth spins.
3	Hemisphere		a spinning movement.
4	Revolution		our planet Earth has one in the north and another in the south.

(4 marks)

7. Jake is investigating the distance seeds travel when dispersed.
The diagram below shows the objects Jake uses for the investigation.



switched on fan



maple seed



ruler

Jake drops a maple seed near the fan. He measures the distance the seed moves when the fan is switched on. He repeats the investigation for four other maple seeds.

- a) Jake wants to carry out a fair test by using maple seeds of the same size.
Tick (✓) **one other** factor Jake should consider to ensure a fair test.

☐

All maple seeds should be of the same colour.

☐

The fan speed should be the same for each test.

☐

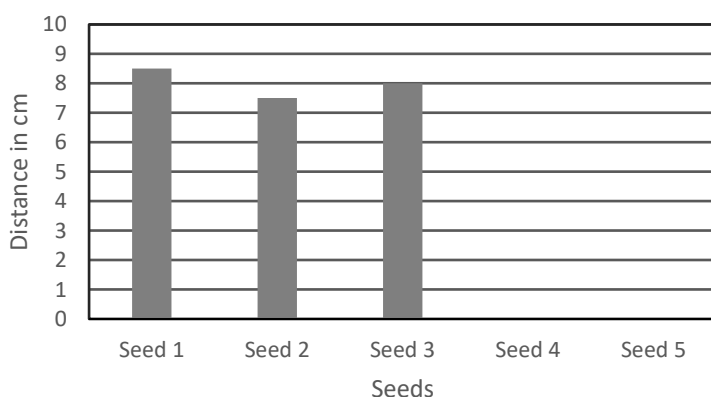
The fan speed should be different for each test.

(1 mark)

- b) The table below shows the results of Jake's investigation.

seed number	distance travelled in cm
1	8.5
2	7.5
3	8.0
4	7.0
5	9.0

Complete the bar chart below. **Draw bars** to indicate the results for **Seed 4** and **Seed 5**. The first three bars have been given.



(2 marks)

c) Which seed travelled the **furthest**?

(1 mark)

d) Seeds travel in a variety of ways. The seeds in Jake's investigation have all been dispersed by wind.

Write **one other** method of how seeds can be dispersed.

(1 mark)

8. Micro-organisms are found everywhere in the environment, on surfaces we touch, in the air we breathe and even inside our bodies.

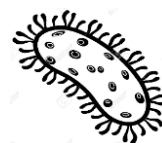
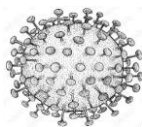
a) Choose **one** word from the word bank below to complete the sentences that follow.

microscope	bacteria	probiotics	virus	living
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i. Micro-organisms are _____ things.

ii. They can only be seen through a powerful _____.

iii. Name the two micro-organisms in the pictures below.



iv. _____ are good live bacteria that help our immune system.

(5 marks)

b) Complete the following sentences by filling in the blanks with **one or more** suitable words.

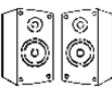
i. Some micro-organisms can be very useful. One example is using _____ when making bread.

ii. Other micro-organisms can be harmful and make us sick. To avoid the spread of these harmful micro-organisms, we should always _____.

(2 marks)

9. Kate investigates how electrical energy is transformed into other forms of energy. She uses five objects found at home.

a) Complete the table below. Write the **main transformed energy** for each object. The first one has been given as an example.

Object $\longrightarrow$ Main Transformed Energy	
 oven	heat energy
 light bulb	
 iron	
 speakers	
 fan	

(4 marks)

b) Thomas Edison was a famous inventor. He improved the design and material used in the invention of one of the objects listed in the table above.

i. Name this object. _____ (1 mark)

10. Sound is made by vibrations or sound waves that we can hear.

Tick (✓) whether the following statements about sound are **True** or **False**.

		True	False
a.	Sound can travel in all directions.		
b.	Sound cannot travel through solids.		
c.	The blue whale makes loud sounds underwater to communicate with other whales.		
d.	An astronaut on the moon can hear the sound of a space shuttle passing by.		

(4 marks)

END OF EXAM