
GCSE

COMBINED SCIENCE: TRILOGY

END OF TOPIC TEST



Time allowed: 1 hour

Materials

For this paper you must have:

- a ruler
- a calculator

Instructions

- Answer **all** questions in the spaces provided.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- There are 50 marks available on this paper.
- The marks for questions are shown beside each question.
- You are expected to use a calculator where appropriate.
- You are reminded of the need for good English and clear presentation in your answers.

Advice

- In all calculations, show clearly how you work out your answer.

Please write clearly, in block capitals:

Surname: _____

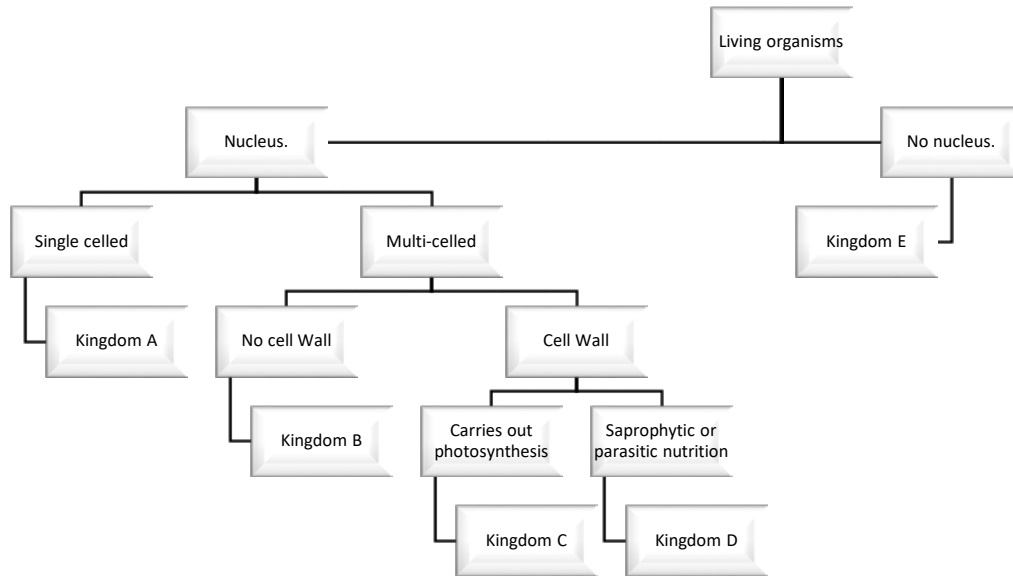
Forename(s): _____

Class: _____

Teacher: _____

Date: _____

Q1 The key below shows how living organisms can be classified into five kingdoms.



Q1a Match the following kingdoms to the correct kingdom on the classification key above.

Animals Plants Fungi Protists Prokaryotes

Kingdom A: _____

Kingdom B: _____

Kingdom C: _____

Kingdom D: _____

Kingdom E: _____

3

Q1b What is meant by the term 'species'?

1

Q1c Explain why it is difficult to classify viruses.

2

Q2a In science, we use many different terms.

Match up the following terms with the correct definition.

You should draw only one line from the term to the correct definition.

Population	The variety of different species on Earth
Community	The total number of all the organisms of the same species that live in a particular geographical area.
Interdependence	Contest between organisms of the same species in a community.
Biodiversity	All the organisms in a community depend on each other.
Interspecific Competition	A group of two or more populations of different species that live at the same time in the same geographical area.
Intraspecific competition	Contest between organisms of different species in a community.

6

Q2b Give **two** examples of what animals compete for:

2

Q2c Give **two** examples of what plants compete for:

2

Q2d Sort the following in to 'Abiotic' and 'Biotic' factors.

- i. Light intensity
- ii. Food availability
- iii. Introduction of a new predator
- iv. pH of soil
- v. Water availability

Abiotic Factors	Biotic Factors

5

Q3 The picture shows a habitat.



Q3a Within any habitat organisms are adapted to their environment they live in.

One type of adaptation is **structural** adaptations. This is where an organism has a particular physical feature that allows the organism to compete, for example a bird of prey's eyesight enables it to see its prey better.

Name the other **two** types of adaptations and **give an example** of an animal or plant with that type of adaptation.

4

Q4 A group of students were asked to investigate the abundance of grass growing on the school field and how it was affected by the amount of light.

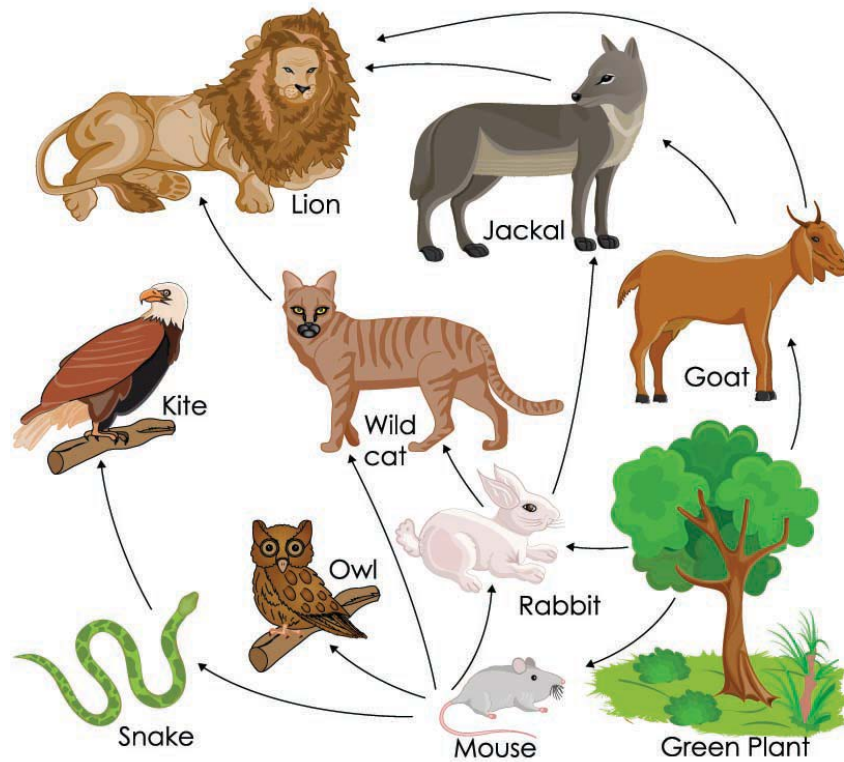
They sampled along a transect line.

Describe how you would carry out a line transect.

In your answer you should include:

- A list of equipment
- How you will use your equipment
- The measurements that you will take
- How you will use your results

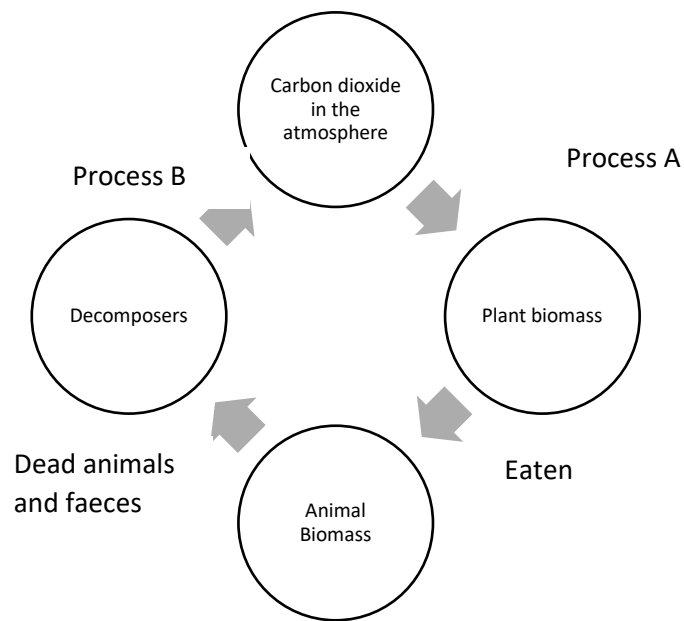
Q5 The diagram below shows a food web.



Q5a In the food web above, what scientific term can be se to describe:

- i. The green plants? _____ 1
- ii. The rabbit? _____ 1
- iii. The Lion? _____ 1

The diagram below shows part of the carbon cycle.



Q5b Name the processes

A _____ 1

B _____ 1

Q5c The two process A and B are important processes which can be summarised by word equations.

Write a word equation for each process:

Process A

_____ 1

Process B

_____ 1

Q5d What is missing from the cycle above that adds extra carbon dioxide into the atmosphere?

_____ 1

Q5e Another important cycle is the water cycle.

