

Classification

GCSE Biology · Written to the shared content for AQA, Edexcel and OCR

Name _____ Class _____ Date _____

1. Worked example

List the levels of classification in the Linnaean system, largest first. (2 marks)

Step 1 · Order

Kingdom, phylum, class, order, family, genus, species.

Step 2 · Memory aid

e.g. 'King Penguins Can Often Find Good Snacks'.

Answer: Kingdom → phylum → class → order → family → genus → species

Check: Organisms in the same genus are very closely related.

2. Now try one with the steps

The red fox is *Vulpes vulpes* and the Arctic fox is *Vulpes lagopus*. What does this tell you? (2 marks)

Step 1 · Genus

Step 2 · Species

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. Who developed the classification system based on kingdoms down to species? [1]

2. What are the two parts of a binomial name? [1]

3. Name the three domains. [3]

4. Which level of classification comes between class and family? [1]
-
-
5. Linnaeus classified organisms by which features? [1]
-
-
6. Explain why scientists use binomial names rather than common names. [2]
-
-
7. The tiger is *Panthera tigris*. Which genus is it in? [1]
-
-
8. Explain how new evidence led to changes in classification. [2]
-
-
9. What does an evolutionary tree show? [1]
-
-
10. Which domain contains plants, animals, fungi and protists? [1]
-
-
11. Explain why archaea and bacteria are in separate domains even though both are prokaryotes. [2]
-
-
12. Two species share a common ancestor 5 million years ago, and another pair 1 million years ago. [1]
How many times longer ago was the first?
-
-
13. Explain why fossils are used when drawing evolutionary trees. [1]
-
-
14. Explain why DNA comparisons can give a more accurate classification than appearance alone. [2]
-
-

4. Before you hand it in

Writing 'panthera Leo'

Genus has a capital letter, species does not: *Panthera leo* (italics when typed, underlined when handwritten).

"Archaea are just a type of bacteria."

Archaea are prokaryotes but are chemically very different from bacteria.

"Classification never changes."

New evidence, e.g. from DNA, can move organisms between groups.