

Classification of living organisms: practice questions

3 questions • 6 marks • mark scheme at the back

For AQA GCSE Biology 8461 and Combined Science: Trilogy 8464. **Triple only** is not in Combined Science. **Higher tier** is only on the Higher paper.

Name

Total / 6

- 1** The scientific name of the domestic dog is *Canis familiaris*. The scientific name of the wolf is *Canis lupus*. (a) What does the first word in both names tell you? (1) (b) Name the group in the Linnaean system that comes just above genus. (1) **[2 marks]**

- 2** Carl Woese developed the three-domain system of classification. (a) Name the three domains. (1) (b) Give one development in biology that led scientists to propose new models of classification. (1) **[2 marks]**

- 3** An evolutionary tree shows that species P and species Q split from a common ancestor 10 million years ago. Species R split from the line leading to P and Q 40 million years ago. Which species is more closely related to P: Q or R? Explain your answer. **[2 marks]**

Mark scheme

One mark for each point unless a maximum is given. Words in brackets are not needed for the mark.

1. [2]

- (a) they are in the same genus (1)
- (b) family (1)

2. [2]

- (a) archaea, bacteria and eukaryota, all three needed (1)
- (b) any one from: improvements in microscopes gave evidence of internal structures / understanding of biochemical processes progressed / evidence from chemical analysis (1)

3. [2]

- Q (1)
- P and Q share a more recent common ancestor / split more recently (10 million years ago rather than 40 million years ago) (1)