

Evolution

Total mark – 14

Question: 1

8 Charles Darwin developed the theory of evolution by natural selection in the 1800s.

8 (a) Describe the process of evolution by natural selection.

[3 marks]

8 (b) In the 1870s, cartoons of Darwin looking like a monkey were published in magazines.

The cartoons were published after Darwin wrote a book about his theory of evolution.

8 (b) (i) Suggest **one** reason why cartoons of Darwin looking like a monkey were drawn.

[1 mark]

8 (b) (ii) Give **two** reasons why Darwin's theory of evolution by natural selection was only gradually accepted.

[2 marks]

8(a)	any three from: <ul style="list-style-type: none"> • mutation or variation • better adapted survive or survival of the fittest • (survivors / better adapted) reproduce • genes passed on 	allow points if given in example allow genetic changes allow differences in appearance allow ref to offspring	3	AO1 1.8.1e/f
8(b)(i)	wanted to discredit theory / Darwin	allow wanted to make Darwin / theory look stupid allow idea that (cartoon shows) humans evolved from monkeys	1	AO3 1.8.1b/c
8(b)(ii)	any two from: <ul style="list-style-type: none"> • Darwin's theory challenged idea that God created life • little / insufficient evidence • there were other (scientific) theories (at the time) • mechanism of inheritance not known 	allow Darwin's theory challenged / against religious ideas/teaching. ignore against religion ignore no evidence allow examples, eg Lamarckism, allow genes / DNA not discovered ignore did not know about inheritance	2	AO1 1.8.1b/c
Total			6	

Question: 2

6 Darwin's theory of natural selection states that all living things have evolved from simple life forms.

6 (a) Use the correct answer from the box to complete the sentence.

[1 mark]

three billion

three million

three thousand

Darwin's theory states that life began on Earth _____ years ago.

6 (b) Life evolved due to changes in genes. Changes in genes cause variation.

Complete the sentences.

[2 marks]

Changes in genes are called _____.

Individuals with characteristics most suited to the environment are more likely to survive and _____.

Question	Answers	Extra information	Mark	AO / Spec. Ref.
6(a)	three billion		1	AO1 1.8.1a
6(b)	mutation(s)	in this order only	1	AO1
	breed / reproduce	allow pass on their genes	1	1.8.1e/f
Total			3	

Question: 3

- 7 In the 1800s, Charles Darwin visited the Galapagos Islands.
On the islands he found many different species of bird called finches.
Darwin thought that all the different finch species had evolved from one species of finch that had reached the islands many years before.

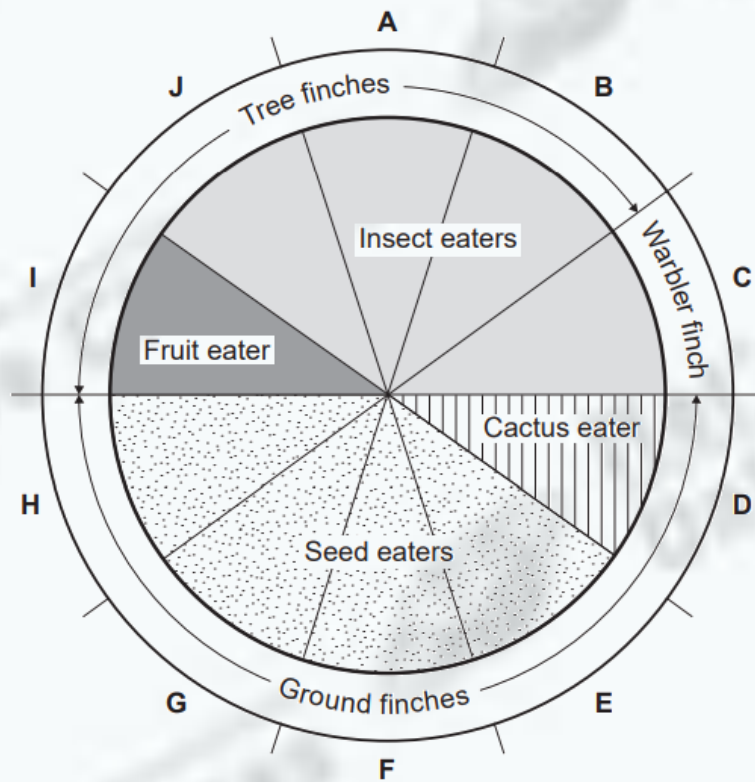
- 7 (a) Complete the following sentence.

[1 mark]

Darwin suggested the theory of evolution by natural

- 7 (b) Figure 9 shows information about ten species of finch, A–J.

Figure 9



7 (b) (i) How many of the species of finch eat insects?

Draw a ring around the correct answer.

[1 mark]

4

5

6

7 (b) (ii) Describe finch species **G**.

Use **only** information from **Figure 9**.

[2 marks]

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7 (c) When Darwin returned to the UK very few people believed his theory of evolution.

A different scientist suggested that the changes that occur in an organism during its lifetime can be inherited by its offspring.

What was the name of this scientist?

Tick (✓) **one** box.

[1 mark]

Lamarck

☐

Mendel

☐

Semmelweis

☐

Question	Answers	Extra information	Mark	AO / Spec. Ref.
7(a)	selection		1	AO1 1.8.1a
7(b)(i)	4		1	AO2 1.8
7(b)(ii)	ground finch / lives on the ground (only) eats seeds	allow eg eats seeds on / from the ground for 2 marks	1 1	AO2 1.8
7(c)	Lamarck		1	AO1 1.8.1c
Total			5	