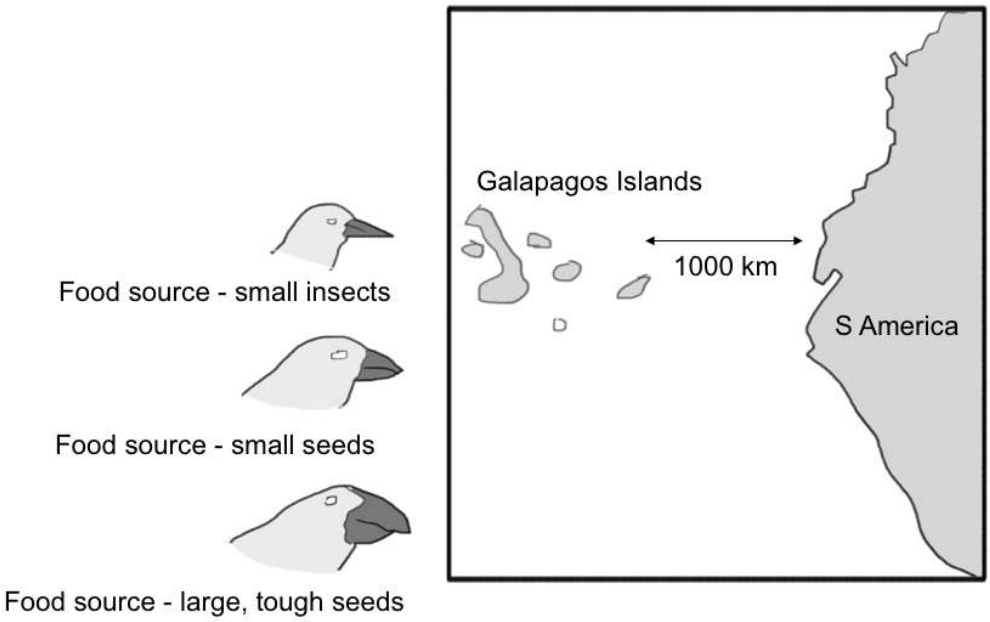
0 1 . 1 The diagram below shows some of the species of finches found on the Galapagos Islands. The map shows the relationship of the Galapagos Islands to the west coast of South America.



A biologist called Charles Darwin proposed that the different beak shapes evolved through natural selection in order to take advantage of the food sources available on the different islands.

Explain how evolution of the finches occurred via natural selection.

Individuals within species show variation in beak shape [1]

because of differences in their genes. [1]

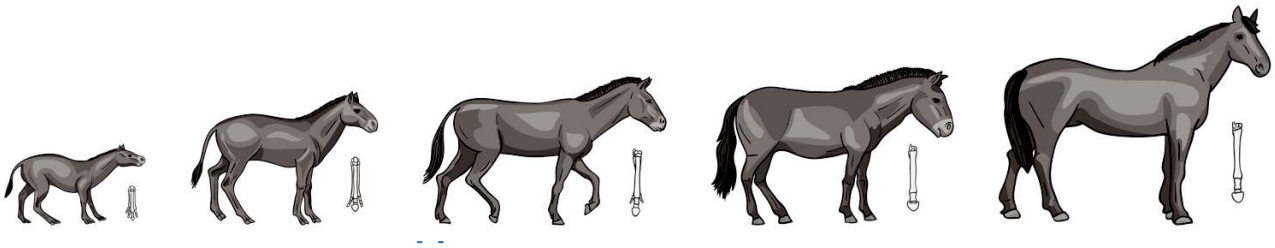
Finches with beak shape most suited to food type are more likely to survive [1] or mutation for beak shape occurs. [1]

Gene(s) or DNA for beak shape is passed on to offspring. [1]

[4 marks]

TOP TIP : Be specific about the example in the question. Just giving a general answer, e.g. 'individuals show variation' might lose you the marks. In this case the example is beak shape.

0 1 . 2 Ancestral horse species were shorter in height and had 5 separate 'toes' and lived in a habitat that resembled a swampy forest. Modern horses are taller, have their toe bones fused together to form a hoof and typically live wild in grassland.



as ground hardened/became less swampy or as forest turned to grassland [1]

less toes/less contact with ground or longer legs made horses run faster [1]

allowing those with advantageous genes/alleles/mutations [1]

to run away from predators [1]

they survived **and** reproduced/could breed [1]

passing on genes (for less or fused toes/longer legs/greater height [1]

[6 marks]

TOP TIP : in all natural selection questions the terms 'variation', 'mutation', 'alleles' 'advantageous', 'survive', 'reproduce', and 'pass on' (to offspring) will always get you marks.