

AS Level Biology B
H022/01 Foundations of biology

Question Set 12

1 Fig. 1 represents one branch of a phylogenetic tree for the evolution of hominids.

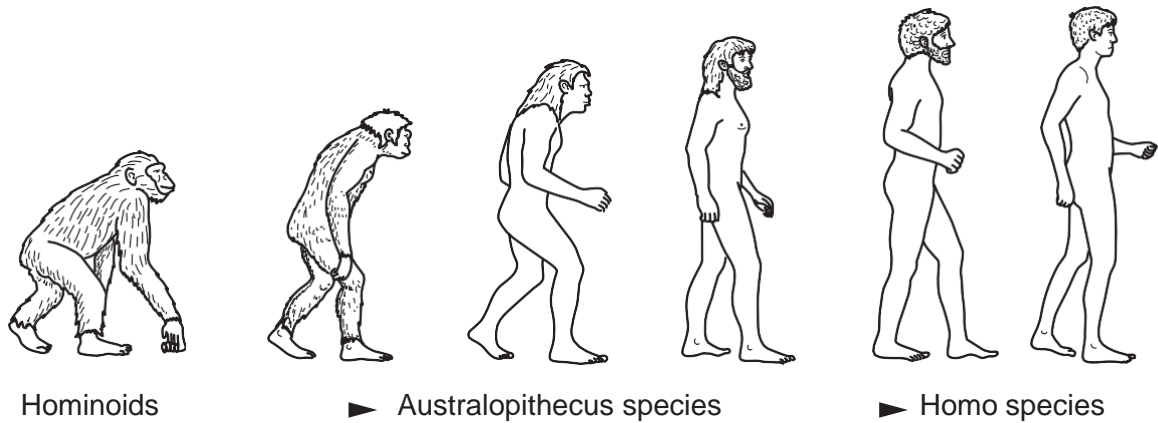


Fig. 1

(a) Using Fig. 1, describe one anatomical adaptation that arose during the evolution of hominids and suggest how this was an advantage to early hominids such as *Australopithecus africanus*.

adaptation

.....

advantage

..... [2]

(b) There are many different theories for the evolution of language in hominids.

In the late nineteenth century, the Royal Linguistic Society banned any discussion about the evolution of language based on the fact that none of the theories could be proven scientifically.

Using your knowledge of the theories for the evolution of language, outline methods that have been developed in recent years to test these theories.

[3]

- (c) Evidence from fossils and biochemical molecules, such as DNA, has enabled scientists to classify hominids.

Complete the following passage about DNA using the most appropriate terms.

DNA is a double helix made of two strands. The individual molecules in each strand are held together by bonds formed during a series of reactions. The two strands are held together by bonds between pairs of nitrogenous bases. Evidence showed that cytosine, a type of base, always pairs with This is called complementary base pairing.

[5]

Total Marks for Question Set 12: 10



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