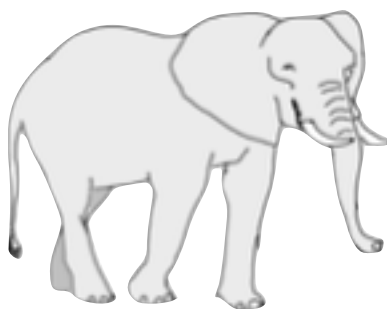


- 1 The diagram shows an African elephant.



Here is some information about the African elephant.

- It uses its trunk to reach for vegetation and suck up water for drinking and bathing.
- It has large ears to help keep it cool by giving off heat.
- It has tusks for foraging, digging, stripping bark off trees.

- 1 (a) (i) Use **Lamarck's** theory for how the African elephant evolved its trunk. [3 marks]

A change in environment or reaching for food or stretching or holding water led to more use of the trunk. [1]

The extra use led to increased size or length of the trunk during lifetime [1]

This longer trunk was passed to offspring [1]

- 1 (a) (ii) Darwin suggested a different theory for the evolution of characteristics.

Give an outline of Darwin's theory of evolution of characteristics.

Use the example of the development of elephant's large ears. [4 marks]

Individuals in an elephant population show variation in ear size [1]

or mutation for larger ears occurs [1]

Larger ear sizes better for cooling [1]

Individuals with larger ear size more likely to survive [1]

Genes / DNA for larger ear size passed on to offspring [1]

Remember, be specific to the question and don't just give a general description of Lamarck's or Darwin's theory. Each question is asking about a specific feature of the elephant.

(Total 7 marks)

End