

Q1. Charles Darwin proposed the theory of natural selection.

(a) What is meant by natural selection?

.....

.....

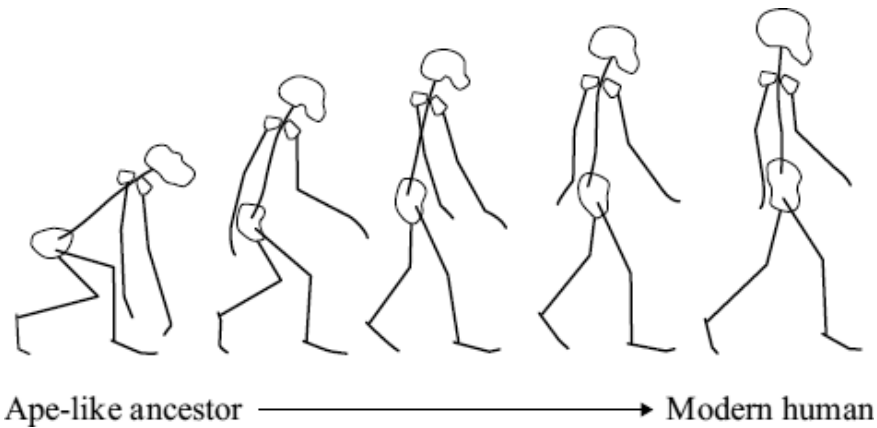
.....

.....

(2)

(b) The drawings show stages in the evolution of the human skeleton.

All the drawings are to the same scale.



Use information from the drawings to describe **two** trends in the evolution of the human skeleton.

1

.....

2

.....

(2)

(c) Darwin said that humans had evolved from ape-like ancestors.

Many people disagreed with him at the time.

Give **two** reasons why.

1

.....

2

.....

(2)

- (d) Lamarck's theory of evolution stated that useful changes which occur in an organism during its lifetime will be inherited by its offspring.

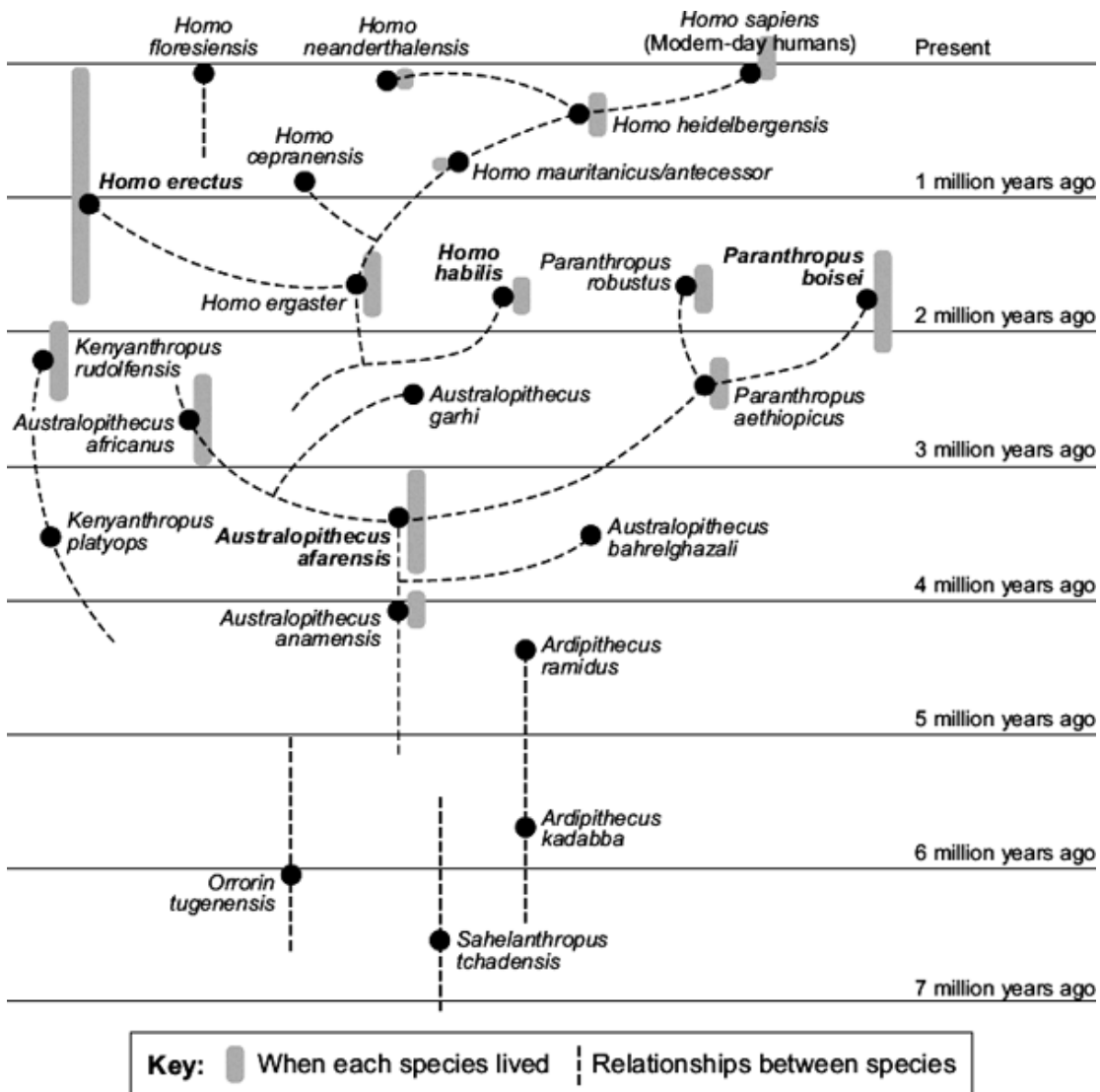
Give **one** way in which Darwin's theory differs from Lamarck's.

.....

(1)
 (Total 7 marks)

Q2. The diagram shows an evolutionary tree for humans.

The diagram is based on a study of fossils.



- (a) When did *Australopithecus afarensis* first appear?

..... million years ago.

(1)

- (b) Which species was the direct ancestor of *Paranthropus boisei*?

.....

(1)

- (c) Which species is most closely related to *Homo habilis*?

.....

(1)

- (d) About 250 fossils of *Homo erectus* have been found. About 50 of these fossils have been found in China.

A Chinese scientist has suggested the hypothesis that Chinese people evolved from *Homo erectus*.

Most scientists do **not** agree with this hypothesis.

Use the information above and information from the diagram to suggest **two** reasons why.

1

.....

2

.....

(2)

- (e) Darwin suggested the theory of natural selection. It was a long time before this theory was accepted by most scientists.

Give **two** reasons why it took a long time.

1

.....

2

.....

(2)

(Total 7 marks)

