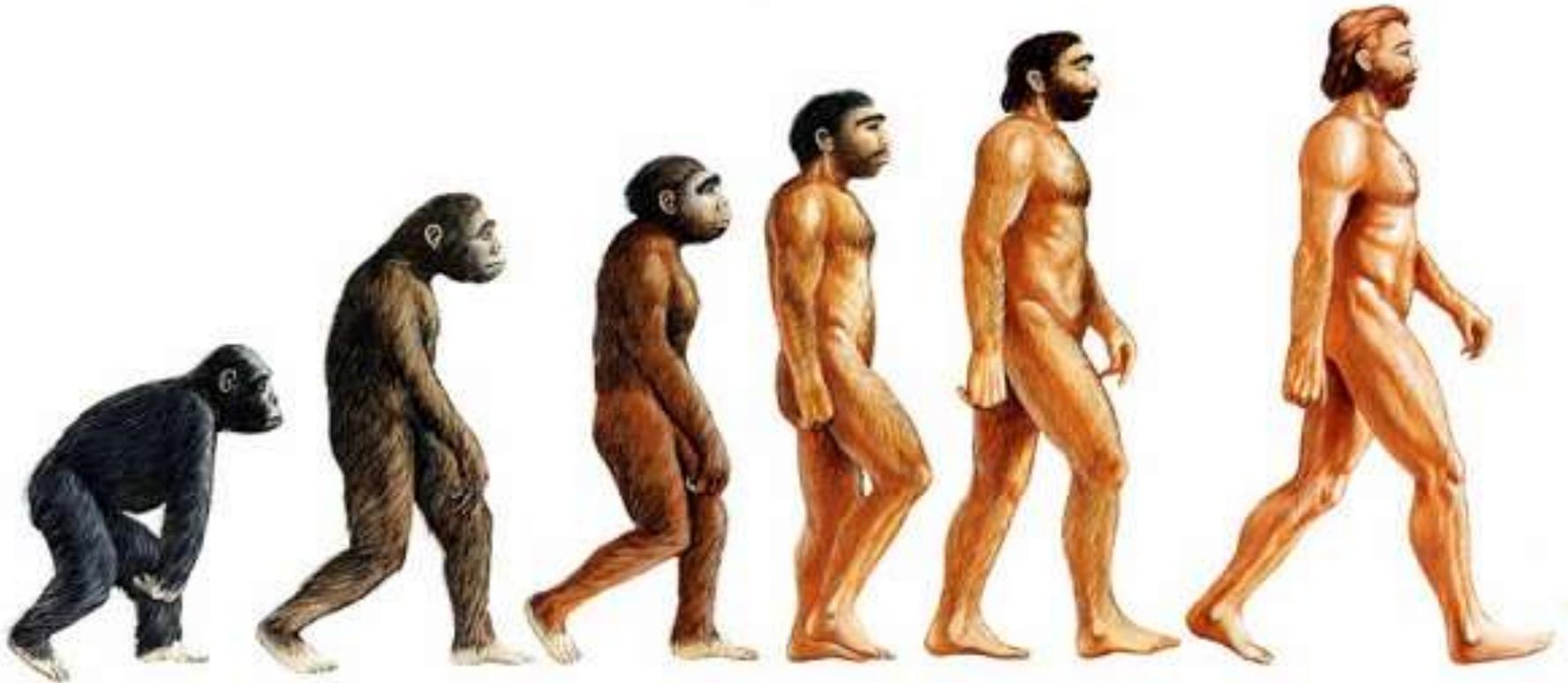
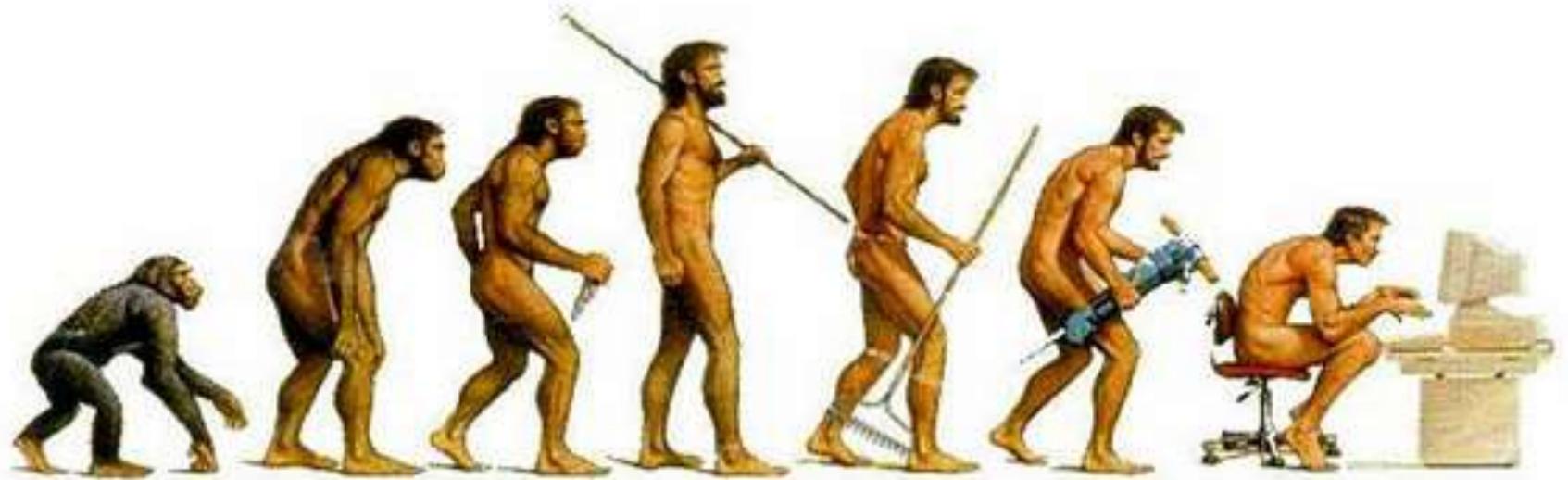


What is Evolution?

WALT: Explain how natural selection has led to evolution





Task 1: Place the following statements in the correct order

- Certain genes cause the characteristics within the population change.
- Well-adapted individuals leave more offspring than do poorly adapted individuals.
- A change occurs in the environment
- Poorly adapted individuals do not survive as well.

Question 1: Which of the following is a description of how natural selection might occur?

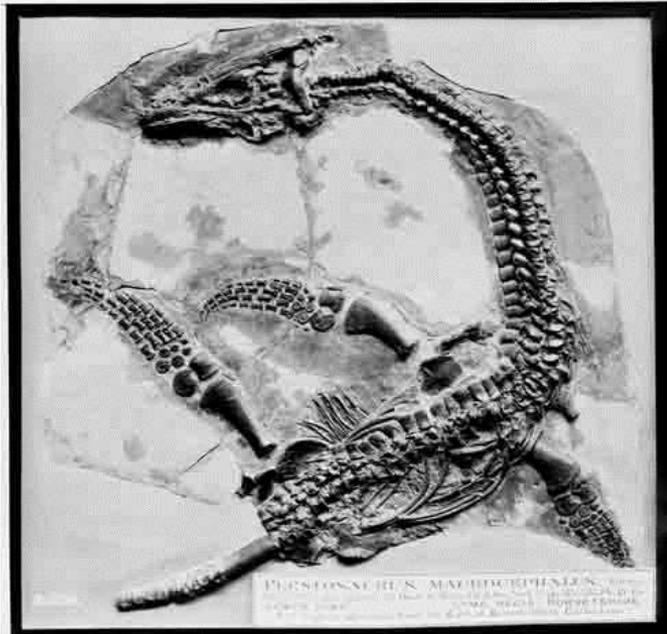
1. A body builder develops stronger muscles during the course of his life, so his son will be strong as well.
2. A cat that lost its tail will produce offspring with shorter tails.
3. Neck length in a giraffe population increased over time since taller giraffes had a competitive advantage over shorter giraffes.

Question 2: Which of the following might be a result of natural selection?

1. Albino animals are rare in nature because they are easy for predators to find.
2. The fastest gazelle is least likely to be eaten by a lion.

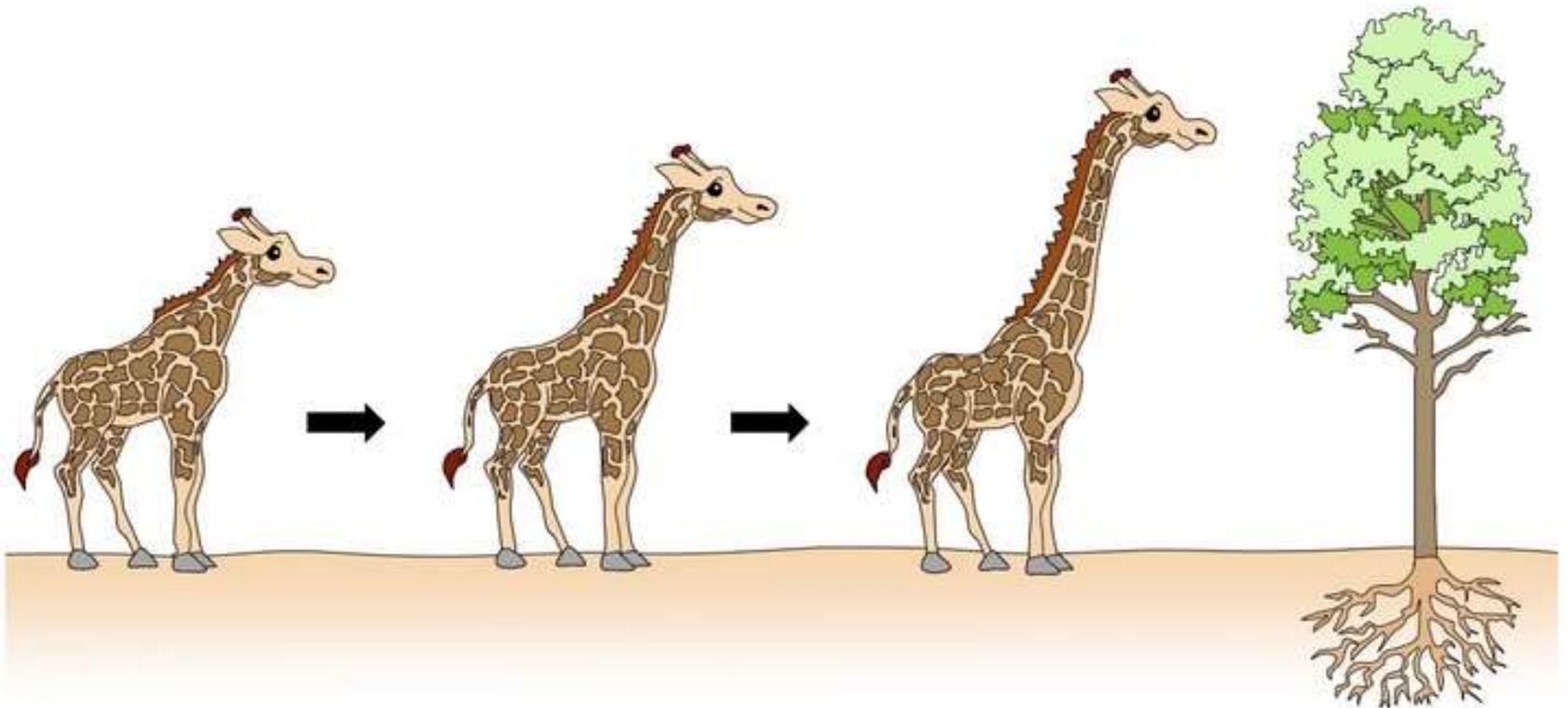
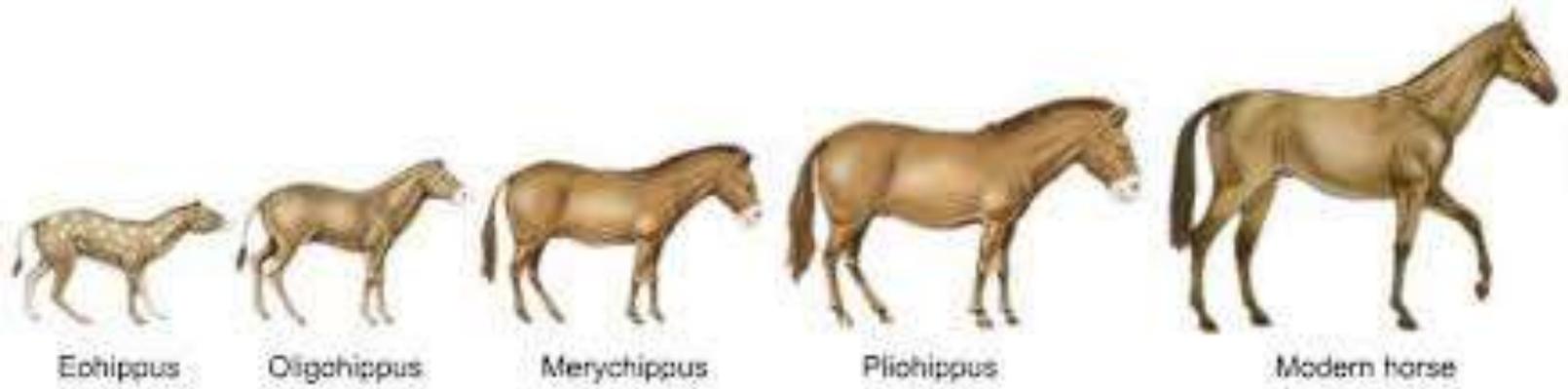
Mary Anning (1799-1847)

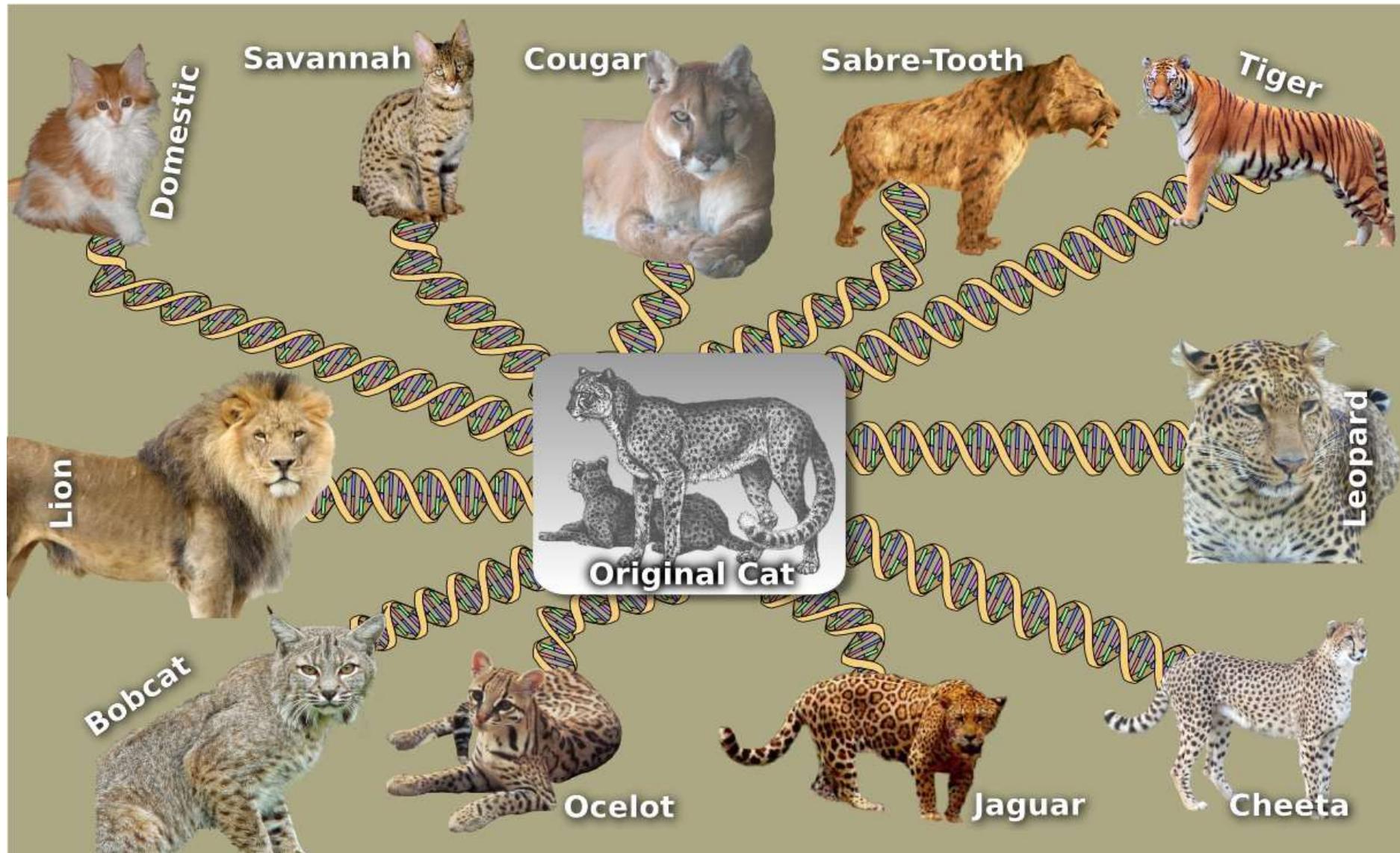
- Collector of fossils
- Gave us a lot of knowledge about pre-historic animals and plants



Fossils of animals and plants that were not existing on Earth led people to believe that different animals and plants used to inhabit the Earth ...and evolved (changed) into species that we do have around today







Domestic



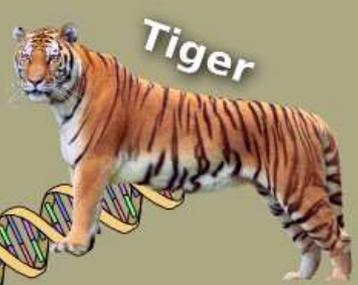
Savannah



Cougar



Sabre-Tooth



Tiger



Lion



Original Cat



Leopard



Bobcat



Ocelot



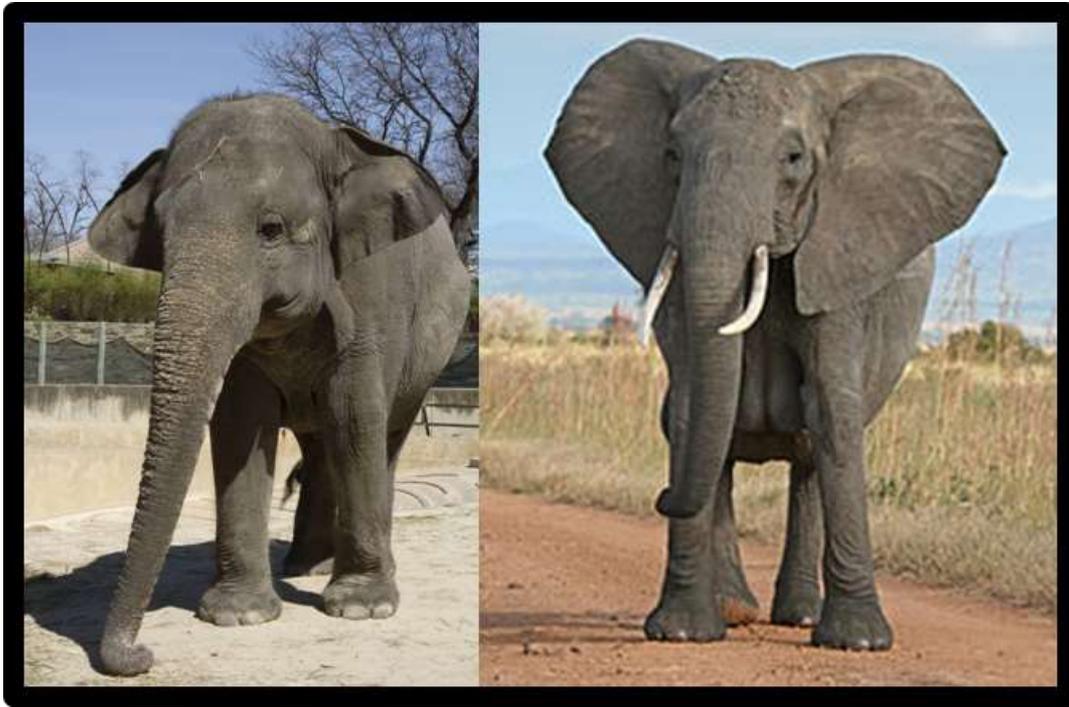
Jaguar



Cheeta

Some relationships which may surprise you

The closest living relative to the two elephant species...



the rock hyrax!

Some relationships which may surprise you

Dolphins and whales are closely related to...



hippos!

Some relationships which may surprise you

Rhinos are closely related to...



horses!

Some relationships which may surprise you

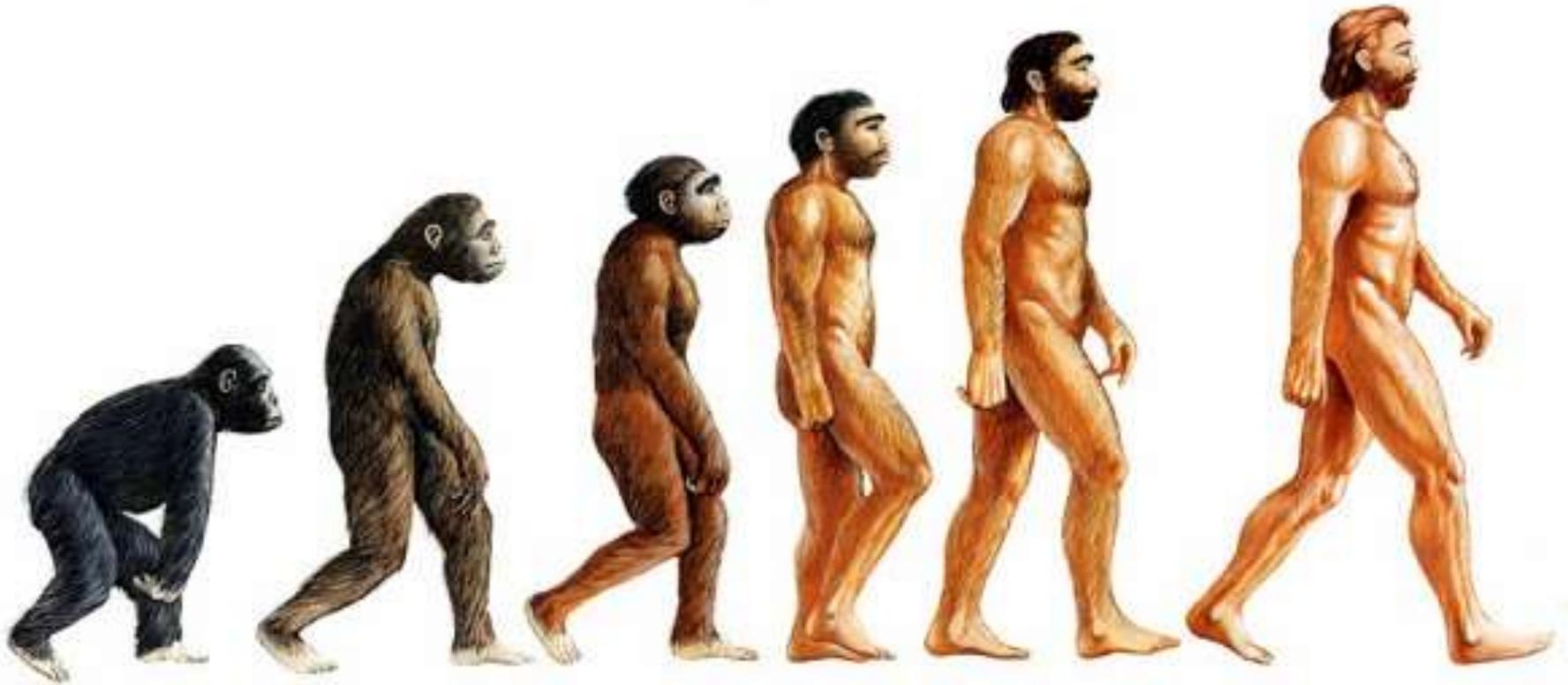
Hyenas are closely related to...



civets!

Spend 2 minutes brainstorming what you have learnt about human evolution in History. Then watch this clip... (“where and when did humans evolve?”)

How did evolution take place?



Organisms that were best adapted for
their environment survived and
reproduced

Their offspring (babies) also had similar genes and so had the best adaptations for the environment so they survived and had lots of offspring. Therefore they increased in number. This is natural selection.

Those that were not well adapted died before having many offspring so their populations decreased in number until there were none.

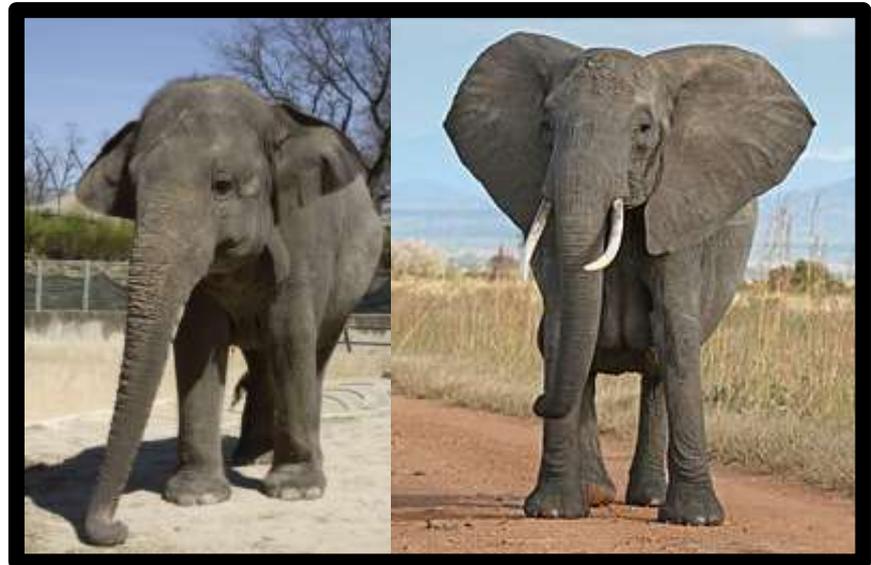
Evolution is basically where natural selection (learnt last lesson) has led to a completely new species

What is a species?

- Remember back to the lesson on classification....can you give an example?
- Animals in the same species are similar to each other.

What is a species?

Which of these images show members of the same species?



What is a species?

Which of these images show members of the same species?

2 species of penguin

2 jaguars

Members of the same species can appear to be very different to each other – the real test is whether or not they can breed together to produce fertile offspring.

How did evolution take place?

- Organisms that were best adapted for their environment survived and reproduced
- Their offspring also had similar genes and so had the best adaptations for the environment so they survived and had lots of offspring so they increased in number. This is natural selection.
- Those that were not well adapted died before having many offspring so their populations decreased in number until there were none.
- Eventually there was a whole new species with different features to its great-great-great-great-great-great (X1000)-grandparents.

Let's play the Survival of the Fittest Game

- ...write down in your notes the environmental factors that often led to changes

Task/Prep

- Write a fact sheet or poster all about natural selection. Choose an animal of your choice and show how it evolved.