

Key Words	
characteristic/trait	a feature or quality which can be used to identify a living thing
inherit	receiving a characteristic or trait from one's parents or ancestors
evolution	the change in the characteristics of a species over several generations which relies on the process of natural selection
natural selection	the process whereby the living things which adapt to their environment survive and produce more offspring
adapt	the process of change where an organism or species becomes better suited to its environment
offspring	a living thing's young/child
crossbreeding	when two different species are mated (animals) or hybridized (plants)
variation	the presence of differences between living things
theory	an idea intended to explain something
resistance	lack of sensitivity to something because of a genetic change
biodiversity	the variety of animal life in a particular habitat
Species	A species is a group of similar organisms that can breed with one another to produce fertile offspring. For example, humans are one species and dogs are another species.
Human characteristics: Some of our characteristics are inherited , some are caused by the environment we live in and some are caused by a combination of both .	
Type of characteristic	Examples
inherited characteristics	eye colour, hair colour, blood group, skin colour, ear lobe shape, nose shape
environmental characteristics	tan from the sun, scar from an accident, having a cold, hair style
both	height, weight, sporting ability, some health issues

Variation between **different species** is usually **greater** than the variation between the same species. There are 12 different species of fox, all from the same **ancestors**. The pictures below show the **variation of characteristics** between four different types of fox. Each type of fox has **adapted** to its **environment over time**.

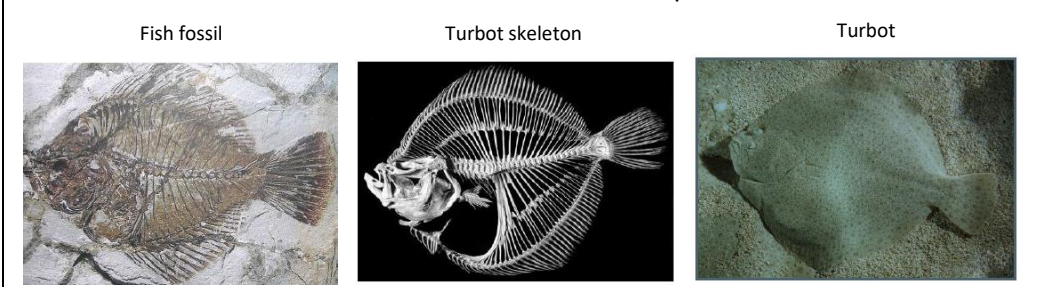


Charles Darwin:

- Famous English naturalist
- Born 1809
- Died 1882
- Created the **theory of evolution**
- Provided substantial evidence for the process of **natural selection**

Evidence for evolution:

- Fossils exist that show what organisms were like many millions of years ago
- Fossils show **variation** over time for the same species



- There are two different **variations** of peppered moth: light and dark
- Before the **industrial revolution**, most were light and few were dark
- During the industrial revolution, trees became black with pollution
- The light peppered moths got eaten by **predators** because they weren't camouflaged
- So, the dark peppered moth became more **popular**
- After the industrial revolution, the trees became cleaner
- The dark peppered moths got eaten because they were no longer camouflaged and the lighter moths became more popular