

DARWIN'S THEORY OF EVOLUTION

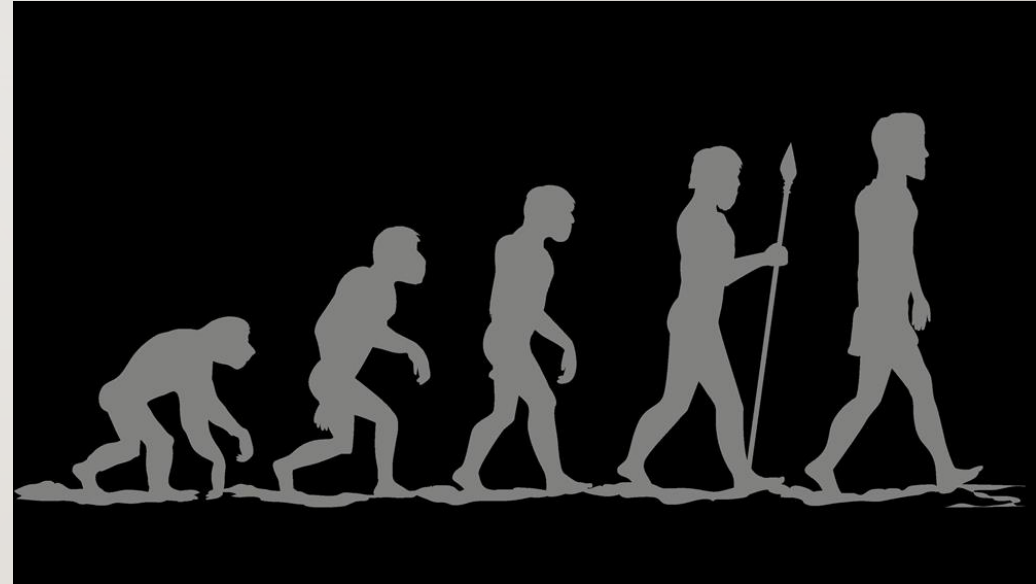
HOW HAVE HUMANS CHANGED OVER MILLIONS OF YEARS?



WHAT IS EVOLUTION?

- [What is evolution? - BBC Bitesize](#)
- **Watch the clip to remind yourselves what evolution is.**
- **How do you think humans have changed over millions of years?**

It was known for centuries that man and the apes were related. At heart, their anatomy is similar, despite many superficial differences. This was the reason why Buffon and Linnaeus, in the 18th century, put them together in one family. Charles Darwin's theory of evolution says that such basic structural similarity comes from the common origin of the group. The apes and man are close relatives, and are primates: the order of mammals which includes monkeys, apes, lemurs and tarsiers.



The great apes live in tropical rainforests. It is thought that human evolution started when a group of apes began to live more in the savannah.

A savannah is more open, with trees, shrubs and grass. This group started walking on two legs. They began to use their hands to carry things. Life in the open was different, and there was a big advantage in having better brains. Their brains grew larger, and they began to make simple tools. This process began at least 5 million years ago. We have fossils of two or three different groups of walking apes, and one was the ancestor of humans.



The biological name for "human" or "man" is Homo. The modern human species is called Homo sapiens. "Sapiens" means "thought". Homo sapiens means "the thinking man".

Paleoanthropology looks at ancient human fossils, tools, and other signs of early human life. It began in the 19th century with the discovery of a skull of "Neanderthal man" in 1856.

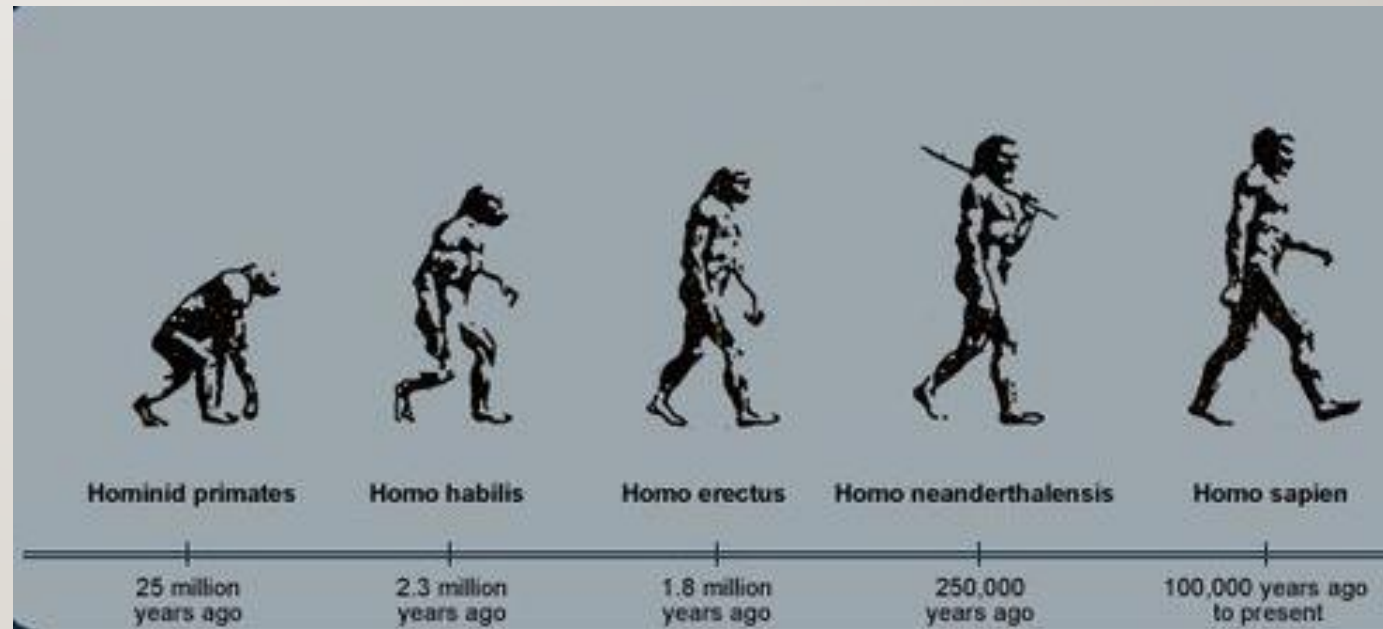
Modern human skull



Neanderthal man skull

THE EVOLUTION OF HUMANS - TASK

- Pose in each of the 5 main stages of Human's evolution.
- Take a photo in each pose
- You should have 5 photos showing the different phases of evolution.
- Write down the name of each phase, and the key information about each one.
- Use the next few slides for ideas.



HOMINID PRIMATES

- The Hominidae (/hɒ'mɪnɪdi:/), whose members are known as great apes or hominids, are a taxonomic family of primates that includes eight extant (still alive) species in four genera: **Pongo**, the Bornean, Sumatran and Tapanuli orangutan; **Gorilla**, the eastern and western gorilla; **Pan**, the common chimpanzee and the bonobo.



HOMINID HABILIS

- Homo habilis was an **early human species** that existed between 2.8 and 1.5 million years ago. They were a species of the Hominini - a tribe that existed during the Pleistocene period. The first fossils of Homo habilis were uncovered in the 1950s in Tanzania when scientists discovered their remains at Olduvai Gorge and gave them the name Homo habilis, meaning handy man,



HOMO ERECTUS

- Homo erectus (meaning 'upright man') is an extinct species of archaic human from the Pleistocene, with its earliest occurrence about 2 million years ago, and its specimens are among the first recognisable members of the genus Homo. H. erectus was the first human ancestor to spread throughout the Old World, having a distribution in Eurasia extending from the Iberian Peninsula to Java.



HOMO NEANDERTHALIS

- Neanderthal man is thought to have developed from Homo erectus or Homo heidelbergensis, though the widespread distribution of intermediate form hinders an attempt to resolve any single geographical locality as the place of development. The fate of Neanderthals is equally hard to determine. We know they went extinct between 28,000 and 24,000 years ago, but we don't know how or why.



HOMO SAPIEN

- Homo sapiens, (Latin: “wise man”) the species to which all modern human beings belong. Homo sapiens is one of several species grouped into the genus Homo, but it is the only one that is not extinct.
- The name Homo sapiens was applied in 1758 by the father of modern biological classification (see taxonomy), Carolus Linnaeus. It had long been known that human beings physically resemble the primates more closely than any other known living organisms, but at the time it was a daring act to classify human beings within the same framework used for the rest of nature.

