# Evidence of Common Ancestry & Evolution

## Anatomy – Phenotypes

Comparing the physical features and structures of different organisms – if they stemmed from a common ancestor we say they are homologies. If similar phenotypes are found due to similar selective pressures, not common ancestry, we call these analogies.

## DNA Sequences That Are Homologous

Comparing DNA sequences of organisms to understand how related they are to each other; in particular, Hox Genes which determine the form, number, and evolution of repeating parts of organisms can be studied between species to see how similar they are.

## Embryos

Comparing the similarities of organisms throughout their early development. All chordates have a similar development, showing the connection to a common ancestor.

## Fossils

Studying the preserved remains and traces of ancient organisms compared to modern organisms. Different types of fossils are present that can give us clues about ancestors and relationships between species.