



Fossils & Geological Time Knowledge Organiser

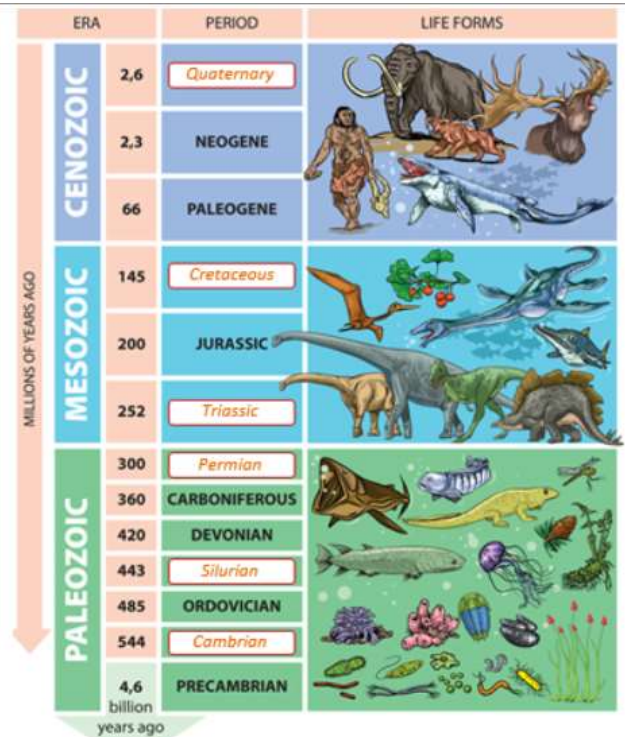
Key vocabulary

Million	A number that is equivalent to the product of a thousand and a thousand e.g., 1,000,000 (10 ⁶)
Billion	A number that is equivalent to the product of a thousand and a million e.g., 1,000,000,000 (10 ⁹)
Evolution	The process by which different kinds of living organisms have developed from early forms over time
Extinct	A species, family or group having no living members in existence.
Fossil	The remains or impression of prehistoric animals or plants preserved in rock
Palaeontologist	A scientist who specialised in life forms that existed in prehistoric times
Organism	A living thing, e.g., animal, plant, fungi or bacteria
Microorganism	A very small organism that cannot be seen with the naked eye
Bacteria	A specific type of microorganism present in huge numbers across most of the earth
Microscope	An instrument for looking at very small objects

Classification

People have always given living organisms names and attempted to group them together based on their similarities. The first system that has stuck around is the classification system described by Carl Linnaeus, in which he sorted organisms according to their structure (anatomy) and characteristics. He came up with a hierarchical system, where the larger groups contain all the smaller groups below them. It is called the Linnaean system, after him. These groups, in order of size (based on how many organisms fit in each one) are called: kingdom, phylum, class, order, family, genus and species. Species are what you think of as individual types of organism – like tigers, oak trees or great white sharks

Geological Time



Mary Anning (21 May 1799 – 9 March 1847) was an English fossil collector, dealer, and palaeontologist who became known around the world for important finds she made in Jurassic marine fossil beds in the cliffs along the English Channel at Lyme Regis in the county of Dorset in Southwest England.

Mary Anning



Carl Linnaeus



Carolus Linnaeus was a Swedish naturalist. He created two scientific systems: the system for classifying plants and animals and the system for naming all living things. Linnaeus is also called the Father of Systematic Botany. Botany is the study of plants.

Fossilisation

An animal dies. It gets covered with sediments which eventually become rock.	More layers of rock cover it. Only hard parts of the creature remain, e.g. bones, shells and teeth.	Over thousands of years, sediment might enter the mould to make a cast fossil . Bones may change to mineral but will stay the same shape.	Changes in sea level take place over a long period.	As erosion and weathering take place, eventually the fossil becomes exposed.