

# Pye Bank CE Primary DSAT Knowledge Organiser

**YEAR 4**

**GEOLOGY: FOSSILS**

**SCIENCE**

## KEY VOCABULARY

**fossil** - the hardened remains or imprint of an ancient living thing, which has been preserved in rock.

**Fossilisation** - the process of an animal or plant becoming preserved in rock.

**Organism** –any living thing. An **organism** has 5 basic needs: air, water, food, energy and a place to live.

**Palaeontologist** – a scientist who studies life forms that existed millions of years ago by looking at fossils.

**sediment** - the matter which falls to the bottom of oceans and lakes.

**terrestrial** - things related to land or the planet Earth.

**marine** - - things related to the sea or ocean.

**extinct** – **when an** entire species, or type, of animal dies out, that species is **extinct**. Once a species becomes **extinct**, it is gone forever.



## KEY SCIENTIST



**Mary Anning**  
**21 May 1799 –**  
**9 March 1847**

Mary Anning made many incredible fossil discoveries. This made her famous among some of the

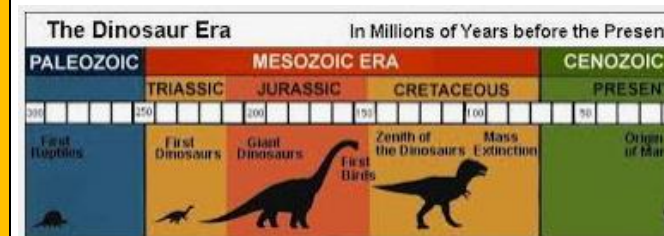
most important scientists of the day. They would visit her for advice and to discuss scientific ideas about fossils. Today, Mary is remembered as one of the greatest fossil hunters to have ever lived.

## STICKY KNOWLEDGE

1. **Fossils** represent the remains of once-living **organisms**.
2. Most **fossils** are the remains of **extinct organisms**; that is, they belong to species no longer living anywhere on Earth.
3. The kinds of **fossils** found in rocks of different ages differ because life on Earth has changed through time.

## KEY CONCEPT

When did dinosaurs live and how do we know about them?



Everything we know about **dinosaurs** is based on fossils, which include bones, teeth, footprints, tracks, eggs, and skin impressions.



## KEY CONCEPT

How are fossils formed?

1. Animal dies and is buried by sediment
2. Extreme pressure turns sediment into stone
3. Skeleton dissolves and leaves a hole/mold
  - Dissolved by ground water
4. Minerals crystallize in hole and a cast is formed
  - Mineral rich water enters mold and leaves minerals
5. Millions of years later, the fossil is exposed on the Earth's surface
  - Earthquakes, mountain building, construction, digging/drilling

