

Rocks, Fossils and Soils Knowledge Organiser – Year 3

Key learning objectives

- I can name some types of rocks.
- I can describe the physical features of some rocks.
- I can classify rocks in a range of ways.
- I can devise tests to explore the properties of rocks.
- I can use data to rank rocks.
- I can link rocks changing over time with their properties e.g. soft rocks get worn away more easily.
- I can explain how a fossil is formed.
- I can present my understanding of how fossils are formed in different ways.
- I can explain that soils are made from rocks and also contain living/dead matter.
- I can identify plant/animal matter and rocks in samples of soil.
- I can devise a test to explore the water retention of soils.

Igneous



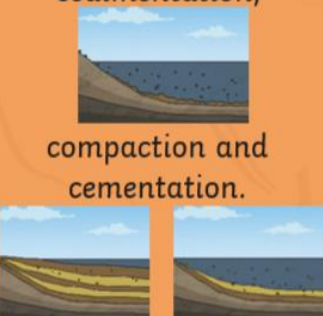
Formed from magma or lava.



Sedimentary



Formed under the sea as a result of sedimentation,



compaction and cementation.

Metamorphic



Metamorphic rocks are igneous or sedimentary or rocks that change chemically due to proximity to magma, huge pressure from burial or changes in tectonic plates.



Igneous rocks



granite



obsidian

Sedimentary rocks



chalk



limestone

Metamorphic rocks

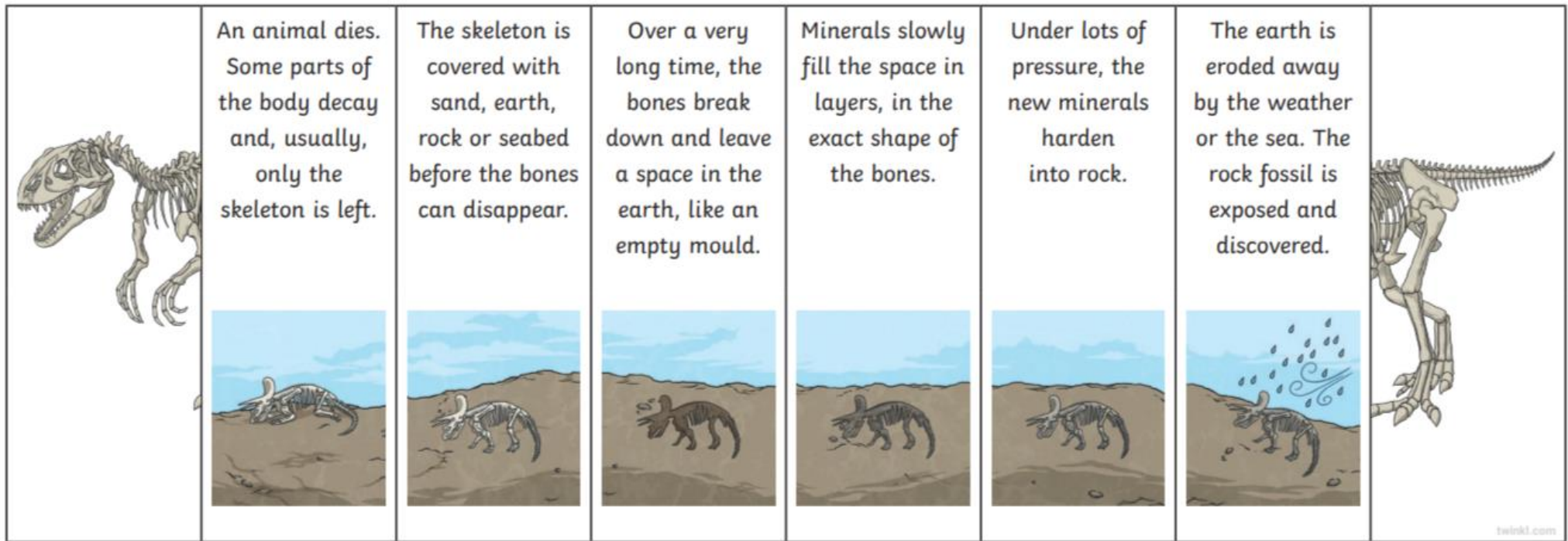


slate



marble

How fossils are formed



Soil

There are many types of soil. These include:

- sandy – mostly made up of sand. water drains well through it.
- loam – a mixture of sand, silt and clay. It holds on to most of its nutrients and keeps enough water for plants to grow well.
- clay – holds lots of water and nutrients
- peat – formed from dead moss, shrubs and grass. It is very high in nutrients
- chalk – contains lots of chalk so plants find it hard to grow. It drains water quickly.
- silt – medium sized particles which hold on to enough water for plants to grow.

