

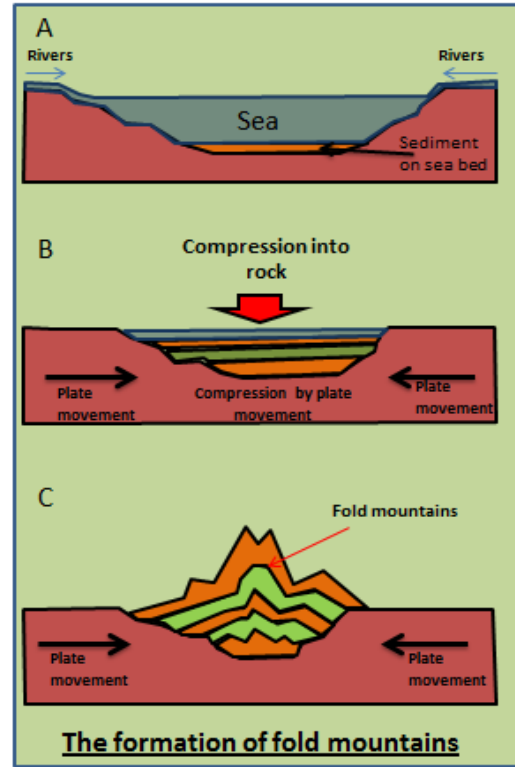
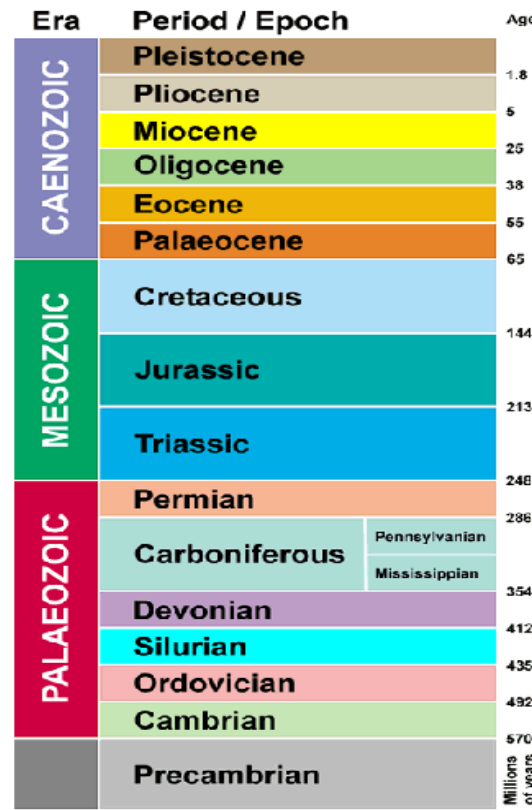
Rocks & Landscapes Knowledge Organiser

There are three types of rock:
Igneous
Sedimentary
Metamorphic
 Each of the different rock types has different properties...

Igneous rocks are formed when liquid rock, called magma, cools down. They are made up of lots of interlocking crystals. The crystals fit very tightly together making the rock very hard.
 Extrusive rocks form above the ground and contain small crystals. Intrusive igneous rocks form underground and contain large crystals because they cool slowly, allowing the crystals to get bigger over time.
 Igneous rocks do not contain fossils because they would melt in the hot magma.
Examples: granite, basalt, obsidian.

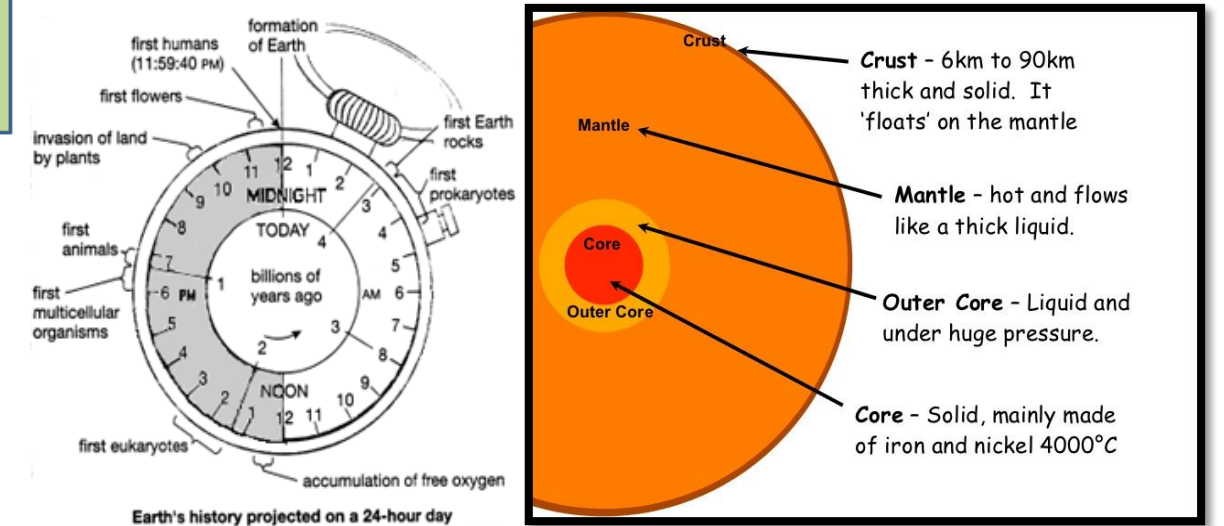
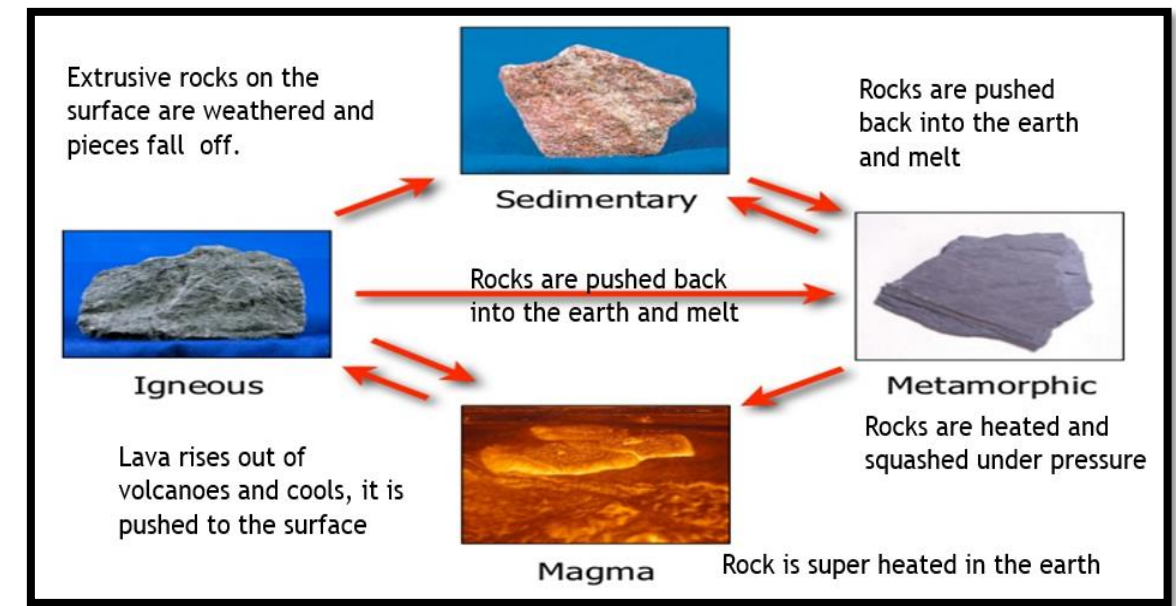
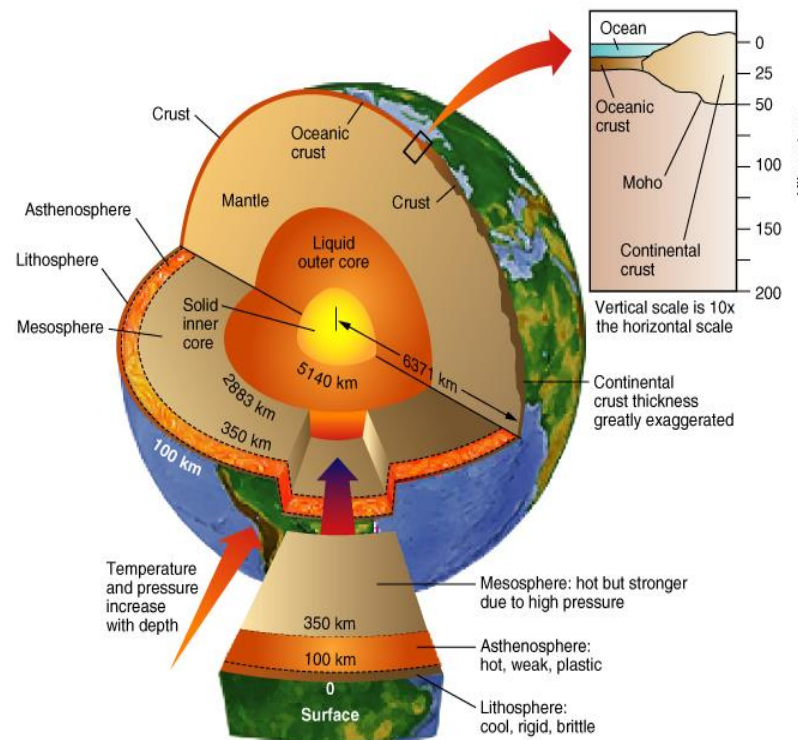
Sedimentary rocks are made up of sediment – tiny rock particles and bits of dead animals and plants. The rock is formed when layers of sediment deposited in lakes and seas are cemented together over millions of years.
 Grains of sediment are usually rounded. This means that they do not fit together very closely, making the rock soft and crumbly.
 The remains of dead animals and plants can be trapped in sediment when it is deposited, forming fossils over time.
Examples: limestone, chalk, sandstone.

Metamorphic rocks are formed from other rocks that are chemically changed by pressure from surrounding rock, or by the heat of nearby magma. They are made up of interlocking crystals. When a rock is formed under pressure, its crystals become arranged in layers. The rocks are usually quite hard but can break easily along these layers.
 Metamorphic rocks sometimes contain fossils if they were formed from a sedimentary rock, but the fossils are usually squashed out of shape.
Examples: slate (formed from shale), marble (formed from limestone).



Fold mountain formation

- Fold mountains are mountains formed from folding of the earth's crust and tend to be made of sedimentary rocks.
- The crust of the earth is made up of plates. These plates move around very, very slowly.
- When two plates of similar density push together folding of the crust takes place.
- The crust is squashed together and forced upwards. Sedimentary rocks are forced upwards into a series of folds.
- The whole process takes millions of years



Key words

1. Water dripping from the roofs of caves leave behind microscopic particles of calcium carbonate. These build up as icicle shaped features. **Stalactite**
2. Drips splashing onto the floor of caves leave behind microscopic particles of calcium carbonate. These build up on the floor of caves. **Stalagmite**
3. Where a stalagmite and stalactite join you get a **pillar**.
4. An underground cave that has been hollowed out by the action of underground streams and by carbonation and solution. **Cavern**
5. Water flowing over an impermeable surface will, on reaching (permeable) limestone, be able to dissolve the joints into grooves. **Grykes**
6. Water flowing over an impermeable surface will, on reaching (permeable) limestone, leave blocks or clumps of limestone behind. **Clints**
7. When water flows down a swallow hole it flows underground along bedding planes and down joints. This continues until the water reaches and impermeable layer of rock then it is forced back to the surface (a spring). **Resurgence**
8. Is a sedimentary rock formed from the remains of tiny shells and micro-skeletons deposited on the sea bed. **Limestone**
9. hollow place in the ground, a natural underground space large enough for a human to enter **Cave**
10. fine-grained natural rock or soil material that can be sticky to the touch when wet **Clay**