



**Lesson Sequence**



1. Explore the formation and properties of igneous rocks



2. Explore the formation and properties of sedimentary and metamorphic rocks



3. Weathering and the suitability of rocks for different purposes



4. Explore how water contributes to the weathering of rocks



5. Understand how fossils are formed



6. Explore different types of soil

**What is soil made from?**



**AIR** – Oxygen, carbon dioxide, nitrogen  
**ORGANIC MATTER** – Living and dead plants and animals.  
**WATER** – Air and water fill the gaps between particles of soil.  
**MINERALS** – Broken down rock.

chalk	flint	marble	limestone	sandstone	granite

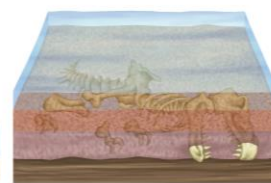
Igneous Rock	Metamorphic Rock	Sedimentary Rock
Far underground the temperature is so hot, rock melts into a liquid (molten rock). When the liquid is underground, it is called magma and it can cool to form igneous rock.	Metamorphic rocks are formed under the surface of the earth from the change (metamorphosis) that occurs under the intense heat and pressure (squeezing).	These rocks form under the sea. Rocks are broken into small pieces by wind and water (erosion). They settle as mud, sand, minerals and even remains of living things. Over time layers build up and the pressure turns this sediment into rock.

**How fossils are formed.**

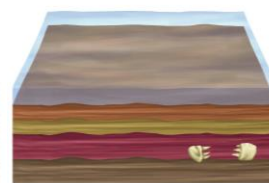
The dinosaur dies in a river.



The body is covered with sediment. The meat decomposes. The dinosaur becomes a fossil.



The sediments become rock. The skeleton is pressed.



The earth's movements raise the layers of the rocks to the surface.



The rock erodes, exposing the fossil.





### Rocket Words

igneous rocks	rocks created from solidified lava
intrusive igneous rock	rock that has been formed under the Earth's surface over a long period of time
extrusive igneous rock	rock that has been formed from molten lava and either cooled quickly or slowly
magma	hot liquid rock below the surface of the Earth. When a volcano erupts it can be seen, and is called lava
sedimentary rock	rocks that are made from layers of sediment that has been subjected to heat and pressure
metamorphic rock	rocks that have changed from igneous or sedimentary through heat and pressure
weathering	the wearing away of rocks which are broken down into smaller pieces
Acid rain	rain which has been made too acidic by air pollution
erosion	the wearing away of rocks by wind or water
fossil	the imprint of a prehistoric plant or animal embedded in rock
decompose	the process where dead animals and plants break down into smaller parts
fragments	small pieces