# Science Knowledge Organiser

| Rocks | Yr 3 | Main Foci: Chemistry |
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## Year 3 Term 2 Rocks

**What should I already know from Year ½?**

I have identified and named a variety of everyday materials, including stone, rock, brick in year 1.

In year 1, I have described the simple physical properties of a variety of everyday materials: hard/soft; shiny/dull; rough/smooth; opaque/transparent.

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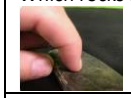
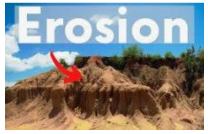
| How can I classify rocks?<br> | I know sedimentary rocks are made from visible layers<br>I know sedimentary rocks are often dusty<br>I know igneous rocks are formed by the cooling down of lava (liquid rock)<br>I know metamorphic rocks are much heavier than the other types of rock of equal size<br>I know metamorphic rocks have been changed by heat or pressure while buried deep below Earth's surface. |
| How can I test if a rock is permeable?<br> | I know that permeable means that air and water can flow through the rock.<br>I know that impermeable means the grains / crystals are so closely joined together that neither air nor water can flow or get trapped inside the rock. |
| How do animals become fossils?<br> | I know that fossils are rocks that show evidence of life on Earth millions of years ago.<br>I know it is very rare for fossils to form<br>I know how fossils are formed.<br>I know a body (plant or animal) or trace is buried under small grains of rock, called sediment.<br>I know that as more layers of sediment build up on top, the sediment around the object begins to compact and turn to rock. |
| Which rocks are heavier?<br> | I know granite and marble rocks are heavier than slate and chalk. |
| Which rocks are harder?<br>  | I know that when you scratch a rock with a nail it may or may not leave a mark. |
| How can I tell that soil is rocks?<br>  | Rocks are eroded to create soil, Rocks can be eroded by:<br>Rubbing against each other<br>Wind blowing against soft rock<br>Rain washing away soft rock<br>Water being absorbed by rock and then turning into ice - breaking the rock<br>Rivers and waves crashing against banks and cliffs. |

| Vocabulary | |
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| Compression | **Flatten by pressure – squeeze or press** |
| Crystals | A rock with geometric faces |
| Dense | Closely compacted |
| Erosion | Materials are worn away by natural forces |
| Fossil | Remains of a prehistoric being embedded in rock |
| Layers | Typically one or several covering something else |
| Sedimentary | A rock formed of sediment |
| Metamorphic | **A rock that has undergone transformation by heat or pressure.** |
| Igneous | A rock made from solidified lava or magma. |
| Texture | The feel, appearance or consistency of something. |
| Permeable | Allows liquid or gas to pass through |
| Porous | Having small spaces or holes in it |
| Durable | Able to withstand wear, pressure or damage |