

Year 3 – **Rocks** (biology, chemistry, physics)

NC objectives

- compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
- describe in simple terms how fossils are formed when things that have lived are trapped within rock
- recognise that soils are made from rocks and organic matter.

Prior learning

- Distinguish between an object and the material from which it is made. (Y1 - Everyday materials)
- Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials)
- Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials)
- Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 - Everyday materials)
- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Y2 - Uses of everyday materials)

Future Learning

- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. (Y6 - Evolution and inheritance)
- The composition of the Earth. (KS3)
- The structure of the Earth. (KS3)
- The rock cycle and the formation of igneous, sedimentary and metamorphic rocks. (KS3)

Key vocabulary	Common misconceptions
<p>Rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, texture, absorb water, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalk/clay soil</p>	<p>Some children may think:</p> <ul style="list-style-type: none"> • rocks are all hard in nature • rock-like, man-made substances such as concrete or brick are rocks • materials which have been polished or shaped for use, such as a granite worktop, are not rocks as they are no longer 'natural' • certain found artefacts, like old bits of pottery or coins, are fossils • a fossil is an actual piece of the extinct animal or plant • soil and compost are the same thing.
Areas of enquiry	Hook suggestions
<ul style="list-style-type: none"> • Observation over time - What happens when water keeps dripping on a sandcastle? • Comparative and fair testing - Which soil absorbs the most water? Which rock is the hardest? • Identifying and classifying - Can you use the identification key to find out the name of each of the rocks in your collection? 	<p><u>Books</u> The Pebble in my Pocket by Meredith Hooper</p> <p><u>Scenarios</u> Scenario – Robinson Crusoe needs to be able to crack coconuts on the island as easily as possible. He has a selection of different rocks and wants to find the hardest. (Comparative & fair testing)</p>

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| <ul style="list-style-type: none">• <i>Pattern seeking - Is there a pattern to which rocks contain fossils?</i>• <i>Researching using secondary sources - Who was Mary Anning and what did she discover?</i> | |
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