



Year 3 – Materials (Rocks, soils and fossils)



Working Scientifically	Sticky Knowledge	Linked Texts	Key Scientists
- Recall and use specific scientific vocabulary accurately (year group key vocabulary) - Ask relevant questions and use different types of scientific enquiries to answer them, include making their own questions - Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers - Gather, record, classify and present data in a variety of ways to help in answering questions - Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	There are different types of rock. There are different types of soil. Soils change over time. Different plants grow in different soils. Fossils tell us what has happened before. Fossils provide evidence. Paleontologists use Fossils to find out about the past. Fossils provide evidence that living things have changed over time.	<i>The Pebble in My Pocket</i> (Meredith Hooper) <i>Stone Girl, Bone Girl</i> (Laurence Anholt) <i>The Street Beneath My Feet</i> (Charlotte Guillain & Yuval Zommer)	Mary Anning (Discovery of Fossils) James Hutton (rocks and natural processes on them)
Key Question(s):	Key Question(s):	WS vocabulary	
How is the way sedimentary rocks formed different to how igneous rocks are formed? Can you choose two types of rock and compare them by describing their physical properties? Can you describe how rocks can be useful? Can you explain one use for marble and why it is suitable for that purpose? What types of rocks are there? How do rocks change Can you explain how fossils are formed? What is soil made from? Can you explain the properties of metamorphic rock?	How are the soils different? Which do you think has best drainage? Which is more likely to lead to flooding? How might the soil be different in different countries? What rock is best for a kitchen chopping board? What might be the issues with various materials and what they have to withstand? Why do you think worms are important to the creation of soil? Why do fossils help us find out about historical events? If you could fossilise an object what would it be?	Investigation, enquiry, prediction, variable, dependent variable, independent variable, constant, patterns, equipment, apparatus, method, results, conclusion, graph, patterns, distance, data, theory, fair test, reasoning	

Teaching suggestions in Enquiry types

<u>Comparative tests</u>	<u>Identify & Classify</u>	<u>Observation over time</u>	<u>Pattern Seeking</u>	<u>Research</u>	<u>BIG Question – Problem solving</u>
How does adding different amounts of sand to soil affect how quickly water drains through it? Which soil absorbs the most water? 	Can you use the identification key to find out the name of each of the rocks in your collection? 	How does tumbling change a rock over time? What happens when water keeps dripping on a sandcastle? 	Is there a pattern in where we find volcanos on planet Earth? 	Who was Mary Anning and what did she discover? 	What are rocks and soils like? (Also use EXPLORIFY) <u>Assessment Opportunity</u> 