

Rocks	Science	Years 3 & 4, Term 1	Year A
Key vocabulary: Rock, compare, group, appearance, properties, sedimentary, igneous, metamorphic, fossil, organic matter, grains, crystals, permeable, impermeable.			
Knowledge and skills: Ask relevant questions and use different types of scientific enquiries to answer them. (B1) Set up simple practical enquiries, comparative and fair tests. (B2) Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. (B3) Gather, record, classify and present data in a variety of ways to help in answering questions. (B4) Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. (B5) Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. (B6) Identify differences, similarities or changes related to simple scientific ideas and processes. (B8) Use straightforward scientific evidence to answer questions or to support findings. (B9) Recognise that soils are made from rocks and organic matter. (B33) Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. (B34) Describe in simple terms how fossils are formed when things that have lived are trapped within rock. (B35) Compare and group materials together, according to whether they are solids, liquids or gases. (B46) Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius. (B47)		Possible activities: Explore rocks and soils in the local environment. Observe rocks used in buildings and gravestones and how these have changed over time. Discuss the suitability of different rocks for different purposes. Identify and classify rocks according to different characteristics. Explore different soils and identify similarities and differences between them. Investigate what happens when rocks are rubbed together or immersed in water. Form sedimentary and igneous ‘rocks’ using chocolate.	
Spiritual, Moral, Social and Cultural Education and Promotion of British Values: Spiritual: Rocks have existed for millions of years. Children will consider the scope and wonder of the natural world and the fact that science does not answer every question we may wish to ask. Moral: Not all scientific developments have caused positive change; some have brought about damage to people and the environment. Ethical considerations are vital when undertaking scientific research. Social: Children will work in groups to plan experiments. They will respect each other’s predictions and work together to carry out investigations. Cultural: Gravestones are made from rocks. Scientists are well respected in British culture, particularly after the pandemic highlighted their importance in our lives. British Values: Encourage children to accept responsibility for their behaviour. Children will show respect for each other’s thoughts and ideas during discussions. We know that our behaviour affects our rights and the rights of others; children will behave in a way that allows everyone to learn and achieve their potential.			