

 PARK LANE PRIMARY SCHOOL	YEAR 3 ROCKS			SCIENCE
PRIOR KNOWLEDGE		COMMON MISCONCEPTIONS		
Builds on previous EYFS objectives: • Talk about what they see, using a wide vocabulary. • Explore the natural world around them.		• Rocks are static: Children may perceive rocks as unchanging objects. In this unit, children will learn that rocks can undergo various transformations over time. • Rocks are all the same: Children may view rocks as being uniform and identical. They will learn that rocks come in different types, compositions, and formations, resulting in their diverse appearances and properties. • Rocks are only found on land: Children may associate rocks exclusively with terrestrial environments. This unit looks at rocks that are also found in bodies of water, such as oceans, rivers, and lakes, and how they play a significant role in shaping underwater landscapes. • All fossils are dinosaur bones: Children may assume that all fossils are the remains of dinosaurs. They will begin to understand that fossils can include the preserved remains of plants, insects, shells, and other ancient organisms.		
Lesson Intention	National Curriculum Reference	Scientific Enquiry	Rocket Words	Resources
Explore the formation and properties of igneous rocks	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties	Answering Questions through Collecting, Analysing & Presenting Data (Problem-Solving) Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	➤ Katia & Maurice Krafft igneous rocks intrusive igneous rock extrusive igneous rock crystals magma	Chocolate chips, coconut oil, ice cubes, cooking equipment (including a microwave or hob), caster sugar, golden syrup, bicarbonate of soda, a wooden spoon and a food container
Explore the formation and properties of sedimentary and metamorphic rocks	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties	Answering Questions through Collecting, Analysing & Presenting Data (Problem-Solving) Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	sedimentary rock metamorphic rock limestone marble sandstone	A selection of rocks to test, sandpaper, nails, small wooden spoons, water, pipettes, a bowl of water and a microscope or magnifying glass
Weathering and the suitability of rocks for different purposes	Explore how and why [rocks] might have changed over time (non-statutory)	Pattern Seeking Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	weathering chemical weathering physical weathering biological weathering acid rain	Vinegar, a pipette, a selection of different rocks and colouring pencils
Explore how water contributes to the weathering of rocks	Compare and group together different kinds of rocks on the	Observing Over Time Making systematic and careful observations and, where appropriate,	Appearance Texture Submerged	A variety of different rocks, bowls of water, weighing scales and a timer

	basis of their appearance and simple physical properties	taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	Erosion receding	
Understand how fossils are formed	Describe in simple terms how fossils are formed when things that have lived are trapped within rock	Pattern Seeking Identifying differences, similarities or changes related to simple scientific ideas and processes with support	➤ Mary Anning Fossil Extinct Sediment Embedded amber	Salt, flour, coffee grounds, cold coffee or water, a mixing bowl, a mixing spoon and objects to create imprints
Explore different types of soil	Recognise that soils are made from rocks and organic matter	Observing Over Time Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	Decompose Fragments clay soil chalky soil sandy soil	Samples of different soils (for instance, peat soil, clay soil, sandy soil, silt soil, loam soil or chalky soil), beakers, a measuring cylinder, filter paper, a funnel, a teaspoon, a magnifying glass and pipettes