

Year 3 Progression map – Rocks:		
National curriculum objectives:	Scope:	Coherence:
<ul style="list-style-type: none"> 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 <p>Misconceptions:</p> <ul style="list-style-type: none"> That rocks have always been where we find them now That rocks cannot change All rock is hard Rocks are waterproof That soil has no value and is simply dirt Volcanoes are simply destructive and always dangerous That people can make rocks Fossils are found in the ground Fossils can be found in any type of rock 	<p>HEP Science lesson titles:</p> <ol style="list-style-type: none"> How can we describe rocks? How do volcanoes make igneous rocks? Where can we find fossils? Can rocks be changed? Can we recycle rocks? Why is soil important? <p>Working scientifically skills used:</p> <ul style="list-style-type: none"> Observe and classify different types of rocks Predict crystal size Conclusion crystal size Modelling rock formation, the rock cycle and soil and make simple conclusions using models <p>Key scientists and inventors:</p> <ul style="list-style-type: none"> Frederick Mohs – Mineralogist Alfred Wegener – Astronomer and meteorologist James Hutton - Geologist 	<p>Literacy:</p> <p>Use of Frayer model to break down tier 3 vocab, Reporting on findings, including oral and written explanations, story boards, text comprehension</p> <p>Key vocabulary:</p> <p>crust, meteorites, minerals, granite, mineralogist, porosity, properties, talc, crystal, lava, magma, obsidian, pumice, boulder, continents, fossils, meteorologist, palaeontologist, pebble, sediment, metamorphic, pressure, temperature, bedrock, humus, organic matter, silt, topsoil, waterlogged</p> <p>Geography:</p> <p>Aspects of physical geography in rocks and soils</p> <p>Maths:</p> <p>ranking, counting, sequencing, puzzle problem solving, estimating</p> <p>Art:</p> <p>to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]</p> <p>DT</p> <p>generate, develop, model and communicate ideas use a wider range of materials and components, including construction materials, textiles and</p>

		ingredients, according to their functional properties and aesthetic qualities prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
Builds on:	Future learning:	Further reading:
Year 2: <ul style="list-style-type: none"> identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching 	Year 3: Contact forces and the effects of friction Year 4: Melting, freezing, evaporation and condensation Year 6: recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago Micro-organisms	Rocks (Science in a Flash) Georgia Amson-Bradshaw Rocks and fossils (Science skills sorted)! Anna Claybourne

Note: Rocks and the rock cycle also form part of the Key stage 3 syllabus. This unit goes beyond ‘appearance’ to explain simple physical properties. For example, it is difficult for pupils to understand how fossils are formed and how things can be trapped in rocks without an understanding of how sedimentary rocks are made through formation of layers. Equally, it is important for children to understand that the heat and pressure used to form other types of rocks mean fossils would not have been preserved. Therefore, pupils also learn about the formation of igneous and metamorphic rocks.

Simple models are used to embed meaning of these physical processes.