Rocks and Soils – Year 3 Unit – Autumn Term 1st and 2nd – Year A

Retrieval vocab:	**Previous learning**	**Links with Vision and Values.**
Materials, properties, sort, group, identify, compare. **New Vocab** 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	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)	*Stimulate in every child a sense of curiosity and excitement about the world*

	Working scientifically/ enquiry focus	**Curriculum Strand/ Focus**	**Small step objective**	**Previous learning within the unit.**	**Lesson content**	**Outcome**
1	Identify and classify	Rocks and soils	Identify the three different types of rock – Igneous, sedimentary, metamorphic and compare different kinds of rocks based on their appearance.	*NA*	What are the 3 different types of rock?	**The children can**: use the appearance of rocks to group and compare them. Name the three different types of rocks. -
2	Identify and classify	Rocks and soils	Compare different types of rocks based on their appearance – manmade and natural rocks.	*Use the appearance of rocks to group and compare them.*	Which rocks and natural? Which rocks are manmade?	**The children can**: explain the difference between natural and manmade rocks. Use

				Name the three different types of rocks.		the appearance of rocks to group and compare them.
3	Comparative testing Pattern seeking	Rocks and soils	Investigate the simple physical properties of natural rocks.	*As above* Explain the difference between natural and human-made rocks. Use the appearance of rocks to group and compare them.	What are the properties of different rocks? Can any patterns be observed?	**The children can**: carry out simple testing on a variety of natural rocks.
4	Identify and classify	Rocks and soils	Group together different kinds of rocks according to their simple physical properties in the context of natural rocks.	*As above* *carry out simple testing on a variety of natural rocks.*	How can we group rocks according to their properties?	**The children can**: group together different rocks according to their properties.
5	Research	Rocks and soils	Describe in simple terms how fossils are formed when things that have lived are trapped within rock.	*As above* *Group together different rocks according to their properties.*	How are fossils formed?	**The children can**: order the fossilization process correctly.
6	Research Ideas over time	Rocks and soils	Identify changes related to simple scientific ideas in the context of theories about fossils. Explain Mary Anning's contribution to palaeontology.	*As above* *Order the fossilization process correctly.*	Who was Mary Anning?	**The children can:** explain what a palaeontologist does. Understand why Mary Anning's fossil findings were important

7	Identify and classify	Rocks and soils	Recognise that soils are made from rocks and organic matter by explaining how soil is formed.	*As above* *Explain what a palaeontologist does. Understand why Mary Anning's fossil findings were important*	How is soil made?	**The children can:** explain what soil is made of. Describe the 4 processes of soil formation
8		Rocks and soils	Understand how compost is formed and its importance to the health of soil.	*As above* *Explain what soil is made of. Describe the 4 processes of soil formation*	How is compost made?	**The children can:** Explain how compost is made by creating their own compost. Explain why compost is important for soil health.
9	Comparative/ fair testing	Rocks and soils	Investigate the permeability of different soils.	*As above* *Explain how compost is made by creating their own compost. Explain why compost is important for soil health.*	How can we find out which soil is the most permeable?	**The children can:** Conduct a fair test - observe how much water has filtered through different types of soil, use the same equipment and length of time for each observation. Record observations accurately in a table.
10	Comparative/ fair testing	Rocks and soils	Report on the findings from the soil permeability investigation.	*As above* *Conduct a fair test - observe how much water has filtered through different types of soil, use the same equipment and length of time for*	How can we present our results from our permeability investigation?	**The children can:** use simple scientific language accurately in their conclusion. Present their findings using a bar chart.

				each observation. Record observations accurately in a table.		
1 1	Comparative/ fair testing	Rocks and soils	Investigate how different soil mixtures can be separated through sedimentation, decantation and filtration.	*As above* *Use simple scientific language accurately in their conclusion. Present their findings using a bar chart.*	How can we separate different soils?	**The children can:** : separate soil mixtures using sedimentation, decantation and filtration. Draw and label a scientific diagram