Year 3 Term 2

How useful is the world around us?

SCIENCE



National Curriculum Links:

Ask relevant questions and use different types of scientific enquiries to answer them.
Set up simple practical enquiries, comparative and fair tests.
Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.
Make systematic and careful observations and, where appropriate, take 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.
Use straightforward scientific evidence to answer questions or to support their findings.
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.

Essential Prior Learning:

Wood, metal, plastic, glass, brick, rock, paper and cardboard are all examples of materials.
Some materials occur naturally in the world; others need to be made.
There are observable differences between materials, and they can be compared and grouped according to these.
Children have identified and compared the suitability of a variety of everyday materials, including rock, for particular uses.
Children have explored and compared the difference between things that are living, dead, and things that have never been alive.

Progression in Skill:

Demonstrate a curiosity about the world.
Use secondary sources to find information and answer questions: books, photographs, videos.
Conduct simple practical enquiries that are comparative or fair tests.
Create a model.
Draw and label a simple diagram and complete a bar chart template (fossilisation, rock formation, magnets).
Make systematic and careful observations.
Take accurate measurements using standard units: hand lens.
Develop criteria to group, sort and classify, taking into account similarities and differences or changes related to simple scientific ideas and processes.
Use simple keys.
Use straightforward scientific evidence to develop explanations to answer questions.
Draw simple conclusion, e.g. the …-er the … the …-er the …
Explore the work of: Sanjeev Gupta (geologist), Barnum Brown.
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.

Long-term Memory Knowledge:

Compare and group different kinds of rocks according to their physical properties.
Explain how fossils are formed.
Know what soil is made from.
Create criteria by which to classify rocks.
Use secondary information to learn more.
Use scientific vocabulary accurately.

Key Vocabulary	
erosion	the process of being worn by wind, water, or other natural agents
magma	hot fluid or semi-fluid material **below** or within the earth's crust
lava	hot molten or semi-fluid rock that has **erupted from** a volcano
fossil	any preserved sign of past life more than 10000 years old
sedimentary	rocks formed from other rocks or once living organisms
metamorphic	rocks formed when they experience high heat or pressure
igneous	when hot, molten **rock** crystallizes and solidifies
permeable	allows liquids or gases to pass through
impermeable	doesn't allow liquids or gasses to pass through

Progression in Resources:

Hand lenses
Range of different types of rock and soil

Relevance	
Now	Children know where fossils come from and why not everything that has lived becomes a fossil; they see rocks as something potentially useful.
Future	Children can select materials for a purpose, according to their properties.
Aspiration	Use natural materials for specific purpose, e.g. sculptor or stonemason. Develop a love for fossils and study as a palaeontologist.