

Our Intent is: To develop inquisitive children who are excited about investigating with curiosity, "How can scientific enquiry explain the world?" Exploring answers by gathering and analysing evidence.



Forton Primary School Science

Clougha Class
Spring 2
Year B

Etymology - erosion – from French erodere ‘wear or gnaw away’.



The Pebble in my Pocket
A History of Our Earth
By Meredith Hooper and Chris Coady

Key Concept: Rocks

Key Question: Why is soil important to the Earth?

Are all rocks the same?

What can a permeable rock do, that an impermeable rock can't?

N.C. LINKS: Rocks - Pupils should be taught to:

- 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.

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<p style="text-align: center;">Unit Overview:</p> <ul style="list-style-type: none"> • Comparing physical properties of a selection of rocks. • Rock formation and fossil formation. • Recognize that soil is made from rocks and organic matter. 	<p style="text-align: center;">Vocabulary:</p>	
<p>New Knowledge Progression:</p> <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. 	<p>Building on Prior learning KS1:</p> <ul style="list-style-type: none"> • I Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, water, rock, paper and cardboard for particular uses. 	<p>Building on Prior learning when A follows B:</p> <ul style="list-style-type: none"> • Compare and group materials together, according to whether they are solids, liquids or gases. • Observe that some materials change state when they are
<p style="text-align: center;">Subject Specific:</p> <p>Igneous rock, sedimentary rock, metamorphic rock, magma, lava, sediment, permeable, impermeable, fossilisation, palaeontology, erosion</p>		<p>Working Scientifically:</p> <p>Research</p> <p>Comparative and fair test</p> <p>Systematic Careful observation</p> <p>Thermometer Data Gather</p> <p>Record Classify Labelled diagrams</p> <p>Keys Bar charts Tables</p> <p>Conclusion Prediction difference</p> <p>Similarities Changes evidence</p>

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- Recognise that soils are made from rocks and organic matter
- Recognise that rocks and soils can feel and look different.
- Recognise that rocks and soils can be different in different places/environments.

- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching (applying a force).
- Some materials can be found naturally; others have to be made.

- heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).
- Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
- Solids, liquids and gases can be identified by their observable properties.
- Solids have a fixed size and shape (the size and shape can be changed but it remains the same after the action).
- Liquids can pour and take the shape of the container in which they are put.
- Liquids form a pool not a pile.
- Solids in the form of powders can pour as if they were liquids but make a pile not a pool.
- Gases fill the container in which they are put.
- Gases escape from an unsealed container.

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- Gases can be made smaller by squeezing/pressure.
- Liquids and gases can flow.

Key Skills (Disciplinary)

- Suggest their own ideas on a concept and compare these with what they observe / find out.
- Use observations to suggest what to do next.
- Discuss ideas and develop descriptions from their observations using relevant scientific language and vocabulary.
- Observe and record relationships between structure and function or between different parts of a processes.
- Observe and record changes / stages over time.
- Make a simple guide to local living things.
- Use guides or simple keys to classify / identify [animals, flowering plants and non-flowering plants].
- Use their observations to identify and classify.
- Begin to give reasons for these similarities and differences.
- Record similarities as well as differences and / or changes related to simple scientific ideas or processes or more complex groups of objects / living things / events

(e.g. evaporation and condensation, different food chains, different electrical circuits).

- Ask / raise their own relevant questions with increasing confidence and independence that can be explored, observed, tested or investigated further.
- Choose / select a relevant question that can be answered [by research or experiment / test].
- Make decisions about which information to use from a wide range of sources and make decisions about how to present their research.
- Recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations.
- Make some decisions about an idea within a group *(e.g. I think we should find out by testing...)*
- Increasingly support, listen to and acknowledge others in the group.

Sequence of Lessons:

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1. LO – To compare and group together different types of rock.
2. LO – To understand how different rocks are formed.
3. LO – To investigate different properties of rocks and group them.
4. LO – To understand and explain how fossils are formed.
5. LO – To explain how soil is formed.
6. LO - To investigate and compare different types of soils.

Enhancements:
The Manchester Museum

End of Unit Outcome: Rock Museum and fossil making.
Make a rock museum and create a display of all the different types of rocks. Show another class the rock museum and explain what they have learnt about rocks.
Children will make their own fossil mould.

Oral Assessments:

- Can you compare and group together different types of rock?
- Can you explain how different rocks are formed?
- Can you explain the different properties of rocks and group them?
- Can you explain how fossils are formed?
- How is soil formed?
- Can you compare the properties of different types of soils.?