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

Pendle Class Summer 1 & 2 Year B	N.C. LINKS: **Evolution and Inheritance** Pupils should be taught to: • recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago • recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents • identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
*ETYMOLOGY – **adaption** from French word adaptation means fit, adjust, modify, fir or adjust.*	
From Cells to Ourselves By Gill Arbuthnott and Christopher Nielsen	
Key Concept: Science – Evolution and Inheritance Key Question: Why are fossils important?	
Unit Overview:	Vocabulary:

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- Recognize that things have changed over time and that fossils provide information about living things that inhabited the earth millions of years ago.
- Recognize that living things produce off spring of the same kind, but normally off spring vary and are not identical to their parents
- Identify how animals and plants are adapted to suit their environment and that adaptation may lead to evolution.

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Subject Specific:

Offspring
Inheritance
Adaption

Natural selection
Variations
Evolution

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Working Scientifically:

Plan Variables

Measurements Accuracy

Precision Repeat reading

Labels Classification

Scatter Key graphs

Predictions Bar graphs

Line graphs Patterns

Quantitative Interpret

Measurements Systematic

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New Knowledge Progression:

- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
- Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.

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Building on Prior learning when B follows A:

- 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.

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• Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	• 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.

Key Skills (Disciplinary)

- Use their developing scientific knowledge and understanding and relevant scientific language and terminology to discuss, communicate and explain their observations (incl. more abstract ideas from (e.g. friction, air resistance, forces, Earth and space, reversible and irreversible changes).
- Suggest reasons for similarities and differences.
- Compare and contrast things beyond their locality and use these similarities and differences to help to classify

(e.g. features of animals, life cycles of different living things, melting compared with dissolving, etc).

- Use secondary sources of information to identify and classify.
- Recognise scientific questions that do not yet have definitive answers.
- Independently ask their own scientific questions taking some ownership for finding out the answers.
- Find out how scientific ideas have changed / developed over time .
- Articulate and explain findings from their research using scientific knowledge and understanding.
- Make decisions about which information to use from a wide range of sources.
- Use correct scientific knowledge and understanding and relevant scientific language to discuss their observations and explorations.

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- Identify changes that have occurred over a very long period of time (evolution) and discuss how changes have impacted the world.
- Explore more abstract systems / functions / changes / behaviours and record their understanding of these *(e.g. the relationship between diet, exercise, drugs, lifestyle and health; evolutionary changes; how light travels).*
- Recognise the importance of classification to the scientific world and form a conclusion from their sorting and classifying.
- Compare and contrast more complex processes, systems, functions (e.g. sexual and asexual reproduction).
- Construct a classification key / branching database using more than two items.
- Compare and contrast things beyond their locality and discuss advantages / disadvantages, pros / cons of the similarities and differences.
- Use classification systems, keys and other information records [databases] to help classify or identify things.
- Recognise scientific questions that do not yet have definitive answers.
- Research how scientific ideas have developed over time and had an impact on our lives.
- Use evidence from a variety of sources to justify their ideas
- Recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact.

Sequence of Lessons:

1. To explain what is meant by inheritance.
2. To explain what is meant by adaption.
3. To understand the key theories of evolution.
4. To identify evidence for evolution using fossils.
5. To understand how human beings have evolved.

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6. To understand the advantages and disadvantages of adaptions.

Enhancements:	End of Unit Outcome:
National Science and History Museums – online shows linked to fossils. Fossil hunting.	Debate linked to the advantages and disadvantages of adaptions.

Oral Assessments:

What is meant by inheritance?
What is meant by adaption?
Can you explain the key theories of evolution?
How is evidence for evolution found using fossils?
How have human beings evolved?
What are the advantages and disadvantages of adaptions?