LIVING THINGS AND THEIR HABITATS - YEAR 6: PROGRESSION MAP

National Curriculum Objectives

- **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**

Lesson Titles:

Lesson 1 What is variation?
Lesson 2 Why do adaptations matter?
Lesson 3 What are some animal adaptations?
Lesson 4 How do plants adapt?
Lesson 5 What can fossils reveal?
Lesson 6 Who was Carl Linnaeus?

Coherence:

History Link: Studying the history of scientists like Darwin allows students to better grasp the origins of the field of evolutionary biology.

Geography Link: Studying plants and animals adapted to environments like deserts, rainforests or the Arctic connects to geography learning about different climate and habitat zones around the planet.

Maths Link: Drawing tables and charts to record and compare measurements of variation within a species - e.g. wingspans of bird samples from the same population. Analysing the distributions.

Literacy Link:
Write explanatory texts on adaptations or fossil evidence discoveries.

Art Link: Observing fossil shapes, beak variations and other adaptations.

Common misconceptions:

- Evolution is “just a theory” and therefore not a fact.
- Traits acquired during an organism’s lifetime can be passed on to its offspring.
- Unused characteristics are lost.
- Evolution has a goal and is not a natural process.
- All traits are adaptations.

Hinterland:

- Knowledge of various extreme environments like the Arctic, deserts, and saline waters to fully grasp the animal and plant adaptations to those habitats.
- Noticing family resemblances in features and behaviour
- Recognising that they are similar to but not identical to siblings.
- Learning about famous explorers of nature - Scientists like Darwin sailed to new places and saw how animals change to suit their homes, giving them clues about evolution.
- Observing that breeds of certain pets (like dogs) have specific characteristics will make them understand that there is variation within species.

Scientific enquiry:

Lesson 1 - Identifying, classifying and grouping
Lesson 2 - Identifying, classifying and grouping
Lesson 3 - Observing over time
Lesson 4 - Identifying, classifying and grouping
Lesson 5 - Identifying, classifying and grouping
Lesson 6 - Identifying, classifying and grouping

Key scientists and inventors:

1. Charles Darwin
2. Alfred Russel Wallace
3. Mary Anning.

Key vocabulary:

variation, genes, offspring, species, reproduction, adaptation, natural selection, adaptations, camouflage, amber, fossils, Evolution, Mary Anning, Charles Darwin, Alfred Wallace

Book Recommendations:

The Story OF Life: A First Book On Evolution
Amazing Evolution: The Journey Of Life

Builds on:

Year 6:

- Basic characteristics and needs of living things (Year 2)
- Life cycles of various organisms (Year 4)
- Introduction to adaptation and survival (Year 4)
- Reproduction (Year 5)
- Classification of organisms (Year 5)
- Simple inheritance patterns (Year 5)

Future learning at KS3:

- **Year 7:** Comparative Anatomy Studies - Comparing skeletal and other body systems
- **Year 8:** Local Ecosystem Studies - Surveying plant/animal diversity in school grounds or local area.
- **Year 9:** Genetics and Inheritance, DNA