Year 3/4 Science: Living Things and Their Habitats

National Curriculum Objectives

- Recognise that living things can be grouped in a number of ways.
- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.
- Recognise that environments can change and that this can sometimes pose dangers to living things.

Key Questions and Information

Why was Carl Linnaeus so important? 	• Born in Sweden 23rd May 1707 • He was 9 when his father first sent him to school. • By the age of 7, Carl had studied most of the main books about flowers and plants. • His family wanted him to study priesthood, but he decided to study medicine instead and he entered the University where he started to study medicine and he started to collect and study plants. • In 1720 Linnaeus wrote a book about reproduction in plants and he was asked to give lectures at the University • Carl began to think about the classification system of plants and decided to create his own system. • In May 1732, Linnaeus travelled to Lapland where he hoped to find new species of plants and animals. He discovered 100 unidentified species of plants. • When he returned, he wrote more books and was invited to other countries to tel them about his system. • He married Sara Elisabeth Moroea and moved to Stockholm to work as a doctor and support his family. • He taught botany and sent his students around the world to collect samples for his work. • He bought a farm in the countryside and grew plants in his garden. • As a result of his contribution to science, Swedish King, Adolf Frederick, honoured Linnaeus and he became known as Carl Von Linne. • He died 10th January 1778.	
Why are keys useful?	A key is a set of questions about the characteristics of living things. You can use a key to identify a living thing or decide which group it belongs to by answering the questions.	
What is the difference between vertebrate and invertebrate?	**Vertebrate**: An animal of a large group distinguished by the possession of a backbone or spinal column, including mammals, birds, reptiles, amphibians, and fishes.	**Invertebrate:** An animal lacking a backbone, such as an arthropod or mollusc.
How can you group vertebrates?	Invertebrates can be grouped into five classes: molluscs (snails and slugs), annelids (worms), arachnids (spiders), crustaceans (crabs and lobsters) and insects.	
How can you classify plants?	Plants can be grouped into flowering plants and non-flowering plants	
What kind of habitats do living things like?	Different animals and plants live in environments suited to their strengths. Environments can change and this can have an impact on the life in the habitat.	

Key Vocabulary

Classification	The grouping together of similar species of plant, animal and other organisms
Key	A **classification key** is a series of questions about the organism's physical characteristics. The answers will either branch off to another question or will identify your unknown organism.
Amphibian	**Amphibians** are small vertebrates that need water, or a moist environment, to survive. The species in this group include frogs, toads, salamanders, and newts. All can breathe and absorb water through their very thin skin. **Amphibians** also have special skin glands that produce useful proteins.
Mammal	A warm-blooded vertebrate animal of a class that is distinguished by the possession of hair or fur, females that secrete milk for the nourishment of the young, and (typically) the birth of live young.
Reptile	A cold-blooded animal (as a snake, lizard, turtle, or alligator) that breathes air and usually has the skin covered with scales or bony plates.
Invertebrate	Invertebrates are animals that don't have a backbone. Some have soft bodies, like worms, slugs and jellyfish. Other **invertebrates**, like insects, spiders and crustaceans, have a hard outer casing called an exoskeleton. This protects their body a bit like a suit of armour. Vertebrates have a backbone inside their body.
Vertebrate	**Vertebrates** are animals that have a backbone or spinal column, also called **vertebrae**. These animals include fish, birds, mammals, amphibians, and reptiles.