

Science Subject Knowledge Organiser

Autumn Term Year 1

Stands covered: Habitats, the changing world and materials

What Prior Knowledge should students have?

- Animals eat different types of food
- Weather changes over the year
- Basic concept of sight, sound and smell

Key Vocabulary	Definition
Amphibian	cold-blooded vertebrate animal, that lives in water or on land but must return to the water to reproduce
Animals	a living organism that eats food for nutrition
Bird	warm-blooded animal that has feathers and lays eggs with hard shells
Carnivore	an animal that only eats other animals (meat)
Fish	an aquatic cold-blooded animal which has gills and fins
Herbivore	an animal that only eats plants
Mammal	warm-blooded animal that is covered in hair or fur. The female gives birth to live young and feeds her babies on milk from her own body.
Omnivore	an animal that eats both meat and plants
Reptile	a cold-blooded animal which has dry, scaly skin and lays eggs on land

What Skills will students learn (Disciplinary Knowledge)

- Grouping and classifying
- Using secondary sources of information to answer questions
- Making careful observations, gathering and recording data to help them to answer questions
- Communicating outcomes enquiries in different ways, including orally, through physical movement and role play, by creating clay models, producing drawings and simple sentence writing
- Observing changes over time and noticing patterns
- Carry out a variety of comparative tests
- Organise data using tables and tally charts as appropriate and look for simple patterns

What key knowledge will be taught (Substantive Knowledge)

- A variety of familiar and less familiar animals, including fish, amphibians, reptiles, birds and mammals.
- Identify and name, look closely at and compare and contrast many different animals.
- Name their body parts, describe their physical features and mimic how they move.
- Introduced to the terms 'carnivore', 'herbivore' and 'omnivore'.
- Identify and name simple parts of the body.
- Introduced to the concept of five senses.
- Observe the effects that changing seasons and weather have on the world around them.

Common Misconceptions

- This module focuses on animals that have backbones (vertebrates). It is likely that some
 children will give examples of animals without backbones (invertebrates), such as worms,
 insects and spiders. It is important to reinforce the idea that they are all animals too and
 that they can be put into different groups using particular characteristics.
- An animal is classed as a living organism that eats food for nutrition humans are animals.
- Children may have few misconceptions at this stage about the human body and the senses, but they commonly think that in order to see, 'rays' are sent out onto the object from their eyes.