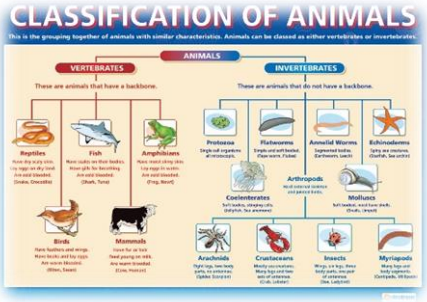
St James' Church of England Primary School
Science Overview Sheet

Year 6 – Living Things and Classification



Rationale: Pupils should build on their learning about grouping living things in Year 4 by looking at the classification system in more detail. They should be introduced to the idea that broad groupings, such as micro-organisms, plants and animals can be subdivided. Through direct observations where possible, they should classify animals into commonly found invertebrates (e.g. insects, spiders, snails, worms) and vertebrates (fish, amphibians, reptiles, birds and mammals). They should discuss reasons why living things are placed in one group and not another. Pupils might find out about the significance of the work of scientists such as Carl Linnaeus, a pioneer of classification.

Pre-unit task: Knowledge Organiser Quizzes

Working Scientifically:

- Using classification systems and keys to identify some animals and plants in the immediate environment.
- Researching unfamiliar animals and plants from a broad range of other habitats and decide where they belong in the classification system.

Statutory Requirements:

- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.

- Give reasons for classifying plants and animals based on specific characteristics.

- Living things can be grouped into micro-organisms, plants and animals.
- Vertebrates can be grouped as fish, amphibians, reptiles, birds and mammals.
- Invertebrates can be grouped as snails and slugs, worms, spiders and insects.
- Plants can be grouped as flowering plants (incl. trees and grasses) and non-flowering plants (such as ferns and mosses).

Overview:

Lesson 1: Classifying Conundrums - I can give reasons for classifying animals based on their similarities and differences.
Lesson 2: Linnaean System - I can describe how living things are classified into groups.
Lesson 3: Curious Creatures - I can identify the characteristics of different types of animals.
Lesson 4: Microorganisms - I can describe and investigate helpful and harmful microorganisms.
Lesson 5: Microorganisms - I can identify the characteristics of different types of microorganisms.
Lesson 6: Field Guide - I can classify organisms found in my local habitat.

Cross Curricular Links

Resources

• Books about classification, or access to the Internet • Adult support as required • 2 slices of bread per child (choose bread with less preservatives for quicker results) • 2 clear sealable plastic bags per child • Access to locations with different conditions • Access to the hall or a large space if required • Mould investigation equipment from last lesson • Mould Investigation Activity Sheets from last lesson • Playdough in different colours • Petri dish per child • Access to the habitat around school • Additional adults to supervise children exploring the habitat, as required

Notes and Guidance

Most Children will: • Give reasons for the classification of animals, using examples as a guide. • Classify living things using the Linnaean system. • Match groups of animals to their characteristics. • Classify creatures based on their characteristics. • Design a creature that has a specific set of characteristics, using prompts. • Describe the useful and harmful effects of different microorganisms.

Less Able Children will: • Sort and group animals based on their features, using examples as a guide. • Describe Carl Linnaeus and his development of his classification system. • Place animals into given groups based on certain characteristics. • Design a creature with a specific set of characteristics, using prompts and a word grid. • Name types of microorganism.

More Able Children will: • Explain how living things are classified at each level of the Linnaean system. • Design a creatures that has a specific set of characteristics. • Explain their predictions and conclusions in an investigation into harmful microorganisms. • Describe and compare the structure of the cells of different organisms. • Describe the characteristics of groups of organisms