

## Maple Tree Primary School

### Year 6: Classification

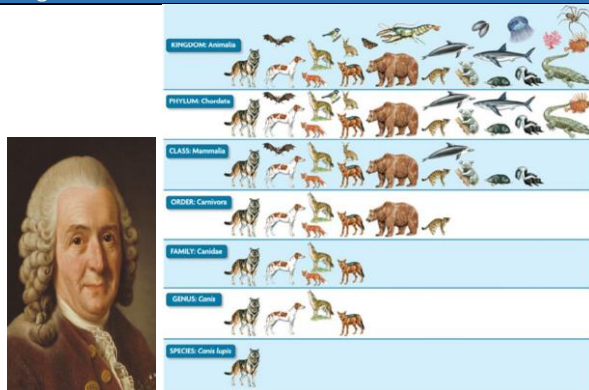
#### What should I already know?

- That living things can be grouped in a variety of ways – mammals, amphibians, reptiles, fish, birds, invertebrates
- That classification keys help group, identify and name a variety of living things in their local and wider environment
- That environments can change and that this can sometimes pose dangers to living things

#### Knowledge and skills

- To know who Linnaeus was and learn about his classification system
- To explore classification systems, understanding that they group according to similarities & differences
- To identify similarities and differences between living things in order to determine their classification
- To use classification keys to sort living things according to observable characteristics
- To develop classification keys
- To test out classification key, identifying potential flaws
- To describe the key characteristics of unusual living things from around the world
- To use descriptions of features, and online research, to attempt to classify unusual living things
- To design, describe and name a new creature that characteristically sits within the Animalia classification
- To sort 'new' creatures within the Animalia taxonomy
- To sketch a detailed creature based on known characteristics and imagination

#### Diagrams



Vocabulary	
Bacteria	Single celled micro-organisms.
Carl Linnaeus	A Swedish naturalist. He created two scientific systems: the system for classifying plants and animals and the system for naming all living things. <b>Linnaeus</b> is also called the Father of Systematic Botany.
Characteristics	The distinguishing features or quality of something.
Class	The various phyla are divided into classes – Phylum Chordata is divided into the classes: amphibians, birds, mammals, reptiles and fish.
Classification	The grouping together of similar species of plant, animal and other organisms.
Domain	A domain refers to the largest of all groups in the classification of life.
Family	The family is a relatively new scientific concept. It is a way scientists group similar genera together. This is not the 'mum, dad, brother and sister' type of family!
Genus	Two or more species that share unique body structures or other characteristics are considered to be closely related and are placed together in a genus. Sometimes a genus might include only a single species if there is nothing else in the world that has similarities with it. The genus is the first part of the scientific name of a species. The genus is always spelled with a capital letter and in italics.
Hierarchy	How important and powerful each organism is.
Kingdom	Most scientists now list 5 kingdoms – Animal, Plant, Protists (amoebas and such), Fungi and Monera (bacteria).
Micro-Organism	A <b>microorganism</b> or <b>microbe</b> is an organism that is incredibly small. Usually, they cannot be seen by the naked eye. <b>Microorganisms</b> are often single-celled or unicellular organisms.
Order	Scientific groupings don't follow hard and fast rules. Once we get to the 'order' of a living thing, there sometimes begins to be some disagreement about where it belongs. You may find that different sources group creatures in different orders or families. And you may find that a creature has its order or family changed as more information is learned.
Organism	Any living thing.
Phylum	There are more than 30 phyla in the Animal Kingdom and 9 or 10 in the Plant Kingdom. Phylum Chordata is the one we're most familiar with – it includes humans, birds, fish, and all other vertebrates (animals with a backbone). Phylum Arthropoda includes insects, spiders, lobsters, etc. Arthropods have segmented bodies with the segments grouped into two or three distinct sections. They have hard external skeletons, or exoskeletons, that are shed and regenerated as the animals grow.
Species	A species can be defined as a group of individuals that breed together to produce fertile offspring. Individuals of a species cannot breed with other such groups. It is sometimes possible for different species to breed, but the offspring will be sterile. A mule is the sterile offspring of a donkey and a horse, and the mule can never mate and reproduce itself. The species is the second part of the scientific name of a species. The species is always spelled with a lower-case letter and in italics.
Taxonomist	A scientist who classifies living things into categories