

St Leo's and Southmead Catholic Nursery and Primary School



# Science Knowledge Organiser

Spring Term Amazing Activities

Create an interactive classification display and show other classess how to use it.

#### Curriculum Links

Art - Improve mastery of drawing using pencils

# Key Vocabulary

Classification - a system used by scientists to describe organisms, or living things
Opinion - What somebody thinks
Similarities - things which are similar
Differences - things that are not the same
Refute - prove a statement to be wrong
Micro-organism - A microscopic
organism, especially a bacterium, virus, or fungus

**Taxonomy** - The part of science focused on classification

Figure 1: A general classification for the animal kingdom	
KINGDOM	<ul> <li>Kingdom is the highest level on the biological classification scale.</li> <li>All living creatures are classed as part of the Animalia Kingdom.</li> </ul>
PHYLUM	<ul> <li>Phylum splits animals by major characteristics.</li> <li>Fish (and other vertebrates) are in the Chordata Phylum.</li> </ul>
CLASS	Fish are divided into Chondrichthyes (cartilaginous fish) and Osteichthyes (bony fish).
ORDER	Order further differentiates by physical characteristics.
FAMILY	Family groups members by further physical characteristics.     There are over 50 members of the Gadidae ("cod") family, for example, which share features such as all having three dorsal fins.
GENUS	<ul> <li>Genus further differentiates members within a family.</li> <li>Within the Gadidae family, the four members of the Gadus genus are Pacific cod, Atlantic cod, Greenland cod, and Alaska pollock.</li> </ul>
SPECIES	Species is the final level and pinpoints the exact creature.     For example, Pacific cod's species name is Gadus macrocephalus.
dapted from: britishseafishing.co.uk/fish-species-classification	

Living things and their habitats

## Key Concepts

Carl Linnaeus is famous for his work in Taxonomy: the science of identifying, naming and classifying organisms. Living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants & animals

These broad groups can then be further subdivided.

#### Features to distinguish Features to distinguish between animals between plants Invertebrate or vertebrate · Flowering or non-flowering Mammal/reptile/fish/amphi Grass/cereal/garden bian/bird shrub/deciduous/algae/conif Colour er/fern Colour Number of legs Number of body segments · Height Distinguishing features Number of flowers Habitat · Fruit bearing or not · Distinguishing features Usual location

### Skills

- planning different types of scientific enquiries to answer questions including recognising and controlling variables where necessary
- recording results of increasing complexity using scientific diagrams & labels, & classification keys
- reporting and presenting findings from enquiries, including conclusions, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations

