



Key Vocabulary

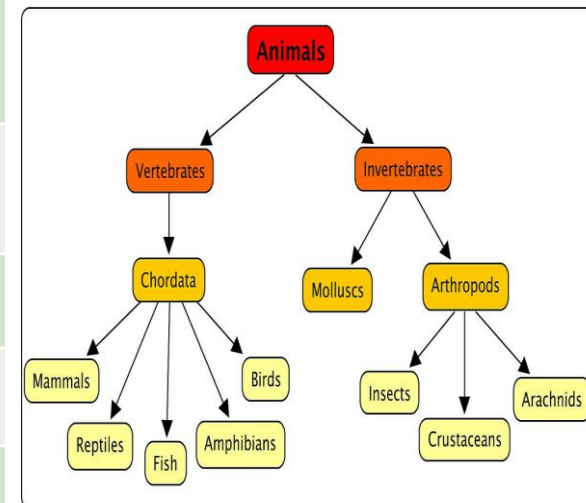
1	characteristics	Special qualities or appearances that make an individual or group of things different to others.
2	classify	To sort things into different groups.
3	taxonomist	A scientist who classifies different living things into categories.
4	Fungus	Spore-producing organisms that feed on organic matter.
5	Carl Linnaeus	In 1735, Swedish Scientist Carl Linnaeus first published a system for classifying all living things. An adapted version of this system is still used today: The Linnaeus System.
6	bacteria	A single-celled microorganism.
7	Organism	An individual animal, plant or single life form.
8	microorganism	An organism that can only be seen using a microscope, e.g. bacteria, mould and yeast.
9	microscope	A piece of equipment that is used to view very tiny (microscopic) things by magnifying their appearance.
10	Microbes	A microorganism that could cause disease or fermentation.
11	species	A group of animals that can reproduce to produce fertile offspring.
12	Amphibian	A cold-blooded vertebrate animal that compromises frogs, toads, newts, salamanders and caecilians.
13	Arachnid	An animal that has eight legs and a body formed of two parts
14	Crustaceans	Mostly live in water with a hard shell and segmented body
15	Mollusc	An invertebrate which usually carry a shell .

Sticky Knowledge

1	A key is used to identify a living thing or decide which group it belongs to by answering 'yes' or 'no' questions.
2	Living things can be classified by these eight levels. The number of living things in each level gets smaller until the one animal is left in its species level. (see picture box for the order of classification)
3	Over 275,000 species All plants are included in one Kingdom (Plantae) which is then broken down into smaller and smaller divisions based on several characteristics.
4	Scientists believe that there could be as many as 10 million different species on Earth!
5	Carolus Linnaeus is the father of taxonomy, which is the system of classifying and naming organisms. One of his contributions was the development of a hierarchical system of classification of nature. This system includes eight taxa: domain, kingdom, phylum, class, order, family, genus, and species.
6	Scientists sort and group living things according to their similarities and differences.
7	Nobody knows how many species of insects exist; estimate range from a few million to over 30 million. At least 800,000 different species have been described and named formally.
8	There are only five living species of monotreme, or egg-laying, mammal: the platypus, and four types of spiny anteater. All other mammals are "therians" and have live birth.
9	There are Six Kingdoms: Plants, Animals, Protists (slime moulds and algae), Fungi, Archaeobacteria (one cell organisms), Eubacteria.
10	Without plants, life on Earth would not exist! Plants feed almost all the heterotrophs (organisms that eat other organisms) on Earth.
11	Most eubacteria are helpful. Some produce vitamins and foods like yogurt.
12	fungi cannot make their own food. Most obtain their food from parts of plants that are decaying in the soil.

Key Questions

1	How can organisms be grouped according to their characteristics?
2	What are the characteristics for the different classification of animals?
3	What appropriate scientific vocabulary can you use to describe organisms and their features?
4	What are vascular and non-vascular plants?
5	Explain the difference between flowering and non-flowering plants.
6	Who was Carl Linnaeus and what did he contribute to science? Why are his classification systems so important?
7	What are micro-organisms? What groups can you classify micro-organisms into?
8	What groups can you classify micro-organisms into?
9	What organisms can you find in your local environment?



Prior Vocabulary

1	Deforestation	The action of clearing a wide area of trees.
2	Pollution	The presence of a harmful or poisonous substance in the environment.
3	Asexual	Organisms that reproduce with no fusion of gametes.
4	Fertilisation	The fusion of the male and female reproductive systems.
5	Gestation	The period of developing inside a womb.
6	key	key is a series of questions about the characteristics of living things.
7	Bird	A warm-blooded egg-laying vertebrate animal distinguished by the possession of feathers, wings, a beak and typically able to fly
8	Insect	A small animal that has six legs and generally one or two pairs of wings
9	Mammal	A warm-blooded vertebrate animal distinguishable by the possession of hair or fur, females secreting milk for young and typically giving birth to live young
10	Reptile	A vertebrate animal that has dry scaly skin and typically lay soft-shelled eggs on land
11	Habitat	The natural home or environment of an animal, plant or other organism
12	Invertebrate	An animal lacking a backbone.
13	Vertebrate	An animal with a backbone/spinal column.
14	Carnivore	An animal that feeds on other animals.
15	Herbivore	An animal that feeds on plants.
16	Omnivore	An animal that feeds on both animals and plants.

Prior Knowledge

1	Habitats change over time, either due to natural or human influences.
2	These environments may change naturally e.g. through flooding, fire, earthquakes etc. Humans also cause the environment to change. This can be in a good way (i.e. positive human impact, such as setting up nature reserves) or in a bad way (i.e. negative human impact, such as littering). These environments also change with the seasons; different living things can be found in a habitat at different times of the year.
3	Fossils form over millions of years and are the remains of a once living organism, preserved as rock.
4	Fossils form when a living thing dies in a watery environment. The body gets covered by mud and sand and the soft tissues rot away. Over time, the ground hardens to form sedimentary rock and the skeletal or shell remains turn to rock.
5	Classification keys can be used to identify and name living things.
6	Food chains are constructed to identify producers, predators and prey.
7	Sexual reproduction occurs through pollination, usually involving wind or insects.
8	Most animals reproduce sexually. This involves two parents where the sperm from the male fertilises the female egg.
9	Mammals give birth to live young, birds lay eggs, amphibians lay eggs and young go through a metamorphism to become adults, insects lay eggs which turn to pupa and grow into adults.
10	In other animals, such as chickens or snakes, there may be eggs laid that hatch to young which then grow to adults.

Future Learning

	In Year 7, you will move on to studying biology as a separate science! You will be exploring:
1	Different animal and plant species and their differences
2	Gene pools and the range of animal and plant DNA
3	Biodiversity between different habitats

Characteristics	Example	Kingdom	Domain
Bacteria are simple unicellular organisms.		Bacteria	Bacteria
Archaea are simple unicellular organisms that often live in extreme environments.		Archaea	Archaea
Protists are unicellular and are more complex than bacteria or archaea.		Protista	Eukarya
Fungi are unicellular or multicellular and absorb food.		Fungi	
Plants are multicellular and make their own food.		Plantae	
Animals are multicellular and take in their food.		Animalia	