

### Key Concepts

#### What classifies as a living thing?

- A living thing needs to demonstrate the 7 life processes to be classified as living.
- M** – All living things move. All animals move around to get from place to place. Plants grow and turn towards the light.
- R** – All living things respire. Plants and animals use the oxygen in the air to turn the food they eat into energy.
- S** – All living things are sensitive. Every living thing can detect changes in their surroundings.
- N** – All living things need nutrition. Food is eaten provide energy to live. Green plants make their own food using sunlight.
- E** – All living things excrete. Waste products are removed from the body. Both plants and animals have to get rid of excess gas and water.
- R** – All living things reproduce. Animals have young and plants produce seeds from which more plants grow.
- G** – All living things grow. Animals grow from babies to adults. Seeds grow into plants.



#### Taxonomy

- Taxonomy is the science of naming, describing and classifying living things.
- Living things are classified on their characteristics and put into specific kingdoms.
- These kingdoms are then further sorted based on specific characteristics until you are left with one species.
- The Linnaean system, named after Carl Linnaeus, has different levels where the number of living things in each group gets smaller and smaller, until there will just be one type of animal in the species group.



#### Characteristics of Mammals

- Warm blooded
- Offspring are born alive
- Hair or fur on body
- Vertebrate
- Breathe through lungs
- Offspring are fed on milk

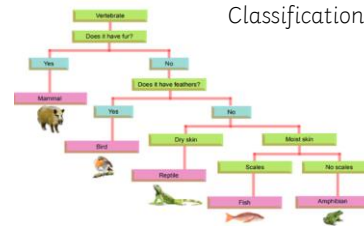


#### Characteristics of Reptiles

- Cold blooded
- Offspring are laid in eggs
- Dry skin or scales
- Vertebrate
- Breathe through lungs



#### Classification Key



#### Characteristics of Birds

- Warm blooded
- Offspring are laid in eggs
- Have wings and feathers
- Vertebrate
- Breathe through lungs



#### Characteristics of Amphibians

- Warm blooded
- Offspring are laid in eggs
- Have wings and feathers
- Vertebrate
- Live in water and on land



#### Characteristics of Fish

- Cold blooded
- Breathe through gills
- Fins
- Lay eggs
- Vertebrate



#### Characteristics of Insects




- Invertebrate
- 1 or 2 pairs of wings
- 3 part body
- 3 pairs of joined legs



### Key Vocabulary

bacteria	bacteria are single celled microbes.
characteristics	the qualities or features that belong to them and make them recognisable
classification key	a system which divides things into groups or types
criteria	a factor on which something is judged
excretion	is the life process of removing waste from the body
fungi	Fungi are a group of living organisms which are classified in their own kingdom. Unlike bacteria, fungi have complex cells like animals and plants.
kingdom	kingdom is a taxonomic rank that is composed of smaller groups
microorganism	a very small living thing which you can only see if you use a microscope
MRS NERG	the acronym used to remember the 7 life processes
organism	a living thing
respiration	is the life process of breathing
sensitivity	Is the life process of sensing changes in their habitat e.g. a plant detecting sunlight.
species	a class of plants or animals whose members have the same main characteristics and are able to breed with each other
taxonomy	Taxonomy is the science of naming, describing and classifying organisms and includes all plants, animals and microorganisms of the world.

### Working Scientifically Skills

??	Using Scientific knowledge to ask questions.		Using scientific language to draw conclusions.
	Recognising when to use other sources to answer questions and separating opinion from fact.		Using and developing keys to identify and classify living things and materials

### Famous Scientists



Carl Linnaeus (1707-1778) was a Swedish naturalist who became known as the father of taxonomy. Linnaeus introduced a new system for classifying the natural world which is still used today.