Kingsley CP Knowledge Organiser

Science focus	Living Things and Their Habitats	Year 6	Autumn Term

Key Knowledge

Key scientists

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. Living things can be classified by eight levels. The number of living things in each level gets smaller until the one animal is left in its species level.

Scientific theories

Hoe can we sort animals?	Wings/ no wings; how many legs; come from eggs/ don't come from eggs; insects/ not insect; type of animal (e.g. reptile, bird, amphibian, mammal etc); beak/ no beak
What is classification?	Scientists, called Taxonomists, sort and group living things according to their similarities and differences. They group similar things together then split the groups again and again based on their differences.
What are microorganisms?	Microorganisms are viruses, bacteria, moulds and yeast. Some animals (dust mites) and plants (phytoplankton) are also microorganisms. Microorganisms are very tiny living things that can only be seen using a microscope. They can be found in and on our bodies, in the air, in water and on objects around us.
What are helpful microbes?	Bacteria—cheese Yeast—wine Bacteria—yoghurt Yeast—bread dough Penicillium fungi - antibiotics
What are unhelpful microbes?	Bacteria - salmonella is a bacterium that can lead to food poisoning Virus - chicken pox and flu are examples of viral diseases Fungi - athlete's foot Bacteria - plaque Fungi - mould
Conditions to grow mould...	Warmth, damp, stagnant air, food or something for mould to grow on
How to prevent mould...	Refrigerate, freeze, well-sealed packaging, adding additives/ preservatives. Certain foods are more resilient to mould: smoked, tinned, dried, cured

Investigation

Give reasons why a particular invertebrate belongs to a certain group.

Key Vocabulary

characteristics	Special qualities or appearances that make an individual or group of things different to others.
classify	To sort things into different groups.
taxonomist	A scientist who classifies different living things into categories.
vertebrate	An animal with a backbone.
invertebrate	An animal without a backbone.
bacteria	A single-celled microorganism.
microorganism	An organism that can only be seen using a microscope, e.g. bacteria, mould and yeast.
Placental animal	An animal that grows its young inside the mother whilst being kept alive by a placenta..
marsupials	A mammal that does not develop a true placenta and that usually have a pouch on the abdomen of the female which covers the teats and serves to carry the young.
species	A group of animals that can reproduce to produce fertile offspring.
arachnid	They all have 8 legs, no antennae and their bodies are split into two parts.
anthropod	Invertebrate animals with an exoskeleton, a segmented body and body parts which stick out e.g. legs
mollusc	Invertebrate animals with a soft, unsegmented body, living in damp or aquatic environments. They often have a shell.
amphibian	Vertebrate animal which is cold blooded which are able, when adult, to live both in water and on land. They lay jelly covered eggs, called spawn.
reptile	Vertebrate animal who has dry scaly skin and typically lays soft-shelled eggs on land.

Diagrams and symbols