



## Year 6 Science Skills and Knowledge Organiser Classification.

Key Knowledge and Skills	Working scientifically	Key Vocabulary	Key Questions
<p>To recognise that there is a wide variety of living things</p> <p>To understand why classification is important</p> <p>To identify vertebrates and invertebrates</p> <p>To name and describe the five vertebrate groups</p> <p>To describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals</p> <p>To devise own keys to classify organisms and objects</p> <p>To give reasons for classifying plants and animals based on specific characteristics</p> <p>To describe early ideas about classification (e.g. Aristotle)</p> <p>To understand there are living things that are too small to be seen and these can affect our lives</p> <p>To recognise that there are many micro-organisms, some which can cause illness or decay</p> <p>To recognise that there are useful micro-organisms which can be used in food production</p> <p>To describe how micro-organisms feed, grow and reproduce like other organisms</p> <p>To describe evidence, from investigations, that yeast is living</p> <p>To explain how micro-organisms can move from one food source to another or from one animal to another</p>	<p>pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <p>planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>using test results to make predictions to set up</p>	<p>Micro-organism- These are tiny living creatures. Most can be seen through a microscope. They can be subdivided into smaller groups including bacteria, fungi and viruses.</p> <p>Classification –Living things can be classified into broad groups according to observable characteristics that are similar or different.</p> <p>Vertebrate – animals that have a backbone. They can be divided into 5 groups- fish, amphibians, reptiles, birds and mammals.</p> <p>Invertebrate- animals that do not have a backbone. These can be divided into several groups including insects, worms, spiders, snails.</p> <p>Amphibian- a cold-blooded vertebrate animal of a class that comprises the frogs, toads, newts, salamanders, and caecilians. They are distinguished by having an aquatic gill-breathing larval stage followed (typically) by a terrestrial lung-breathing adult stage.</p>	<p>Why is classification important?</p> <p>In which ways can we group living things based on similarities and differences?</p> <p>How are some microorganisms harmful or useful to us?</p> <p>How do microscopes help us to learn more about microorganisms?</p>



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<p>To compare the rate of reproduction in microorganisms to other animals</p> <p>To describe how the development of the microscope has contributed to our understanding of microorganisms</p> <p>To describe how ideas about hygiene have changed over time (e.g. Semmelweis)</p>	<p>further comparative and fair tests</p> <p>reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>identifying scientific evidence that has been used to support or refute ideas or arguments</p>	<p>Reptile- a cold blooded animal with dry, scaly skin which breathes with lungs and lays soft-shelled eggs on land.</p> <p>Birds- warm blooded animal that breathes with lungs, and lays eggs with hard shells. They are covered with feathers, have wings but not all fly.</p> <p>Mammals- are warm blooded animals with fur or hairy skin. They give births to live young and feed their young milk.</p>	
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