Knowledge Organiser -Science

Year 6 Autumn Term

Recap from previous years	Important vocabulary	Key facts	Pictures/diagrams
Living things and their habitats. **Evolution and Inheritance**	Organism- a living thing Invertebrates- organisms which do not have a backbone Vertebrates- animals which do have a backbone Mammals- a warm-blooded vertebrate that give birth to live young Reptiles- cold-blooded vertebrates which have dry scaly skin and typically lay soft-shelled eggs on land. Birds- a warm-blooded, egg-laying vertebrate animal distinguished by the possession of feathers, wings, a beak, and typically by being able to fly. Amphibians- a cold-blooded vertebrate animal distinguished by having an aquatic gill-breathing larval stage followed (typically) by a terrestrial lung-breathing adult stage. Fish- a limbless cold-blooded vertebrate animal with gills and fins living wholly in water. Classification- arranging/ organising organisms into groups based on similar characteristics and traits. Conditions- the state of something with regard to its appearance, quality, or working order. Offspring- a person's child or an animal's young. Adapt- become adjusted to new conditions Environment- the surroundings/ conditions where an animal/ plant lives. Adaptation- the process whereby an animal becomes better suited to their environment. Reproduce- To produce offspring Endangered- a species which is at series risk of becoming extinct. Extinct- a species which has died out and no longer exists. Fossils- the remains or impression of a prehistoric plant or animal embedded in rock. Species- a group organism that are able to produce fertile offspring Natural selection- Process where animals become better adapted to their environment to help them survive. Generation- all of the people born and living at about the same time	• An animal needs food, water, shelter and space to survive. A plant needs similar conditions but makes its own food, takes in water from the roots and needs sunlight to survive. • An animal is living because it can breathe, move, eat, grow, excrete and reproduce. A plant is living because it can move towards sunlight, make its own food, grow and reproduce. • Animals are separated into 2 main groups: vertebrates and invertebrates. • The 5 main groups of vertebrates are mammals, fish, birds, reptiles and amphibians. • Plants can be divided broadly into two main groups: flowering plants; and non-flowering plants. • A classification key can be used to identify living things by their physical or behavioural characteristics. • Carl Linnaeus was famous for developing the first system to classify animals. The classification was based on physical characteristics • Plants and animals are two main groups but there are other livings things that do not fit into these groups e.g. micro-organisms such as bacteria and yeast, and toadstools and mushrooms. • Evolution is the change in characteristics of a species over several generations and relies on the process of natural selection. • Animals are adapted to their environments to ensure survival. Adaptations become prevalent in a species through a process called "natural selection". Those animals which are most suited to living in there are more likely to survive and pass on these favourable characteristics to their offspring. This is also known as 'survival of the fittest'. • Plants and animals both adapt (change over time) to suit their environments in order to survive. • Animals go extinct when there are none of that species left in existence. • Animals are endangered when they are at risk of becoming extinct and their numbers are low.