

# Y5 Science Curriculum



| Autumn | Forces                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Earth and Space                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| Year 5 | <ul style="list-style-type: none"> <li>-To know that unsupported objects fall towards the ground due to gravity</li> <li>-To know that gravity pulls items to the ground at the same speed.</li> <li>-To know forces act in opposite directions.</li> <li>-To know that air resistance can be increased by increasing the surface area.</li> <li>-To know that friction acts on all objects. To label key parts of simple mechanisms</li> <li>-To know mechanisms allow a small force to exert a greater effect.</li> <li>-To know Sir Isaac Newton discovered gravity.</li> </ul> | <ul style="list-style-type: none"> <li>- To describe the movement of the Earth, and other planets, relative to the Sun in the solar system</li> <li>- To describe the movement of the Moon relative to the Earth</li> <li>- To describe the Sun, Earth and Moon as approximately spherical bodies</li> <li>- To use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</li> </ul> |

| Spring | Animals including Humans – Human Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Living Things and their Habitats – Life Cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| Year 5 | <ul style="list-style-type: none"> <li>● To understand humans are mammals and give birth to live young.</li> <li>● Understand the human gestation period is 9 months long.</li> <li>● Understand a foetus develops in the womb.</li> <li>● the key stages of the human life cycle: baby, toddler, adolescence, adult and old age.</li> <li>● To recognise the key milestones between 0-5 years old - walking, talking, fine motor skills.</li> <li>● To identify key physical changes of puberty - growing body hair, development of sexual organs, voice breaking and development of breasts.</li> <li>● To know that humans stop growing at the end of adolescence.</li> <li>● To identify the physical and emotional changes as humans move from adulthood into old age.</li> </ul> | <ul style="list-style-type: none"> <li>● Mammals give birth to live young, the young look similar to their parents. Female provides milk for the young.</li> <li>● Amphibians lay eggs in water, the young do not look like their parents. There is no parental care.</li> <li>● Insects lay eggs on land. Most young insects do not look like their parents. There is no parental care.</li> <li>● Birds lay eggs in a nest, their young look similar to the parents. there is parental care for the young.</li> <li>● To recognise and understand that reptiles, amphibians and amphibians young go through the process of metamorphosis.</li> <li>● Jane Goodall was a British biologist who studied chimpanzees to further understand how best to preserve the species.</li> <li>● Plants can reproduce through sexual and asexual reproduction.</li> <li>● Plant sexual reproduction is through pollination; asexual reproduction is through runners, cuttings and tubers.</li> </ul> |

| Summer | Properties and changes of Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| Year 5 | <ul style="list-style-type: none"> <li>● To understand that materials can be classified into three states of matter; solid, liquid and gas.</li> <li>● Materials are made from molecules - the arrangement of these molecules relates to the state of matter.</li> <li>● To identify objects that can be classified by hardness, transparency, opaqueness and have magnetism.</li> <li>● To understand that materials can be classified as soluble and insoluble.</li> <li>● To understand that dissolving a solid in a liquid creates a solution.</li> <li>● To recover a substance from a solution through filtration, sieve and evaporation.</li> <li>● Understand changes through use of chemicals and ignition are irreversible changes.</li> <li>● Understand materials are chosen for a purpose - plastic cases for wires as they do not conduct electricity.</li> </ul> |