



## Oakfield Primary School Science Long Term Plan

### **EYFS: Understanding the World**

Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.

Term	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn	<b>Plants</b> Knowledge of common wild and garden plants and basic structure of flowering plants/trees.  <b>Seasonal Changes</b> Knowledge of changes, weather and day length across the four seasons.	<b>Use of Everyday Materials</b> Knowledge of suitability of everyday materials for particular uses and how the shape of some solid objects can be changed.  <b>Living Things and Their Habitats</b> Knowledge of living, dead and never alive, habitats, plants and animals in their habitats and how animals obtain food.	<b>Rocks</b> Knowledge of grouping rocks by property, fossil formation and how soil is formed.  <b>Forces and magnets</b> Knowledge of how things move on difference surfaces, magnets and magnetism of materials.	<b>Sound</b> Knowledge of how sounds are made and how they travel, pitch, volume and the effect of distance of sound sources on volume.  <b>Electricity</b> Knowledge of appliances that run on electricity, series circuit and parts, circuit as a loop, effect of a switch and electrical conductors and insulators.	<b>Living Things and Their Habitats</b> Knowledge of differences in the life cycles and the life processes of reproduction.  <b>Forces</b> Knowledge of gravity, the effects of resistances and use of mechanisms effect on forces.	<b>Animals Including Humans</b> Knowledge of the circulatory system; impact of diet, exercise, drugs and lifestyle and nutrient transportation.  <b>Electricity</b> Knowledge of circuit symbols, component variation and effect of changes to power source (cells).
Spring	<b>Everyday Materials</b> Knowledge of difference between an object and its material, names of everyday materials and their properties and grouping everyday materials based on physical properties.  <b>Seasonal Changes</b> Knowledge of changes, weather and day length across the four seasons.	<b>Animals Including Humans</b> Knowledge of offspring which grow, basic needs of animals and importance of exercise, diet and hygiene for humans.	<b>Animals Including Humans</b> Knowledge of nutrition and the function of skeletons and muscles.  <b>Plants</b> Knowledge of parts of flowering plants, requirements for life, water transportation and the part of flowers in life cycle.	<b>Animals Including Humans</b> Knowledge of digestive system, teeth and food chains.	<b>Properties and Changes of Materials</b> Knowledge of comparing and grouping materials; dissolving and recovering in a solution; separating mixtures; use of materials and changes in materials: reversible/irreversible.	<b>Living Things and Their Habitats</b> Knowledge of living thing classification characteristics (including plants animals and microorganisms) and reasons for classifying based on characteristics.  <b>Light</b> Knowledge of how light travels, how light enables objects to be seen by the human eye and how it determines the shape of shadows.



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Summer	<p><b>Animals Including Humans</b> Knowledge of common animals and their structure including fish, amphibians, reptiles and mammals; common mammals: carnivore, herbivore and omnivore and parts of the human body related to senses.</p> <p><b>Plants</b> Knowledge of common wild and garden plants and basic structure of flowering plants/trees.</p> <p><b>Seasonal Changes</b> Knowledge of changes, weather and day length across the four seasons.</p>	<p><b>Plants</b> Knowledge of how seeds and bulbs grow and how plants need water, light and suitable temperature to stay healthy.</p>	<p><b>Light</b> Knowledge of need of light to see, reflection, danger of direct sunlight and how shadows are formed and change.</p>	<p><b>States of Matter</b> Knowledge of solids, liquids and gases; change of materials based on temperatures and the water cycle.</p> <p><b>Living Things and Their Habitats</b> Knowledge of ways of grouping living things, classification to group and classify and dangers of changing environments to living things.</p>	<p><b>Earth and Space</b> Knowledge of movement of planets and the moon; spherical shape of the Sun, Moon and Earth and Earth's rotation in relation to Day and Night.</p> <p><b>Animals Including Humans</b> Knowledge of the changes as humans develop to old age.</p>	<p><b>Evolution and Inheritance</b> Knowledge of change in living things over time, traits passing to offspring and how adaption to environment may lead to evolution.</p>
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