**Year 5**

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| **Biology - Animals including humans**  **Understand how humans develop to old age** |
| To know the stages of the human life cycle |
| To identify specific steps in each stage (baby -crawling, teenage – puberty) |

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| **Biology - Living Things and Their Habitats**  **Understand the Lifecycle** |
| To know the terms sexual and asexual reproduction |
| To know how plants reproduce sexually (through pollination) |
| To know how plants reproduce asexually (through bulbs, tubers, runners, plantlets) |
| To compare the life cycles of different animals (mammals, insects, birds, amphibians, reptiles) |

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| **Chemistry – Properties of materials**  **To justify materials suitability for different uses**  **To identify that changes can be reversible or irreversible** |
| To know how to group everyday materials based upon properties including their hardness, solubility, transparency, conductivity *(electrical and thermal), and response to magnets. (Electricity covered in Year 4 and magnets covered in Y3)* |
| To know that some materials will dissolve in liquid to form a solution, these are **soluble** and solids that do not dissolve are **insoluble** |
| To understand why a material is suitable or not suitable for a specific purpose based upon its physical properties |
| To understand when some materials are mixed, they can be separated by sieving, filtering, evaporating or by magnetic properties. These changes are reversible |
| To understand that when some materials are mixed a chemical reaction can create a change of state or a new material. These changes are **irreversible** e.g. burning and rusting |
| To understand that heating can sometimes cause materials to change permanently. When this happens, a new substance is made |

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| **Physics – Forces and magnets**  **To know that there are different types of forces and understand their different effects** |
| To understand that air resistance and water resistance are forces against motion caused by objects having to move air and water out of their way |
| To know that friction is a force against motion caused by two surfaces rubbing against each other |
| To understand that some objects require large forces to make them move; gears, pulley and levers can reduce the force needed to make things move |
| To know that some objects/animals are streamlined to minimise the effects of air/water resistance |

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| **Physics – Earth and space**  **To know and understand the movement of the Earth, Moon and other planets in the Solar System** |
| To know the approximate shape of the Sun, Earth and Moon – Spherical |
| To understand the movement of planets in the Solar System |
| To know how the Earth and Moon moves |
| To understand why we have day and night |
| To know the moon has different phases |