**Year 6**

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| **Biology - Animals including humans**  **Understand the importance of a healthy circulatory system** |
| To know the main parts of the circulatory system and their function (heart, blood vessels and blood) |
| To know that water and nutrients are transported in the blood |
| To understand the effect of lifestyle choices (diet, exercise, drugs) on your circulatory system |

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| **Biology - Living Things and Their Habitats**  **To classify living things based on specific and common characteristics** |
| To know that living things can be grouped into plants, animals and micro-organisms |
| To understand the terms vertebrate and invertebrates |
| To know animals can be grouped into vertebrates and invertebrates |
| To know the common characteristics of the vertebrates’ group - fish, amphibians, reptiles, birds, mammals |
| To know that invertebrates can be grouped into insects, spiders, snails and worms |
| To know plants can be grouped into flowering and non-flowering |

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| **Biology - Evolution and inheritance**  **Describe how living things have adapted and evolved over time** |
| To define the terms evolution and inheritance |
| To know that fossils provide information about living things that inhabited the Earth millions of years ago |
| To recognise that living things have adapted and evolved over time to survive within the environment |
| To understand that organisms reproduce and offspring inherit similar characteristics |
| To know that variation exists within a population and between offspring of some plants |

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| **Physics – Light**  **To understand that light travels in straight lines and to know how we see objects** |
| To understand that animals see light sources when light travels from the source into their eyes |
| To understand that animals see objects when light is reflected off that object and enters their eyes |
| To know that light reflects off all objects (unless they are black). Non-shiny surfaces scatter the light so we don’t see the beam |
| To know that light travels in straight lines, called rays or beams of light |

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| **Physics – Electricity**  **To know and understand that the amount of voltage in a circuit can affect the output of a component inc. brightness, volume and speed** |
| To know that batteries/cells are a store of energy and this energy pushes electricity around the circuit |
| To know that battery/cell energy is measured in voltage |
| To understand that when the battery’s/cell’s energy is gone it stops pushing (voltage measures the ‘push’) |
| To know the symbols for: lamp, wire, buzzer, cell, battery, motor, switch (open), switch (closed |
| To understand that a series circuit will not work if a lamp is broken or a wire is disconnected |
| To understand how to vary the output of a component e.g. bulb, buzzer, motor |