

MILLBROOK COMMUNITY PRIMARY SCHOOL - SCIENCE - KNOWLEDGE PROGRESSION

| | Autumn Term | Spring Term | Summer Term |
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| CEDAR WILLOW | <p>BIOLOGY</p> <p>Animals including Humans (human focus)</p> <p>identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p> | <p>CHEMISTRY</p> <p>Child Led</p> | <p>BIOLOGY</p> <p>Plants</p> <ul style="list-style-type: none"> ➤ Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees ➤ Identify and describe the basic structure of a variety of common flowering plants, including trees. |
| | <p>BIOLOGY</p> <p>Animals including Humans (animal focus)</p> <ul style="list-style-type: none"> ➤ identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals ➤ identify and name a variety of common animals that are carnivores, herbivores and omnivores ➤ describe and compare the structure of a variety of common animals | <p>CHEMISTRY</p> <p>Everyday Materials</p> <ul style="list-style-type: none"> ➤ distinguish between an object and the material from which it is made ➤ identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock ➤ describe the simple physical properties of a variety of everyday materials ➤ compare and group together a variety of everyday materials on the basis of their simple physical properties. | <p>PHYSICS</p> <p>Seasonal Changes</p> <ul style="list-style-type: none"> ➤ observe changes across the four seasons ➤ observe and describe weather associated with the seasons and how day length varies. |

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| | (fish, amphibians, reptiles, birds and mammals, including pets) | | |
| <u>CHERRY</u> | <p>BIOLOGY</p> <p>Animals including Humans</p> <ul style="list-style-type: none"> ➤ notice that animals, including humans, have offspring which grow into adults ➤ find out about and describe the basic needs of animals, including humans, for survival (water, food and air) <p>describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</p> | <p>CHEMISTRY</p> <p>Child Led</p> | <p>BIOLOGY</p> <p>Plants</p> <ul style="list-style-type: none"> ➤ observe and describe how seeds and bulbs grow into mature plants ➤ find out and describe how plants need water, light and a suitable temperature to grow and stay healthy |
| | <p>BIOLOGY</p> <p>Living things and their habitats</p> <ul style="list-style-type: none"> ➤ explore and compare the differences between things that are living, dead, and things that have never been alive ➤ identify that most living things live in habitats to which they are suited and describe how different habitats | <p>CHEMISTRY</p> <p>Uses of Everyday Materials</p> <ul style="list-style-type: none"> ➤ identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses ➤ find out how the shapes of solid objects made from some materials | <p>PHYSICS</p> <p>Child Led</p> |

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| | <p>provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <ul style="list-style-type: none"> ➤ identify and name a variety of plants and animals in their habitats, including micro-habitats ➤ describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. | <p>can be changed by squashing, bending, twisting and stretching</p> | |
| <p>MAPLE HOLLY HAZEL</p> | <p>BIOLOGY</p> <p>Animals including Humans</p> <ul style="list-style-type: none"> ➤ describe the simple functions of the basic parts of the digestive system in humans ➤ identify the different types of teeth in humans and their simple functions ➤ construct and interpret a variety of food chains, identifying producers, predators and prey | <p>CHEMISTRY</p> <p>Child Led</p> | <p>CHEMISTRY</p> <p>Child Led</p> |
| | <p>PHYSICS</p> <p>Light</p> | <p>PHYSICS</p> <p>Forces and Magnets</p> | <p>PHYSICS</p> <p>Sound</p> |

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| | <ul style="list-style-type: none"> ➤ recognise that they need light in order to see things and that dark is the absence of light ➤ notice that light is reflected from surfaces ➤ recognise that light from the sun can be dangerous and that there are ways to protect their eyes ➤ recognise that shadows are formed when the light from a light source is blocked by an opaque object ➤ find patterns in the way that the size of shadows change | <ul style="list-style-type: none"> ➤ compare how things move on different surfaces ➤ notice that some forces need contact between 2 objects, but magnetic forces can act at a distance ➤ observe how magnets attract or repel each other and attract some materials and not others ➤ compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials ➤ describe magnets as having 2 poles ➤ predict whether 2 magnets will attract or repel each other, depending on which poles are facing | <ul style="list-style-type: none"> ➤ identify how sounds are made, associating some of them with something vibrating ➤ recognise that vibrations from sounds travel through a medium to the ear ➤ find patterns between the pitch of a sound and features of the object that produced it ➤ find patterns between the volume of a sound and the strength of the vibrations that produced it ➤ recognise that sounds get fainter as the distance from the sound source increases |
| <p>CHESTNUT SYCAMORE</p> | <p style="text-align: center; background-color: #90EE90;">BIOLOGY</p> <p style="text-align: center;">Animals including Humans</p> <ul style="list-style-type: none"> ➤ identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood ➤ recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function | <p style="text-align: center; background-color: #FFFF00;">CHEMISTRY</p> <p style="text-align: center;">Properties and Changes of materials</p> <ul style="list-style-type: none"> ➤ compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets ➤ know that some materials will dissolve in liquid to form a solution, | <p style="text-align: center; background-color: #90EE90;">BIOLOGY</p> <p style="text-align: center;">Evolution and Inheritance</p> <ul style="list-style-type: none"> ➤ recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago ➤ recognise that living things produce offspring of the same kind, but normally offspring |

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| | <p>describe the ways in which nutrients and water are transported within animals, including humans</p> | <p>and describe how to recover a substance from a solution</p> <ul style="list-style-type: none"> ➤ use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating ➤ give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic ➤ demonstrate that dissolving, mixing and changes of state are reversible changes ➤ explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda | <p>vary and are not identical to their parents</p> <p>identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</p> |
| | <p style="text-align: center;">PHYSICS</p> <p style="text-align: center;">Light</p> <ul style="list-style-type: none"> ➤ recognise that light appears to travel in straight lines ➤ use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye | <p style="text-align: center;">PHYSICS</p> <p style="text-align: center;">Forces</p> <ul style="list-style-type: none"> ➤ explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object | <p style="text-align: center;">BIOLOGY</p> <p style="text-align: center;">Living things and their habitats</p> <ul style="list-style-type: none"> ➤ describe how living things are classified into broad groups according to common observable characteristics and based on similarities and |

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| | <ul style="list-style-type: none">➤ explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyesuse the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them | <ul style="list-style-type: none">➤ identify the effects of air resistance, water resistance and friction, that act between moving surfaces➤ recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect | <p>differences, including micro-organisms, plants and animals</p> <p>give reasons for classifying plants and animals based on specific characteristics</p> |
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