Weston Rhyn
EST Primary School 1926

**Science Curriculum Overview**
**Year C**

| C | Nursey | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| **Autumn** | Children in Nursery begin to explore and make sense of the world around them through hands-on experiences, play and investigation. They are encouraged to:<br>Explore natural materials, plants, animals and seasonal changes.<br>Notice similarities, differences and patterns in the world around them.<br>Ask questions about how things work and why things happen.<br>Use their senses to investigate objects and materials.<br>Observe changes over time, such as growing plants or melting ice.<br>Develop curiosity and a love of discovery through exploration and experimentation. | The Natural World By the end of Reception, children should be able to:<br><br>Explore the natural world around them and make observations.<br>Describe what they see, hear and feel while outdoors.<br>Recognise some similarities and differences between the natural world and contrasting environments.<br>Understand some important processes and changes in the natural world, including seasons and life cycles. | **Animals Including Humans**<br>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals<br>Identify and name a variety of common animals that are carnivores, herbivores and omnivores<br>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)<br>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense<br><br>**Materials**<br>Distinguish between an object and the material from which it is made<br>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock<br>Describe the simple physical properties of a variety of everyday materials<br>Compare and group together a variety of everyday materials on the basis of their simple physical properties<br><br>**Seasonal Change**<br>Observe changes across the 4 seasons<br>Observe and describe weather associated with the seasons and how day length varies | **Animals Including Humans**<br>Notice that animals, including humans, have offspring which grow into adults<br>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)<br>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene<br><br>**Materials**<br>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses<br>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching | **States of Matter**<br>**Year 4 Objectives**<br>Compare and group materials together, according to whether they are solids, liquids or gases<br>Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)<br>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature<br><br>**Rocks**<br>**Year 3 Objectives**<br>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties<br>Describe in simple terms how fossils are formed when things that have lived are trapped within rock<br>Recognise that soils are made from rocks and organic matter | **States of Matter**<br>**Year 4 Objectives**<br>Compare and group materials together, according to whether they are solids, liquids or gases<br>Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)<br>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature<br><br>**Rocks**<br>**Year 3 Objectives**<br>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties<br>Describe in simple terms how fossils are formed when things that have lived are trapped within rock<br>Recognise that soils are made from rocks and organic matter | **Light**<br>**Year 3 Objectives (Review and Recap)**<br>Recognise that they need light in order to see things and that dark is the absence of light<br>Notice that light is reflected from surfaces<br>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes<br>Recognise that shadows are formed when the light from a light source is blocked by an opaque object<br>Find patterns in the way that the size of shadows change<br><br>**Year 6 Objectives**<br>Recognise that light travels in straight lines<br>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<br>Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes<br>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them | **Light**<br>**Year 6 Objectives**<br>Recognise that light travels in straight lines<br>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<br>Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes<br>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them<br><br>**Sound (Review and Recap)**<br>**Year 4 Objectives**<br>Identify how sounds are made, associating some of them with something vibrating<br>Recognise that vibrations from sounds travel through a medium to the ear<br>Find patterns between the pitch of a sound and features of the object that produced it<br>Find patterns between the volume of a sound and the strength of the vibrations that produced it<br>Recognise that sounds get fainter as the distance from the sound source increases |
| **Spring** | | | **Animals Including Humans**<br>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals<br>Identify and name a variety of common animals that are carnivores, herbivores and omnivores<br>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)<br>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense<br><br>**Plants**<br>Identify and name a variety of common wild and garden plants, | **Animals Including Humans**<br>Notice that animals, including humans, have offspring which grow into adults<br>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)<br>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene<br><br>**Living Things and Their Habitats**<br>Explore and compare the differences between things that are living, dead, and things that have never been alive<br>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of | **Animals Including Humans**<br>**Year 3 Objectives**<br>Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat<br>Identify that humans and some other animals have skeletons and muscles for support, protection and movement<br><br>**Year 4 Objectives**<br>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<br>Construct and interpret a variety of food chains, identifying producers, predators and prey | **Animals Including Humans**<br>**Year 3 Objectives**<br>Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat<br>Identify that humans and some other animals have skeletons and muscles for support, protection and movement<br><br>**Year 4 Objectives**<br>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<br>Construct and interpret a variety of food chains, identifying producers, predators and prey | **Rocks**<br>**Year 3 Objectives**<br>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties<br>Describe in simple terms how fossils are formed when things that have lived are trapped within rock<br>Recognise that soils are made from rocks and organic matter<br><br>**Materials**<br>**Year 5 Objectives**<br>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<br>know that some materials will dissolve in liquid to form a | **Materials**<br>**Year 5 Objectives**<br>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<br>know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution<br>use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating<br>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic |

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| | | | including deciduous and evergreen trees<br>Identify and describe the basic structure of a variety of common flowering plants, including trees<br><br>**Seasonal Change**<br>Observe changes across the 4 seasons<br>Observe and describe weather associated with the seasons and how day length varies | animals and plants, and how they depend on each other<br>Identify and name a variety of plants and animals in their habitats, including microhabitats<br>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<br><br>**Plants**<br>Observe and describe how seeds and bulbs grow into mature plants<br>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy | | | solution, and describe how to recover a substance from a solution<br>use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating<br>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic<br>Demonstrate that dissolving, mixing and changes of state are reversible changes<br>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 | Demonstrate that dissolving, mixing and changes of state are reversible changes<br>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<br><br>**Evolution and Inheritance**<br>**Year 6 Objectives**<br>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago<br>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents<br>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution |
| **Summer** | | | **Plants**<br>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees<br>Identify and describe the basic structure of a variety of common flowering plants, including trees<br><br>**Seasonal Change**<br>Observe changes across the 4 seasons<br>Observe and describe weather associated with the seasons and how day length varies | **Animals Including Humans**<br>Notice that animals, including humans, have offspring which grow into adults<br>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)<br>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene<br><br>**Living Things and Their Habitats**<br>Explore and compare the differences between things that are living, dead, and things that have never been alive<br>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other<br>Identify and name a variety of plants and animals in their habitats, including microhabitats<br>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<br><br>**Year 3 Objectives**<br>**Plants**<br>Identify and describe the functions of different parts of | **Light**<br>**Year 3 Objectives**<br>Recognise that they need light in order to see things and that dark is the absence of light<br>Notice that light is reflected from surfaces<br>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes<br>Recognise that shadows are formed when the light from a light source is blocked by an opaque object<br>Find patterns in the way that the size of shadows change<br><br>**Sound**<br>**Year 4 Objectives**<br>Identify how sounds are made, associating some of them with something vibrating<br>Recognise that vibrations from sounds travel through a medium to the ear<br>Find patterns between the pitch of a sound and features of the object that produced it<br>Find patterns between the volume of a sound and the strength of the vibrations that produced it<br>Recognise that sounds get fainter as the distance from the sound source increases | **Light**<br>**Year 3 Objectives**<br>Recognise that they need light in order to see things and that dark is the absence of light<br>Notice that light is reflected from surfaces<br>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes<br>Recognise that shadows are formed when the light from a light source is blocked by an opaque object<br>Find patterns in the way that the size of shadows change<br><br>**Sound**<br>**Year 4 Objectives**<br>Identify how sounds are made, associating some of them with something vibrating<br>Recognise that vibrations from sounds travel through a medium to the ear<br>Find patterns between the pitch of a sound and features of the object that produced it<br>Find patterns between the volume of a sound and the strength of the vibrations that produced it<br>Recognise that sounds get fainter as the distance from the sound source increases | **Animals Including Humans**<br>**Year 3 Objectives (Review and Recap)**<br>Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat<br>Identify that humans and some other animals have skeletons and muscles for support, protection and movement<br><br>**Year 4 Objectives**<br>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<br>Construct and interpret a variety of food chains, identifying producers, predators and prey<br><br>**Year 5 Objectives**<br>Describe the changes as humans develop to old age<br><br>**Year 6 Objectives**<br>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood<br>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function<br>Describe the ways in which nutrients and water are | **Earth and Space**<br>**Year 5 Objectives**<br>Describe the movement of the Earth and other planets relative to the sun in the solar system<br>Describe the movement of the moon relative to the Earth<br>Describe the sun, Earth and moon as approximately spherical bodies<br>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky<br><br>**Animals Including Humans**<br>**Year 4 Objectives**<br>Describe the simple functions of the basic parts of the digestive system in humans<br>Identify the different types of teeth in humans and their simple functions<br>Construct and interpret a variety of food chains, identifying producers, predators and prey<br><br>**Year 5 Objectives**<br>Describe the changes as humans develop to old age<br><br>**Year 6 Objectives**<br>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood<br>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function |

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| | | | | flowering plants: roots, stem/trunk, leaves and flowers<br>Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant<br>Investigate the way in which water is transported within plants<br>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal | | | transported within animals, including humans<br><br>**Earth and Space**<br>**Year 5 Objectives**<br>Describe the movement of the Earth and other planets relative to the sun in the solar system<br>Describe the movement of the moon relative to the Earth<br>Describe the sun, Earth and moon as approximately spherical bodies<br>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky | Describe the ways in which nutrients and water are transported within animals, including humans |