

The learning journey: Animals including Humans

Year	Statutory Requirements from the Programme of Study
F	<ul style="list-style-type: none"> • Talk about and describe themselves naming similarities and differences of themselves and others • Explore the world around them with all of their senses • Name different parts of the body and face • Explore the natural world around them, making observations and drawing pictures of animals and plants • Be able to name animals from different climates around the world
1	<ul style="list-style-type: none"> • Identify, name draw and label the basic parts of the human body and say which parts of the body is associated with each sense. • Identify and name a variety of common animals that are birds, fish, amphibians, reptiles and mammals • Describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles and mammals, and including pets). • Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
2	<ul style="list-style-type: none"> • Identify the basic stages in a life cycle of animals (including humans) • Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) • Show an understanding as to why exercise, balanced diet are important for humans. • Understand why good hygiene is important
3	<ul style="list-style-type: none"> • Understand the importance of a nutritious, balanced diet • Explain how nutrients, water and oxygen are transported within animals and humans • Understand the skeletal and muscular system of a human • Test to see if their right hand is as efficient as their left hand - Explain to a partner why a test is a fair one e.g. lifting weights with right
4	<ul style="list-style-type: none"> • Identify and name the parts of the human digestive system • Understand the functions of the organs in the human digestive system • Use research to find out how much time it takes to digest most of our food • Identify the different types of human teeth • Understand the functions and structure of different human teeth • Understand that food and drinks can damage teeth and know how to look after them. • Use and construct food chains to identify producers, predators and prey
5	<ul style="list-style-type: none"> • Describe changes as humans develop from birth to old age, in particular puberty • Create a timeline to indicate stages of growth in humans • Set up an enquiry-based investigation e.g. find out what adults / children can do now that they couldn't when a baby
6	<ul style="list-style-type: none"> • Identify and name the main parts of the human circulatory system • Explain the functions of the heart, blood vessels and blood • Understand the impact of diet, exercise, drugs and lifestyle on the way their bodies function • Explain the ways in which nutrients and water are transported within animals, including humans

The learning journey: Materials

Year	Statutory Requirements from the Programme of Study
F	<ul style="list-style-type: none"> Explore floating and sinking with a range of materials and objects
1	<p>Everyday materials</p> <ul style="list-style-type: none"> Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. Distinguish between an object and the material from which it is made 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.
2	<p>Uses of everyday materials</p> <ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday different materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses based on their properties Understand that materials can be changed by squashing, bending, twisting and stretching. Compare the use of different materials Compare movement on different surfaces Understand why a material might or might not be used for a specific job
3	<p>Rocks</p> <ul style="list-style-type: none"> Compare and group rocks based on their appearance and physical appearance and physical properties, giving reasons Explain the difference between sedimentary, metamorphic and igneous rock Use research to find out what the main differences are between sedimentary and igneous rocks Understand how soil is made- recognise that soil is made from rocks and organic matter. Explain how fossils are formed
4	<p>States of Matter</p> <ul style="list-style-type: none"> Compare and group materials together, according to whether they are solids, liquids or gases Explore how some materials can change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius Use a thermometer to measure temperature and know there are two main scales used to measure temperature Use a data logger to check on the time it takes ice to melt to water in different temperatures Know the part played by evaporation and condensation in the water cycle
5	<p>Properties and changes of materials</p> <ul style="list-style-type: none"> Identify and understand what soluble and insoluble materials are Explain how a material dissolves to form a solution Show how to recover a substance from a solution (evaporation) Compare and group materials based on their properties (e.g hardness, solubility, transparency, conductivity, (electrical & thermal), and response to magnets Demonstrate how some materials can be separated (e.g. through filtering, sieving and evaporating Explain and demonstrate that some changes are reversible and some are not Understand how some changes result in the formation of a new material and that this is usually irreversible

The learning journey: Plants

Year	Statutory Requirements from the Programme of Study
F	<ul style="list-style-type: none">• Be able to name some of the parts of a plant and talk about what plants need to grow (roots and flowers)
1	<ul style="list-style-type: none">• Identify and name a variety of common, wild and garden plants• Identify and name the petals, stem, leaves and roots of a plant.• Identify and name the roots, trunk, branches and leaves of a tree.
2	<ul style="list-style-type: none">• Explain how seeds and bulbs grow into plants (life cycle of a plant)• Understand what plants need in order to grow and stay healthy (water, light and suitable temperature)
3	<ul style="list-style-type: none">• Group information according to common factors e.g. plants that grow in woodlands or plants that grow in gardens• Observe which type of plants grow in different places e.g. bluebells in woodland, roses in domestic gardens, etc. (possible nature walk)• Identify the function of different parts of flowering plants and trees• Explain how water is transported within plants• Explain the plant life cycle, especially the importance of flowers.• Set up a fair test with different variables e.g. the best conditions for a plant to grow

The learning journey: Living Things and Their Habitats

Year	Statutory Requirements from the Programme of Study
F	<ul style="list-style-type: none"> • Be able to name animals from different climates around the world
2	<ul style="list-style-type: none"> • Classify things by living, dead or never lived. • Understand what a habitat is and name some • Show an understanding of how a specific habitat provides for the basic needs of things living there (plants and animals) • Match living things to their habitats. • Name some different sources of food for animals • Explain a simple food chain.
4	<ul style="list-style-type: none"> • Identify the characteristics of living things • Recognise that living things can be grouped in a variety of ways • Use classification keys to help group, identify and name a variety of living things in their local and wider environment • Understand how changes to an environment could endanger living things
5	<ul style="list-style-type: none"> • Understand the process of reproduction in plants • Identify the life cycle of different living things e.g. mammal, amphibian, insect and bird • Understand the differences between different life cycles • Understand the process of reproduction in animals
6	<ul style="list-style-type: none"> • Classify living things into broad groups according to observable characteristics and based on similarities and differences • Understand and demonstrate how to classify living things • Give reasons for classifying plants and animals including micro-organisms in a specific way • Able to give an example of something they have focused on when supporting a scientific theory e.g. classifying vertebrate and invertebrate creatures or why certain creatures choose their unique habitats

The learning journey: Forces

Year	Statutory Requirements from the Programme of Study
3	<p>Forces and magnets</p> <ul style="list-style-type: none">• Understand and describe how objects move on different surfaces• Explain how some forces require contact and some do not, giving examples• Observe how magnets attract or repel each other and attract some materials and not others• Predict whether magnets will attract or repel and give a reason
5	<p>Forces</p> <ul style="list-style-type: none">• Explain what gravity is and its impact on our lives (distinguish between weight and mass; know the role Isaac Newton played in developing the theory)• Identify and know the effect of air and water resistance• Identify and know the effect of friction• Explain how levers, pulleys and gears allow a smaller force to have a greater effect

The learning journey: Light

Year	Statutory Requirements from the Programme of Study
3	<ul style="list-style-type: none">• Understand the danger of direct sunlight and describe how to keep protected• Understand that dark is the absence of light• Identify how the eye works• Explain how light travels in a straight line and is needed in order to see and is reflected from a surface• Demonstrate how a shadow is formed and explain how a shadow changes• Use research to find out how reflection can help us see things that are around the corner
6	<ul style="list-style-type: none">• Explain how light travels• Demonstrate how we see objects• Explain how the eye works• Investigate how shadows are formed• Explain and demonstrate why shadows have the same shape as the object that casts them• Sir Isaac Newton discovered the rainbow (refraction)

The learning journey: Electricity

Year	Statutory Requirements from the Programme of Study
4	<ul style="list-style-type: none"> Identify and name appliances that require electricity to function Identify and name the components in a series circuit (including cells, wires, bulbs, switches and buzzers) Construct a simple series circuit Predict and test whether a lamp will light within a circuit Understand the function of a switch Understand the difference between a conductor and an insulator; giving examples of each Use research to find out which materials make effective conductors and insulators of electricity Group information according to common factors e.g. materials that make good conductors or insulators
6	<ul style="list-style-type: none"> Compare and give reasons for how components work and do not work in a circuit Draw circuit diagrams using correct symbols Understand how the number and voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer

The learning journey: Evolution and Inheritance

Year	Statutory Requirements from the Programme of Study
6 Links to rocks, animals including humans, plants, animals including habitats	Evolution and Inheritance <ul style="list-style-type: none"> Understand how the Earth and living things have changed over time Explain how fossils can be used to find out about the past Explain about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents) Understand how animals and plants are adapted to suit their environment Link adaptation over time to evolution Show a clear understanding about evolution and explain what it is