# Cliffe Woods Primary school
# EYFS

# Science Coverage Overview

| Terms 1 & 2 | Terms 3 & 4 | Terms 5 & 6 |
|---|---|---|
| **Ourselves**<br>• Growing and changing.<br>• Keeping healthy.<br>• Our senses. | **Water**<br>• The water-cycle.<br>• Investigating materials.<br>• Investigating floating, sinking, freezing and dissolving.<br>• Animal habitats.<br>• Growing plants. | **Animals/Child-led**<br>• Life cycles.<br>• Habitats.<br>• Dinosaurs.<br>• Space.<br>• Forces. |

## Milestone 1

| Week | Terms 1 & 2 | Terms 3 & 4 | Terms 5 & 6 |
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| 1 | **Biology**<br>**To Understand Evolution and Inheritance**<br>• Identify how humans resemble their parents in many features. | **Biology**<br>**To Investigate Living Things**<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 micro-habitats.<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. | **Biology**<br>**To Understand Plants**<br>• Identify and name a variety of common plants, including garden plants, wild plants and trees and those classified as deciduous and evergreen.<br>• Identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers.<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.<br>• Identify and name a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates.<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 (birds, fish, amphibians, reptiles, mammals and invertebrates, including pets). |
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| 3 | **Biology**<br>**To Understand Animals and Humans**<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>• Notice that animals, including humans, have offspring which grow into adults.<br>• Investigate 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. | | |
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| 5 | | **Chemistry**<br>**To Investigate 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>• Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.<br>• Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock and paper/cardboard for particular uses. | |
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| 8 | **Biology**<br>**To Investigate Living Things**<br>• Explore and compare the differences between things that are living, that are dead and things that have never been alive. | | **Physics**<br>**To Understand Movement, Forces and Magnets**<br>• Notice and describe how things move, using simple comparisons such as faster and slower.<br>• Compare how different things move. |
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| 10 | **Physics**<br>**To Understand Electrical Circuits**<br>• Identify common appliances that run on electricity.<br>• Construct a simple series electrical circuit. | | |
| 11 | | **Physics**<br>**To Understand The Earth's Movement in Space**<br>• Observe the apparent movement of the Sun during the day.<br>• Observe changes across the four seasons.<br>• Observe and describe weather associated with the seasons and how day length varies. | **Physics**<br>**To Understand Light and Seeing**<br>• Observe and name a variety of sources of light, including electric lights, flames and the Sun, explaining that we see things because light travels from them to our eyes. |
| 12 | | | **Physics**<br>**To Investigate Sound and Hearing**<br>• Observe and name a variety of sources of sound, noticing that we hear with our ears. |

**Cliffe Woods Primary school** **Science Coverage Overview** **Milestone 2**

| Week | Terms 1 & 2 | Terms 3 & 4 | Terms 5 & 6 |
|---|---|---|---|
| 1 | **Physics**<br>**To Understand the Earth's Movement in Space**<br>• Describe the movement of the Earth relative to the Sun in the solar system.<br>• Describe the movement of the Moon relative to the Earth. | **Biology**<br>**To Understand Animals and Humans**<br>• Construct and interpret a variety of food chains, identifying producers, predators and prey.<br>• Identify that humans and some animals have skeletons and muscles for support, protection and movement.<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. | **Biology**<br>**To Understand Evolution and Inheritance**<br>• Identify how plants and animals, including humans, resemble their parents in many features.<br>Identify how animals and plants are suited to and adapt to their environment in different ways.<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. |
| 2<br>3<br>4 | **Chemistry**<br>**To Investigate Materials**<br>• Compare and group together different kinds of rocks on the basis of their simple, physical properties.<br>• Relate the simple physical properties of some rocks to their formation (igneous or sedimentary).<br>• Recognise that soils are made from rocks and organic matter. | | **Chemistry**<br>**To Investigate Materials**<br>• Describe in simple terms how fossils are formed when things that have lived are trapped within sedimentary rock. |
| 5<br>6<br>7 | **Biology**<br>**To Understand Plants**<br>• Identify and describe the functions of different parts of flowering plants: roots, stem, 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 role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. | | **Physics**<br>**To Understand Movement, Forces and Magnets**<br>• Notice that some forces need contact between two objects, but magnetic forces can act at a distance.<br>• Observe how magnets attract or repel each other and attract some materials and not others.<br>• 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.<br>• Describe magnets as having two poles.<br>• Predict whether two magnets will attract or repel each other, depending on which poles are facing. |
| 8<br>9 | **Biology**<br>**To Understand Animals and Humans**<br>• Identify that animals, including humans, need the right types and amounts of nutrition, that they cannot make their own food and they get nutrition from what they eat. | **Biology**<br>**To Investigate Living Things**<br>• Recognise that living things can be grouped in a variety of ways.<br>• Explore and use classification keys.<br>• Recognise that environments can change and that this can sometimes pose dangers to specific habitats. | **Physics**<br>**To Understand Light and Seeing**<br>• Recognise that light is required 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 your eyes.<br>• Recognise that shadows are formed when the light from a light source is blocked by a solid object.<br>• Find patterns in the way that the size of a shadow changes. |
| 10<br>11<br>12 | **Chemistry**<br>**To Investigate Materials**<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 the temperature at which this happens in degrees Celsius (°C), building on the teaching in mathematics.<br>• Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. | **Physics**<br>**To Understand Movement, Forces and Magnets**<br>• Compare how things move on different surfaces.<br><br>**Physics**<br>**To Understand Sound and Hearing**<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. | **Physics**<br>**To Understand Electrical Circuits**<br>• Identify common appliances that run on electricity.<br>• Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.<br>• Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.<br>• Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. |

**Cliffe Woods Primary school** **Science Coverage Overview** **Milestone 3**

| Week | Terms 1 & 2 | Terms 3 & 4 | Terms 5 & 6 |
|---|---|---|---|
| 1 | **Biology**<br>**To Investigate Living Things**<br>• Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.<br>• Describe the life process of reproduction in some plants and animals.<br>• Describe how living things are classified into broad groups according to common observable characteristics | **Biology**<br>**To understand animals and humans**<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 importance of diet, exercise, drugs and lifestyle on the way the human body functions.<br>• Describe the ways in which nutrients and water are transported within animals, including humans. | **Physics**<br>**To Understand the Earth's Movement in Space**<br>• Describe the movement of the Earth 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. |
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| 3 | | | **Biology**<br>**To Understand Plants**<br>• Relate knowledge of plants to studies of evolution and inheritance.<br>• Relate knowledge of plants to studies of all living things.<br>• Describe the changes as humans develop to old age. |
| 4 | **Chemistry**<br>**To Investigate Materials**<br>• Compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, solubility, conductivity (electrical and thermal), and response to magnets.<br>• Understand how 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.<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, oxidisation and the action of acid on bicarbonate of soda. | **Physics**<br>**To Investigate Sound and Hearing**<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. | |
| 5 | | | **Biology**<br>**To Investigate Living Things**<br>• Give reasons for classifying plants and animals based on specific characteristics. |
| 6 | | | **Biology**<br>**To Understand Evolution and Inheritance**<br>• Identify how animals and plants are adapted to suit their environment in different ways and how that adaptation may lead to evolution. |
| 7 | | **Biology**<br>**To Understand Evolution and Inheritance**<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. | **Physics**<br>**To Understand Movement, Forces and Magnets**<br>• Describe, in terms of drag forces, why moving objects that are not driven tend to slow down.<br>• Understand that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs.<br>• Understand that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. |
| 8 | | | |
| 9 | **Physics**<br>**To Understand Movement, Forces and Magnets**<br>• Describe magnets as having two poles.<br>• Predict whether two magnets will attract or repel each other, depending on which poles are facing.<br>• Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.<br>• Identify the effect of drag forces such as air resistance, water resistance and friction that act between moving surfaces. | **Physics**<br>**To Understand Electrical Circuits**<br>• Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.<br>• Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.<br>• Use recognised symbols when representing a simple circuit in a diagram. | |
| 10 | | | **Physics**<br>**To Understand Light and Seeing**<br>• Understand that light appears to travel 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 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, and to predict the size of shadows when the position of the light source changes.<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. |
| 11 | | | |
| 12 | | **Physics**<br>**To Understand the Earth's Movement in Space**<br>• Describe the movement of the Earth relative to the Sun in the solar system. | |