

EYFS: The Natural World

Children begin their observation of the world around them through personal and in class experiences. They are made aware of some differences and similarities between the natural world around them and contrasting environments. There is then opportunities for children to understand different natural process like the seasons and changing states of matter.

Year 1 Biology:

Animal parts - Children continue their observations by identifying and naming a variety of common animals. They are then introduced to carnivores, herbivores and omnivores. They look at where animals live, how their climate affects their diet and how animals should be cared for.

Human Senses - Children carry on learning about our 5 senses and the body parts associated with each sense and their role in keeping us safe. They name and count body parts and identify similarities and differences between humans.

Plant Parts – The children will explore plants in the local environment, naming the basic parts of plants. They will look at what a plant needs to grow.

Year 1 Physics:

Seasonal Changes – The children will continue to explore the seasons, looking at seasonal changes and typical season weather. They will learn about measuring the weather and the role of a meteorologist. They will learn about the science of day and night and recognise the varying day lengths in the UK.

Everyday Materials - Children use their observational skills to understand the properties of everyday materials. They begin to recognise that a material's properties define its use.

Year 1 Chemistry:

Everyday Materials – The learning in this unit continues by children experimenting with different materials to conclude if they are fit for purpose.

Year 2 Biology:

Habitats- The learning continues from Year 1 as children continue to make careful observations of different animals and their habitats. Using scientific equipment i.e. hand lenses.

Human Survival – Children carry on making observations on the importance of food and the impact of food but this time on us as humans. They explore what healthy living is both physically and mentally. Children will learn how human offspring grow and change over time into adulthood.

Plant Survival - Continuing the learning from Y1, children will observe plants growing from a seed to a plant through their own gardening experience. Children will observe what plants need to grow healthy.

Animal survival- Children will learn about growth in animals by exploring the life cycles of some familiar animals. They will build on learning about the survival of humans by identifying the basic needs of animals for survival, including food, water, air and shelter.

Year 2 Physics:

Uses of materials – Learning will build on the learning in Yr1, exploring the uses of everyday materials and how material's properties make them suitable or unsuitable for specific purposes. They will begin exploring how materials can be changed.

Year 2 Chemistry:

Uses of materials – Exploration of materials continue in this unit as many experiments are carried out to explore properties of materials.

Year 6 Biology:

Circulatory System – Using learning built on from previous years, children will observe the human circulatory system, its main parts and primary functions. They will also explore healthy lifestyle choices and the effects of harmful substances on the body.

Evolution and Inheritance – Children will explore how characteristics are passed from parents to their offspring and how variation in offspring can affect their survival.

Year 6 Physics:

Electrical Circuits and Components – Using the knowledge from Yr4, children will experiment with more complex electrical circuits. They will combine learning to design and make programmable home devices. (Linked to DT)

Light Theory – Building on from Yr3 children will explore the way that light behaves, travelling in a straight line from a source or reflector, into the eye.

Year 6 Chemistry:

Evolution and Inheritance – Building on Yr4 knowledge of rocks, learning will explore how fossils provide evidence of how living things on Earth have changed over time.

Year 5 Physics:

Forces and Mechanisms – Continued from Yr2 and Yr3, learning will focus on the forces and gravity, air resistance, water resistance and friction.

Earth and Space – Children will learn about the Solar System and its spherical celestial bodies. Learning is linked to Yr1 to explore the Earth's rotation resulting in day and night.

Year 5 Chemistry:

Properties and Changes of Materials – Continuing from Yr2 and Yr4, children will learn about mixtures and how they can be separated using sieving, filtration and evaporation. They will also learn about reversible and irreversible changes.

Year 5 Biology:

Human Reproduction and Aging – Children will continue their learning from 'Animal Survival' to look at different life cycles, including the human life cycle. They will explore human growth and development to old age, including the changes experienced during puberty and human reproduction.

Sow, Grow and Farm

Through this cross curricular topic, the children will learn about food chains and webs, life cycles and plant reproduction.

Year 3 Biology:

Animal nutrition and the skeletal system – Learning will continue from Yr2 with looking at different food groups and the impact on our bodies as humans and animals. Children go on further to learn about the role of a skeleton and muscles and identify animals with different types of skeleton.

Plant nutrition and reproduction – The learning continues in Yr3 to focus on the requirements of plants for growth and survival. Children will describe the parts of a flowering plant and relate structures to function, including the roots and stem for transporting water, leaves for making food and flowers for reproduction.

Year 3 Physics:

Forces and Magnets- Continuing from Yr2 'Uses of materials', Y3 look at the force of attraction and repel using magnets and experiment with this to make observations and conclusions about magnetic forces. They will also investigate frictional forces.

Light and Shadows- The children will learn about light and dark. They investigate the phenomena of reflections and shadows, looking for patterns in collected data. The risk from the sun is also explored, building on from 'Seasonal Changes' in Yr1.

Year 3 Chemistry:

Rocks Relics and Rumbles- Year 3 will observe different types of rocks and the processes in which these rocks are formed. Children will observe, investigate and name a variety of rocks and their properties. They will learn how soil is made and how fossils are formed.

Year 4 Biology:

Grouping and Classifying – Learning continues from Yr2 and Yr3, children observe plants and animals and group them using classifications and keys to group different species. Children will also learn about the impact that environmental changes can have on a species.

Food and the Digestive System – Learning is continued as they explore the human digestive system, starting with the mouth and teeth. Children will link this to animal's diets and construct food chains to show the flow of energy.

Year 4 Physics:

Electrical Circuits and Conductors – Learning will involve exploring different electrical circuits and appliances, observing different variables and solving electrical problems. Children will use their knowledge of circuits to design and make a battery powered light. (linked to DT)

Sound – Continuing on from the learning about the human body in Years 1 and 2, we will identify what sound is, how it is created and how it is measured. The function of the human ear will also be investigated.

Year 4 Chemistry:

States of matter – Continuing on from Years 1 and 2, children will observe properties of different materials and group them. Learning will go further to explore different states of matter – liquid, solids and gases. Children will observe how materials change state as they are heated and cooled.

Misty Mountain, Winding River – In this cross curricular topic the children will explore the water cycle and the effects of evaporation, condensation and

Our Science Learning Journey

