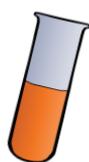


All about Science at Merrylands Primary School and Nursery

Our vision for Science is to provide a curriculum which allows children to investigate and experiment practically. We will excite our children with the unpredictability of Science, plan our lessons to link to the wider world and offer them opportunities to pursue their natural curiosity. Our aim with this is to make Science relevant to the children so that they engage with their learning and ultimately develop their scientific skills to become better equipped learners.



How do the children learn about Science?

Early Years Foundation Stage

In Nursery and Reception, Science is included in the area of Understanding the World. It is taught in a very cross curricular and practical way. Through their play, the children have opportunities to explore and investigate a range of objects, materials and environments.

The Early Learning Goal is the expectation for what the children will learn by the end of Reception.

Children will know about: similarities and differences in relation to places, objects, about materials and living things. To achieve this, children will talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.



Working Scientifically

A huge part of Science, alongside the content, is working scientifically. This is very important to us at Merrylands and we take pride in ensuring all lessons provide time for the children to explore their own ideas, make observations, compare, and carry out investigations and experiments to enhance their exploration in Science. Science knowledge is taught as children explore Science ideas.



What knowledge will your child develop in KS1?

Year 1

Plants: to recognise different trees and flowers and know the structure of a plant.

Animals including humans: name parts of the body, different animals and what they eat.

Everyday materials: compare, describe and identify different materials. Identify seasonal changes.

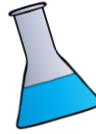
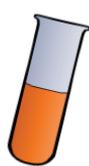
Seasonal change: observe and describe changes across the four seasons.

Year 2:

Plants: the needs of plants in order to survive and how seeds and bulbs grow into plants.

Animals including humans/living things and their habitats: what animals and humans need to survive. Growth over time and healthy eating. Food chains. Comparing the differences between things that are living, dead and have never been alive.

Every day materials: to compare everyday materials for their suitability and uses



What knowledge will your child develop in LKS2?

Year 3

Plants: the functions of different parts, life cycle of flowers, water transportation and what plants need to survive.

Animals including humans: what your body needs to be healthy, what a skeleton and muscles do.

Rocks: what soil is made from, different types of rocks and how fossils are made.

Light: sources and shadows.

Forces and magnets: identifying how objects can be magnetic and can attract or repel.

Year 4

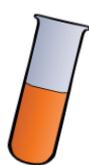
Living things: to classify living things.

Animals including humans: food chains, how our teeth work and what they do, the human digestive system.

States of matter: the water cycle, changes of state – gas, liquid, solid.

Sound: to explore the different pitches, how sounds are made and how the volume is effected by the vibrations.

Electricity: to construct a circuit using cells, wires, bulbs, switches and buzzers.



What knowledge will your child develop in UKS2?

Year 5

Living things and their habitats: the life cycles or different types of animals and plants e.g. insects, mammals.

Animals including humans: how humans change as they age.

Forces: air resistance, water resistance and friction. Levers, pulleys and pulleys.

Properties and changes of materials: irreversible changes and why certain materials are best suited for particular jobs.

Earth and Space: describe the movement of the Earth and other planets.

Year 6

Living things and their habitats: to classify living things based on their different characteristics.

Animals including humans: to recognise the importance of exercise and keeping our bodies healthy, functions of the circulatory system.

Evolution and Inheritance: to identify how animals and humans have evolved to suit the habitat/area they live in.

Light: to recognise and explain that light travels in straight lines to/from the object from/to our eyes.

Electricity: to compare sound and brightness changes and how this is happening.



Great websites for science ideas

- * <https://education.gov.scot/parentzone/learning-at-home/Supporting%20science%20at%20home>
- * <http://www.sciencefun.org/kidszone/experiments/>
- * <https://www.bbc.com/bitesize/subjects/z2pfb9q>
- * <http://www.sciencekids.co.nz/gamesactivities.html>
- * <http://www.foodafactoflife.org.uk/Activity.aspx?contentId=56>
- * <https://www.iflscience.com/chemistry/unfinished-20-fun-science-experiments-you-can-do-home/>



How can you help your child explore science at home?

Science is a way of understanding the world, a perspective, and a pattern of thinking that begins in the very early years. That is why, at Merrylands, we appreciate your support in your child's learning at home. Parent involvement in Science is so important just like in the other core subjects, Maths and English.

Families who explore together nurture great young scientists! With this in mind, the National Science Teachers Association has created a set of resources for parents – Help Your Child Explore Science.

Lead family discussions on Science related topics. Do Science together. Children, learn better by investigating and experimenting themselves. Simple investigations done together in the home can boost what your child is learning at school. Check with your child's teacher what your child is currently learning in class and what activities you can explore at home or look out for the half termly challenge on the school news letter.



**Show your excitement for
Science!**

