LKS2 Science
Stay and Learn – March'25

BRITISH SCIENCE WEEK
7 – 16 March 2025

Great Sankey Primary School

'Together We Learn and Grow'

Welcome!

Today we hope to:

- **Provide you with some information as to what the science curriculum looks like for your children in Years 3 and 4.**
- **Explain to you how we teach science at Great Sankey Primary School .**
- **Give you some ideas as to how you can support your child with their science learning and understanding at home.**
- **Offer an insight into what aspects of science can look like in school.**
- **No planned fire drills.**
- **Use of mobile phones not allowed due to safeguarding policies in place.**

The National Curriculum – KS2

Working scientifically

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.

The National Curriculum For Science in KS2 builds upon the children's learning in Science from KS1 and their understanding of the world around them.

It's a subject where children are encouraged to be inquisitive, ask questions and learn about the world around them.

The 'Working Scientifically' aims underpin the practical Science that children will cover across LKS2.

Working Scientifically – LKS2

I can suggest improvements and raise further questions.

I can make careful observations.

I can draw simple conclusions and make predictions for new values.

Working Scientifically at Lower Key Stage 2

I can ask my own questions and use different ways to answer them.

I can set up my own simple tests.

I can use relevant scientific language.

I can explain what I have found using speaking and writing,

I can gather, record, classify and present data in different ways.

I can use different equipment to measure accuracy in standard units.

We teach topics across a two-year cycle at GSP due to our mixed age range classes:

CYCLE A

AUTUMN		SPRING		SUMMER
• HUMANS • Pupils should be taught to: • 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 • identify that humans and some other animals have skeletons and muscles for support, protection and movement.	• ROCKS & SOILS • Pupils should be taught to: • compare and group together different kinds of rocks on the basis of their appearance and simple physical properties • describe in simple terms how fossils are formed when things that have lived are trapped within rock • recognise that soils are made from rocks and organic matter.	• LIGHT • Pupils should be taught to: • recognise that they need light in order to see things and that dark is the absence of light • notice that light is reflected from surfaces • recognise that light from the sun can be dangerous and that there are ways to protect their eyes • recognise that shadows are formed when the light from a light	• PLANTS • Pupils should be taught to: • identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers • 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 investigate the way in which water is transported within plants • explore the part that flowers play in the life cycle of flowering plants, including pollination, seed	• FORCES AND MAGNETS • Pupils should be taught to: • compare how things move on different surfaces • notice that some forces need contact between two objects, but magnetic forces can act at a distance • observe how magnets attract or repel each other and attract some materials and not others • 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 • describe magnets as having two poles • predict whether two magnets will attract or repel each other, depending on which poles are facing.

Working Scientifically objectives span across the two years that children spend in LKS2. Some topics lend themselves to objectives more than others.

Cycle B

AUTUMN		SPRING		SUMMER
• ANIMALS INCLUDING HUMANS • Pupils should be taught to: • 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	• ELECTRICITY • Pupils should be taught to: • identify common appliances that run on electricity • construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers • 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 • recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit • recognise some common conductors and insulators, and associate metals with being good conductors.	• STATES OF MATTER • Pupils should be taught to: • compare and group materials together, according to whether they are solids, liquids or gases • 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) • identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	• LIVING THINGS & THEIR HABITATS • Pupils should be taught to: • recognise that living things can be grouped in a variety of ways • explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • recognise that environments can change and that this can sometimes pose dangers to living things. • construct and interpret a variety of food chains, identifying producers, predators and prey.	• SOUND • Pupils should be taught to: • identify how sounds are made, associating some of them with something vibrating • recognise that vibrations from sounds travel through a medium to the ear • find patterns between the pitch of a sound and features of the object that produced it • find patterns between the volume of a sound and the strength of the vibrations that produced it • recognise that sounds get fainter as the distance from the sound source increases.

How is Science taught at GSP?

- When we start each unit of learning, we retrieve all relevant prior knowledge from our time in either the previous year or the previous topic using various retrieval tasks – e.g. quizzing, true/false statements, odd one out picture tasks etc.

- We address any misconceptions at this point - before we build on their current understanding with new learning.

How is Science taught at GSP?

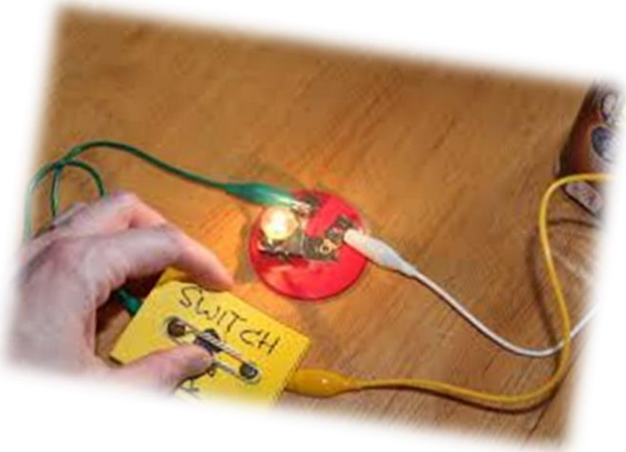
Explorify

FabLab Warrington

How is Science taught at GSP?

- We deliver the knowledge content set by the National Curriculum through a series of carefully sequenced lessons which incorporate the practical enquiry sessions to cover the Working Scientifically objectives.

- We use various resources to aid the children's understanding including video clips, actual resources, books, trips and technology. We also use the range of Science resources we have in school – minibeast finders, magnifiers, electrical circuits etc.

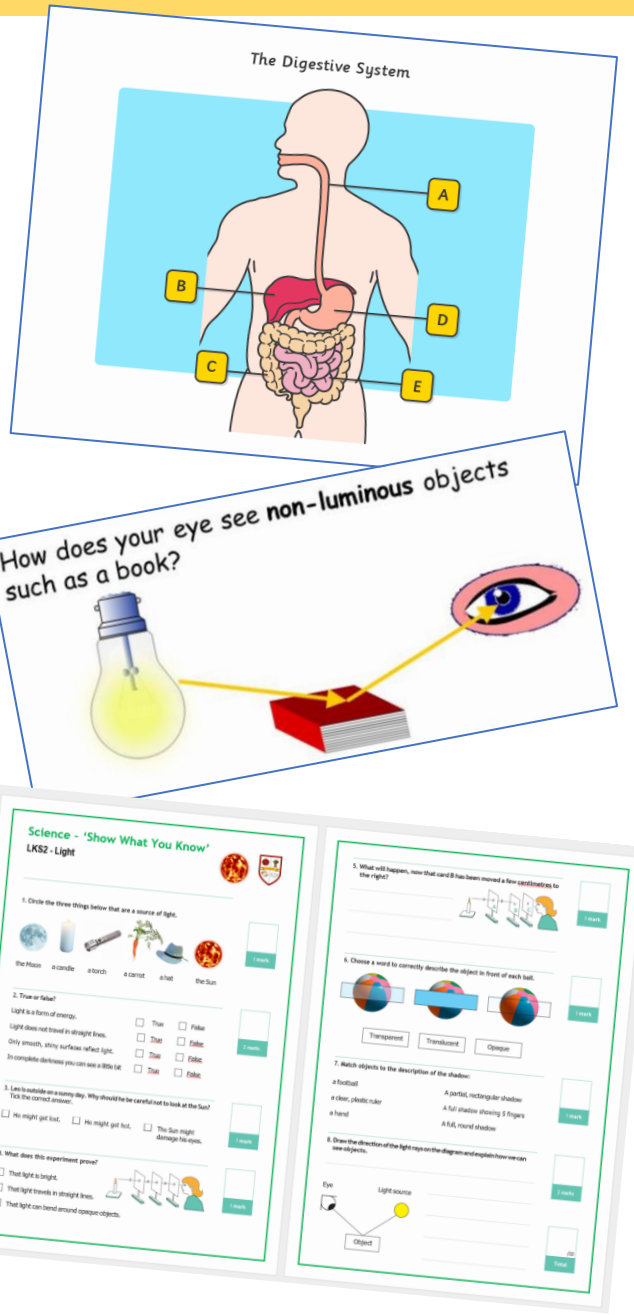


- The children are asked to think like scientists, work like scientists and record like scientists.

Assessing Science @ GSP

- Assessment takes place every day, every lesson as a part of the teaching cycle. Lots of this is done practically or through the lesson activities the children complete.

- At the end of Key Stage 2 when children finish their time at Primary School, teachers make a judgement as to whether the children have achieved the Expectations in Science and understand the content that has been delivered.

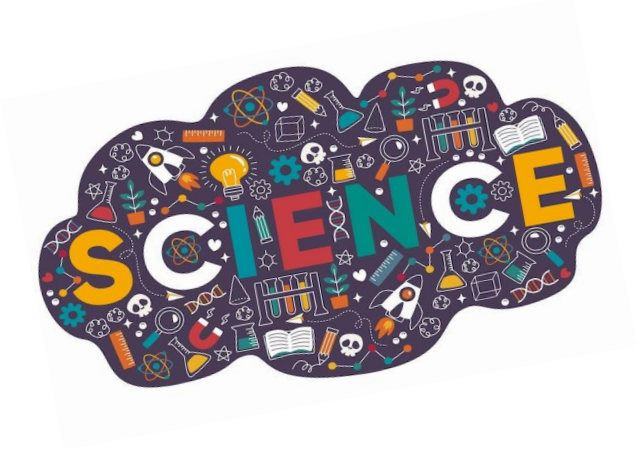


How can families support at home?

- Help your child learn about the world around them by talking to them about Science in the home and out in Nature - e.g steam from the kettle, condensation, rainbows, animal habitats etc.

- Ask your children to explain what they have been learning about in their science lessons.

- Help them to explain any scientific vocabulary accurately.



- Visit our Science section on the school website and look at the different Science resources available online.

Places To Visit

Questions & Classroom Visits