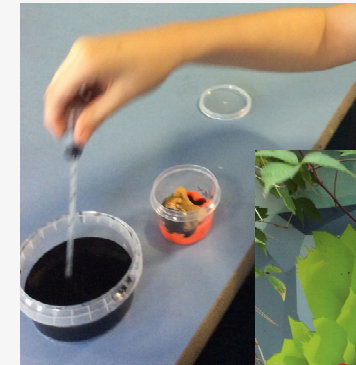
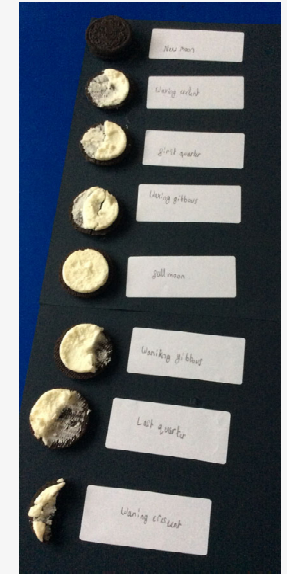
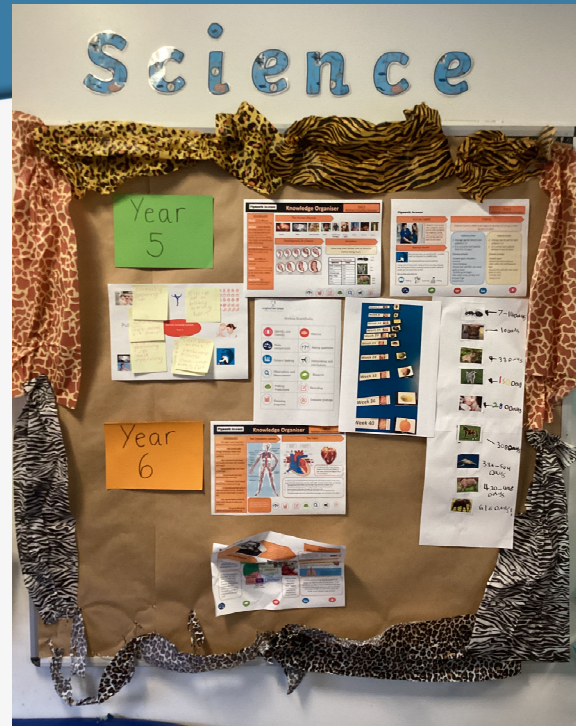


Science



Vision

Our aim in school is to ensure we truly understand the pupils we teach.

Our school values

We believe in ourselves and each other.

We all belong in our community.

Everyone becomes the best they can be.

Longford Park is a school for pupils with identified social, emotional and mental health difficulties, and its policies must reflect this. Whilst this is a primary diagnosis for the majority of pupils here, our pupils can be best summarised as having 'multiple vulnerabilities'. Due to the nature of the difficulties experienced by all of our pupils, the curriculum has to be flexible and adaptive to individual needs.

A great deal of emphasis is placed upon the social and emotional development of the pupil, the ability to co-operate, share, to tolerate each other, respect themselves and each other and to contribute to a positive atmosphere within the school. The school is dedicated to creating a safe and secure learning environment with the intention of raising the pupils' self-esteem and eradicating any feelings of worthlessness and failure. In order to reach these goals, the school encompasses a variety of teaching methods and learning styles.

The curriculum provided is flexible in its approach and delivery. This is to facilitate learning at all levels, accommodating pupils who have not had recent experience of the National Curriculum. In response to this, each overview for the core curriculum areas is a basic framework from which to work from so as to allow for the needs of a changing pupil population.



Aims

At Longford Park School, the curriculum is designed to recognise children's existing knowledge. Within each subject, we have identified a very succinct outline of the knowledge that pupils need to acquire by the end of each year. As a result of careful planning, pupils consistently relate back to previous learning when exemplifying learning related to their current topics or themes. Through carefully considered first hand learning experiences, we will allow the children to develop interpersonal skills, build resilience and become creative, critical thinkers.

Our curriculum is a powerful vehicle utilised to maximise the potential of each individual and overcome all barriers to learning.



Intent

We hope for children to achieve their curriculum targets through the five principles of scientific

enquiry - Observation over time, fair test, classifying, pattern seeking and re-search.

We hope through this children should establish skills in observation, measurement, classification, collation, communication, investigation, prediction, problem-solving, questioning and reasoning, revising hypotheses, controlling variables, interpreting data, experimentation and evaluation, recognising a fair test.

Also, developing and encouraging curiosity, questioning, originality, creativity and inventiveness, perseverance, open-mindedness, self-criticism, responsibility and safety. On top of all this, a willingness to co-operate, independence of thought, sensitivity to their environment and that of others.



Implementation

Science books reflect the ability range within the class-pupils may be working on different National Curriculum objectives. Inclusion and pupil voice paramount to lessons here.

Books evidence a minimum of one pupil-led scientific enquiry per term.

Pupils are made aware of the school's science principles and reflect on them at the end of each lesson. This is recorded in each pupil's toolkit.

Ongoing assessment will help teachers to make decisions about next steps for pupils.

Questions not only of an enquiry nature will be encouraged at all times. Opportunities will be given for pupils to find their own answers through using scientific enquiry.

Following the marking policy, the level of support given will be clearly indicated.

Each term, teachers will pass on their whole-class set of books for scrutiny by the Science subject lead.



Implementation

Practical resources will be used to aid pupils, who may prefer a visual, auditory or kinaesthetic approach to their learning.

Pupils who are ready to learn will be focused, engaged and enthusiastic!

Mistakes will be encouraged within a 'growth mind-set'. Adults will encourage risk taking and support pupils to find their own answers.

All photographs will be accompanied by a written explanation by pupils.

Unless working in a specific group, only photographs of the pupil should be recorded in their book.



Impact

First-hand experiences, including visits from relevant scientific experts.

A mixture of individual, group and whole-class teaching.

Planned and appropriate groupings of pupils for tasks. In this we will be aware of the requirements of children with Special Educational Needs and expected outcomes will differ according to these needs.

We aim to use good oral techniques to set the scene and to explain tasks to the whole class or to a group.

We will provide opportunities for children to raise questions about their tasks or activities and for the teacher to listen to the pupils.

Use of visual aids

Use of Information Technology

Use of scientific resources to aid enquiry work and understanding of scientific concepts.

We will, through skilful questioning, encourage the children to think and use knowledge already required.

Close observation of children's work and of children at work to help with assessment and regular monitoring of children's progress.

Use of science working walls to promote pupils' retention of scientific vocabulary and to chart the learning journey of a particular topic.

Whole school science events e.g. Celebration of British Science Week Assemblies, STEM activities ...



Long Term Plan

This focuses on a strategic overview of the year. Providing a forward vision focusing on broad progression of skills from EYFS to Year 6.

Science Long Term Plan 2024 – 2025

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Science Week
Understanding the World Reception	Are all families the same?	Which season is it?	How have toys changed?	What comes from an egg?	Where does our rubbish go?	Where does our food come from?	Spring 2
	Labelling body parts Learn about the process of growing Five senses	Nocturnal animals Light sources Creating shadows Looking at which materials block out light	Materials Looking at different materials and whether they can be recycled. Learn the basic properties of materials	Lifecycle of an animal (chicken) How do eggs hatch?	Floating and sinking Can we make a boat that floats to help Clem and the crab?	Farm to fork – where does our food come from and how does it grow? Planting seeds Taking care of plants Labelling plants Grow our own vegetables	
	Seasonal changes ongoing throughout the year						
Year 1	Animals including humans/Living things and their habitats	Materials Everyday materials and their properties	Animals including humans/Living things and their habitats	Plants Deciduous and evergreen trees	Materials Everyday materials and their properties	Plants	Spring 2
	Seasonal changes ongoing throughout the year						
Year 2	Catch up curriculum	Materials Everyday materials and their properties	Animals including humans/Living things and their habitats	Plants	Materials Everyday materials and their properties	Plants	Spring 2

Click here to view our long term plan for this academic year



Long Term Plan

This focuses on a strategic overview of the year. Providing a forward vision focusing on broad progression of skills from EYFS to Year 6.

Year 3	Rocks	Light	Forces and Magnets	Animals including humans	Plants		Spring 2
Year 4	Animals including humans	Sound	States of matter	Electricity	Living things		Spring 2
Year 5	Animals including humans	Properties of matter	Space	Forces	Living things and their habitats		Spring 2
Year 6	Animals including humans	Evolution and Inheritance	Electricity	Light	Living things and their habitats		Spring 2

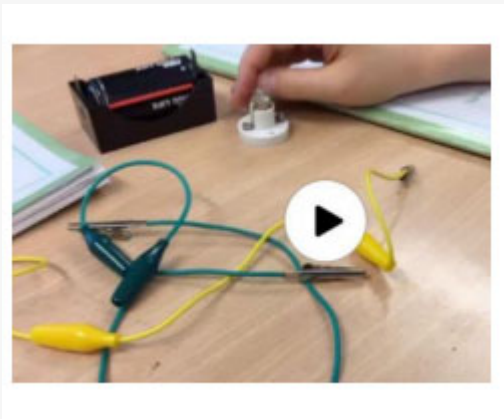
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Cultural Capital

Cultural capital, broadly, is about the values, knowledge, skills, and ideas that are valued in a given culture, society, or social group.

We have visited Longford Park to identify deciduous and evergreen trees.



Use of Technology

During Science lessons technology can be utilised in different ways:

Accessibility - It can be used a tool to make science more accessible to a variety of learners.

Exploration - It can be used to immerse children in a particular concept.

Research - Children can use technology to help them discover information for themselves.



British Values

Democracy	Rule of Law	Individual Liberty	Tolerance	Mutual Respect
Take the views and opinions of others into account.	Understand the importance of safety rules when working scientifically.	Working independently.	Scientific discoveries have come from other cultures.	Work as a team.
Take turns and instructions from others.	Make choices when planning an Investigation.	Expressing personal opinions during debatable issues.	Religious beliefs often compete with scientific understanding.	Discuss findings.
				Offer support and advice to others.



Pupil Voice

I've enjoyed learning about how babies grow. It helps me to understand when my Mum had a baby.

We do experiments to find things out.

I like to be given a question to find out.

I find Science tricky at times because I have to explain why.

I sometimes wonder: why do things work?
We can find out in science.

I like to work practically.

We made a blood model to explain the different components.

