



## Our Lady of Peace Catholic Primary and Nursery School

**'With Christ in our hearts, together we grow.'**

### **Science at Our Lady of Peace Catholic Primary & Nursery School**

#### **Science Intent**

At Our Lady of Peace Catholic Primary and Nursery School, it is our intention to provide a high quality science education that provides children with the foundations they need to recognise the importance of Science in every aspect of daily life. We give the teaching and learning of Science high prominence.

Our curriculum will enable children to become enquiry based learners collaborating through researching, investigating and evaluating experiences. It will encourage respect for living organisms and for the physical environment.

Teachers will ensure that all children are exposed to high quality teaching and learning experiences. These will hook the children's interest, enabling them to develop a sense of excitement and curiosity about natural phenomena. They will be encouraged to ask questions about the world around them and work scientifically to further their conceptual understanding and scientific knowledge.

Children will be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. It will provide opportunities for the critical evaluation of evidence and rational explanation of scientific phenomena as well as opportunity to apply their mathematical knowledge to their understanding of science, including collecting, presenting and analysing data. Children will be immersed in key scientific vocabulary, which supports in the acquisition of scientific knowledge and understanding.

All children will be provided with a broad and balanced science curriculum which reflects the equality and diversity policies and practice in school.

## Implementation

Science teaching at Our Lady of Peace Catholic Primary and Nursery School is supported by the Rising Stars 'Switched on Science' scheme of work. This provides a coherent and progressive curriculum which covers all aspects and learning objectives of Science teaching as outlined in the DfE programme of study for Science and helps pupils to progress their knowledge, understanding and skills.

Our science topics begin with a question, which encourages learners to think deeply and consider different avenues for further research. They do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They draw simple conclusions and use scientific language to talk and write about what they have found out.

Memorable knowledge and skills have been identified for each of the units to provide progressive acquisition of knowledge. This is supported by the use of subject specific knowledge organisers. Teachers regularly refer to this knowledge and key vocabulary with meanings so that it 'sticks'. This enables children to readily apply knowledge and vocabulary to their written, mathematical and verbal communication of skills



## Topic Map

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Animals including humans  <b>Who am I?</b>	Materials	Everyday Materials  <b>What makes a polar bear a strong animal?</b>	Plants & Animals	Plants, animals, including humans; everyday materials  <b>Minibeasts</b>	Animals, including humans; Everyday materials  <b>Holiday</b>
Year 2	Animals including humans  <b>How can I be healthy?</b>	Materials	Living things and their habitats  <b>Why are animals important in the world?</b>	Plants  <b>Why are plants and important and how can we care for them?</b>	Use of everyday materials  <b>Why are forces important?</b>	Living things and their habitats  <b>How can I care for myself and the world?</b>
Year 3	Animals including humans  <b>How can I keep myself healthy?</b>	Rocks and Soil	Light & Shadow	Forces & Magnets	Plants  <b>How do plants grow?</b>	Plants  <b>How do plants grow and what is their importance in the world?</b>
Year 4	Sound  <b>How do different sounds make me feel?</b>	Electricity  <b>What skills can I use to solve problems?</b>	States of Matter	Animals including humans  <b>Digestive System &amp; Teeth</b>	Living things and their habitats  <b>Where do different animals live?</b>	<b>What skills do I need to solve a problem?</b>
Year 5	Earth and Space  <b>Where in the World Am I?</b>	Properties and changes of materials  <b>How do materials change?</b>	Living things and their habitats  <b>How does life continue and evolve?</b>	Forces	Reversible/Irreversible changes	Animals including humans  <b>How does change affect me?</b>
Year 6	Animals including humans  <b>How can I keep my body and mind healthy?</b>	Living things and their habitats  <b>How do we classify organisms?</b>	Evolution & Inheritance	Light	Electricity	The Titanic

## **Impact**

The successful approach to the teaching of science at Our Lady of Peace Catholic Primary and Nursery School will result in a fun, engaging, high quality science education that provides children with the foundations for understanding the world that they can take with them once they complete their primary education.

Most children at Our Lady of Peace Catholic Primary and Nursery School will:

- Demonstrate a love of science work and an interest in further study and work in this field
- Retain knowledge that is pertinent to Science with a real- life context.
- Be able to question ideas and reflect on knowledge.
- Be able to articulate their understanding of scientific concepts and be able to reason scientifically using rich language linked to science.
- Demonstrate a high love of mathematical skills through their work, organising, recording and interpreting results.
- Work collaboratively and practically to investigate and experiment.
- Achieve age related expectations in Science at the end of their cohort year.

