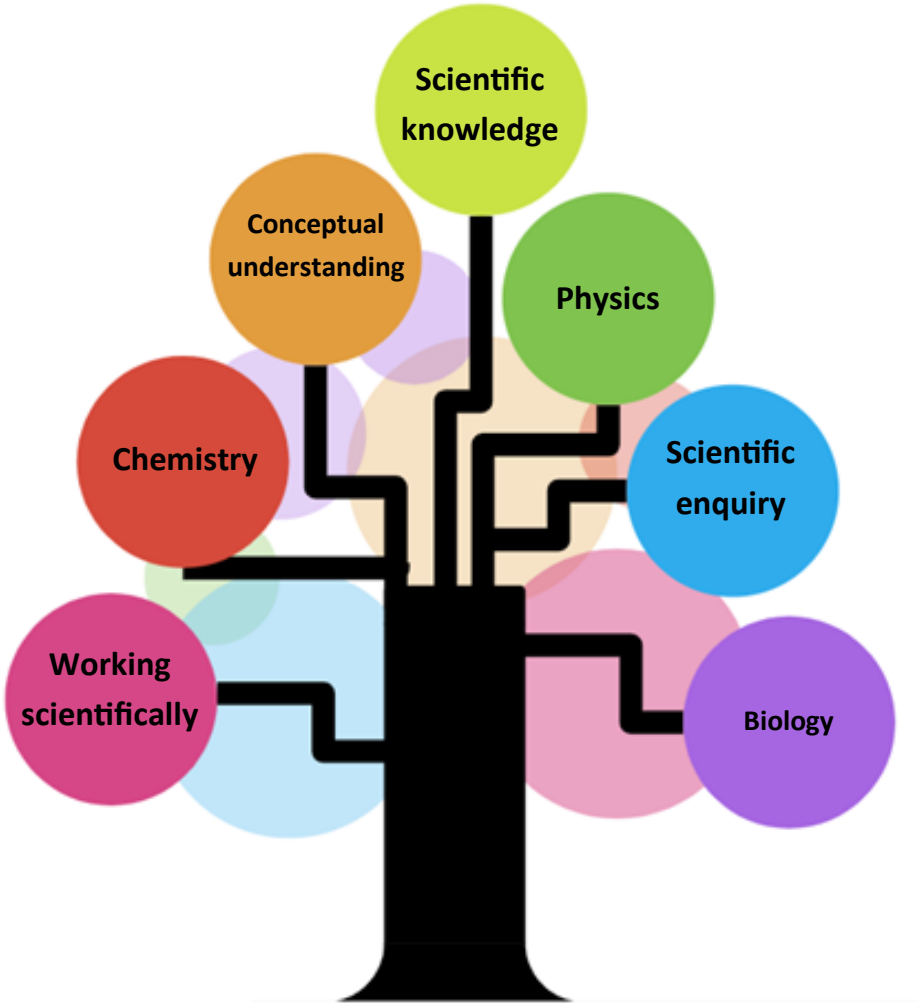
Science : INTENT

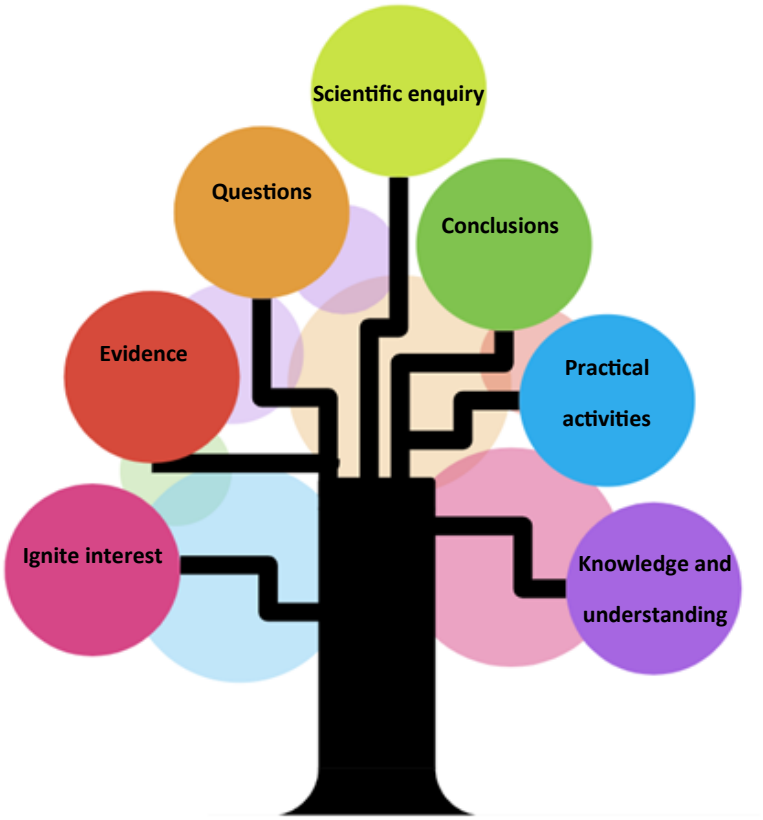


At Ladymount Catholic Primary School, we believe that science provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.
At Ladymount Catholic Primary School, we aim to ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- be equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

We believe that, while it is important that pupils make progress, it is also vitally important that they develop a secure understanding of each key block of knowledge and concepts in order to progress to the next stage. Repetition and revisiting of concepts is built into the curriculum to ensure that it is remembered.
It is important that pupils can articulate concepts clearly and precisely. We believe that the pupils should develop an extended specialist science vocabulary, enabling them to explain concepts using the correct technical terminology.
The pupils will develop their understanding of how scientists work by using a range of types of enquiry to answer relevant scientific questions linked to appropriate science knowledge, and through learning about a diverse range of scientists and their work. The pupils will develop their skills to work like scientists by being taught and developing the working scientifically skills.
The National Curriculum provides a progressive structure and skill development for science to be taught throughout the school. This is linked, where possible, to topic themes to provide an enjoyable, creative scheme of work to enable children to apply and further deepen their learning in meaningful ways.

Science : IMPLEMENTATION



At Ladymount Catholic Primary School, the science curriculum is taught on a two year cycle to ensure there is a complete coverage of the National Curriculum content. Teachers create engaging lessons, often involving high-quality resources to aid understanding of conceptual knowledge. Precise questioning is used in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning, so that all children keep up.

Scientific thinking is encouraged from the earliest opportunity in the EYFS. Exploration of plants, animals and the world around is embedded in our outdoor learning; children play with resources to expose them to scientific concepts that utilise these tools.

In Key Stage 1 and Key Stage 2, specialist vocabulary for topics is taught and built up, and effective questioning to communicate ideas is encouraged. Concepts taught should be reinforced by focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions. We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting and using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.

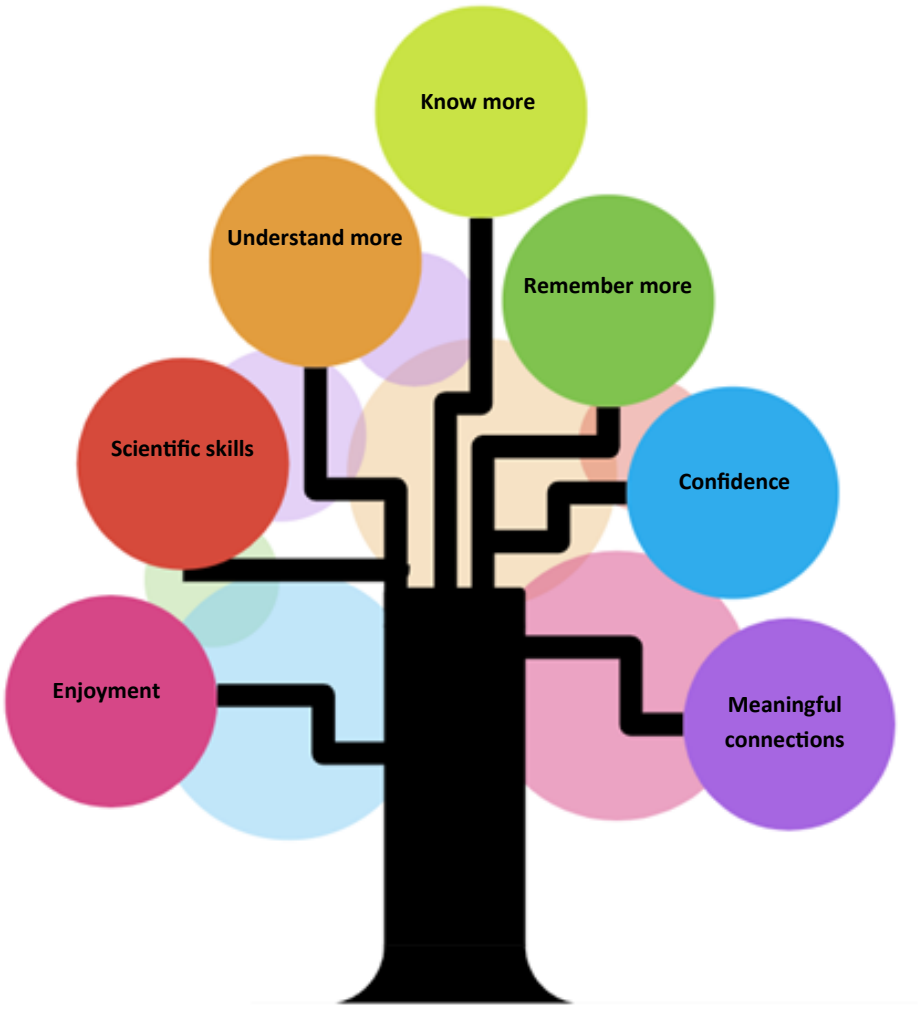
Working scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching.

Science is celebrated in STEM / Science events where classes have the opportunity to conduct experiments and record findings, exploring STEM activities to ignite their interests. This creates excitement and enthusiasm for the subject which hopefully encourages them to think about their further education and future employment.

Teachers will seek and follow health and safety guidance from CLEAPSS/local authority to ensure that they, and their pupils, are safe during practical work. Teachers check equipment before use to ensure it is safe to use. Pupils will be taught to use scientific equipment safely during practical activities.

Visits and visitors are arranged to provide our pupils with first-hand, purposeful experience to support and develop their learning. Where possible teachers plan lessons outside of the classroom in our 'Forest School' environment to build on the children's curiosity of the world around them.

Science : IMPACT



The impact of our science curriculum means that all children at Ladymount Catholic Primary school will:

Know more, understand more and remember more about science.

Have a secure understanding of each key block of knowledge and the concepts covered in their year-group.

Develop the full range of working scientific skills that enable them to work independently

Display confidence and enjoyment in science.

Use and apply their science knowledge and skills across the curriculum, making meaningful connections between subjects.