

## Science

A high-quality science education 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. Here at Central Walker, we are committed to providing children with fun and informative science lessons throughout the school and aim to provide pupils with the opportunity to complete their own scientific investigations.

### **Aims:**

The National Curriculum for science aims 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.
- Are equipped with the scientific knowledge required to understand the use and implications of science, today and for the future.



### **Programmes of Study**

Throughout a child's time at Central Walker, the science curriculum enables them to study different subject areas. The table below provides you with the information about what your child will study during each Key Stage.

<p><b><u>Early Years Foundation Stage</u></b></p>	<ul style="list-style-type: none"> <li>• Understanding the world</li> <li>• Using different materials</li> <li>• Technology</li> </ul>
<p><b><u>Key Stage 1</u></b></p>	<ul style="list-style-type: none"> <li>• Plants</li> <li>• Animals including humans</li> <li>• Habitat and living things</li> <li>• Materials</li> <li>• Seasonal changes</li> </ul>

<p><b><u>Lower Key Stage 2</u></b></p>	<ul style="list-style-type: none"> <li>• Plants</li> <li>• Animals including humans</li> <li>• Habitats and living things</li> <li>• Rocks/States of matter</li> <li>• Light and sound</li> <li>• Electricity</li> <li>• Forces and magnets</li> </ul>
<p><b><u>Upper Key Stage 2</u></b></p>	<ul style="list-style-type: none"> <li>• Animals including humans</li> <li>• Habitats and living things</li> <li>• Earth and space</li> <li>• Electricity</li> <li>• Changes of materials</li> <li>• Evolution and inheritance</li> <li>• Lights</li> <li>• Forces</li> </ul>

Children are also encouraged to develop their ability to work scientifically as outlined by the National Curriculum. These skills are furthered over a child's journey through school as they complete more investigations and increase the ways in which they record their results and observations. This demonstrates a link to maths as children begin to understand the use of graphs in science.

**Assessment**

Assessment in Science is completed by the class teacher through both observations during the lesson and by marking the work children put into their books. Any marking completed in Science is in line with the school's own marking policy.

**STEM**

Another area of science explored at Central Walker is STEM. STEM links science together with technology, maths, engineering and enterprise and allows for a more holistic approach to the subject. Each year every class in the school joins in with STEM week, a whole week dedicated to exploring STEM further. As part of STEM week children are provided with a science day where they get to take part in a range of scientific investigations. The rest of the week is taken up by maths and enterprise activities where each year group designs and makes a product to sell at our annual STEM fair.

**Parents and Carers**

Parents and carers can help encourage a child's science and STEM education progression in various ways:

- Introduce children to science education websites where they can research things that may interest them. Searching 'Science for kids' is a useful way to find appropriate sites.
- Alternatively, adults can use the internet to research science experiments that can be completed at home. Try to make science fun.
- Book series such as *Horrible Science* teach science to children in an age appropriate way.
- Places in Newcastle such as the Discovery museum and Centre for Life are great for educational family days out.
- Parents and carers are welcome to attend the STEM fair each year where they can see what product each year group has made (Details will be provided near the time of the fair.)

