

Christ Church Charnock Richard

C.E. Primary School

*Inspired to learn, grow and flourish within our
Christian family*



Science Policy

Reviewed September 2023

At Christ Church Charnock Richard our core Christian values and ethos define all we do.

Our vision and mission statement underpin our curriculum intent and purpose.

'Inspired to learn, grow and flourish within our Christian family'

Firmly rooted in Philippians 4:13 'I can do all things because Christ gives me strength' which encompasses all we do at Christ Church to develop happy, resilient and confident children who thrive in body, mind and spirit.



We are extremely proud of our curriculum here at Christ Church and we pride ourselves on providing high quality learning that offers challenge and fun. Our enriched curriculum has been developed over three years considering the needs of our children at our school and ensuring that all children are able to thrive.

We believe that relationships are essential to ensure effective teaching and learning and all members of our community invest time in building meaningful relationships with one another. We have high expectations for all and want everyone to be

'Inspired to learn, grow and flourish'.

We provide a broad and balanced curriculum with carefully planned additional learning opportunities to support the personal and social development of our children. In particular we focus on developing the characteristics of confidence persistence getting along organisation and resilience.

As a school community we believe that our curriculum ensures

All children are fluent and effective readers allowing them to read for pleasure and access the wider curriculum.

All children develop efficient mathematical methods and skills to allow them to use and apply these skills in the real world.



Science Policy 2023-24

"The important thing is not to stop questioning."

Albert Einstein (1879 - 1955)

Science is a way of thinking, asking questions and observing the world around us. It is more than simply a body of information and our understanding of how the world around us works is constantly evolving - there is still so much to be explored and discovered.

Every child has an instinctive natural curiosity. At Christ Church Charnock Richard we feed the inquisitive minds of our pupils with the knowledge and skills they require to become confident scientists. Teachers use the available resources to plan a creative and lively science curriculum that builds on children's prior knowledge and prepares them for the next step in their learning journey. In addition to providing children with the theoretical knowledge that underpins each science topic, we will provide opportunities for children to apply their learning and work scientifically in every lesson. Children will also have access to wider learning opportunities, giving them a chance to observe and interact with science in the real world.

Children will leave school with a secure subject knowledge, will be confident when working scientifically and will feel inspired to continue questioning the world around them.

Purposes and Aims

To enable children to:

- Develop scientific knowledge through the key disciplines of biology, chemistry and physics.
- Ask and answer scientific questions.
- Work scientifically by pattern seeking, observing over time, researching, identifying and classifying, fair testing (KS2 only), comparative testing and exploring scientific ideas over time.
- Plan and carry out scientific investigations, using scientific equipment correctly.
- Understand the uses and implications of Science; past, present and future.
- Build upon scientific skills, knowledge and experiences to deepen and enrich their learning as they progress through school.
- Develop positive attitudes to science.

Curriculum

The school uses the National Curriculum Science Programme of Study 2015 as the basis of curriculum planning alongside high quality planning and resources from the Hamilton Trust, the Ogden Trust and the Association of Science Education (ASE).

In the Early Years Foundation Stage, the pupils are taught science through understanding of the world. This involves guiding children to make sense of their physical world and their community through opportunities to explore, observe and find out about people, places, technology and the environment.

Planning

Teachers will follow a **long-term plan**, provided by the Subject Leader, which maps out the topics covered over each term in each key stage. The National Curriculum Programme of Study and ASE planning resources are used to ensure knowledge and skills are built upon as children progress through the year groups.

The **short-term plan** maps out each individual lesson including a specific learning objective, the working scientifically skill covered during the lesson and differentiated learning activities. The subject leader may collect lesson plans for scrutiny and discuss them on an informal basis.

Teaching and Learning

We believe good teaching in science is:

- Children actively involved in exploration and investigation.
- Children working scientifically by pattern seeking, observing over time, researching, identifying and classifying, fair testing (KS2 only), comparative testing and exploring scientific ideas over time.
- Children asking their own questions and answering these by planning and conducting scientific investigations.
- Children choosing their own materials and equipment.
- Children using scientific equipment accurately and effectively.
- Children recording their findings in a variety of ways.
- Children drawing conclusions from their findings.
- Children participating in scientific discussion and group work.

We have presented our vision and principles in a child friendly format which can be found as an appendix to this policy and is also displayed in every classroom.

Displays

Science is a core subject and therefore it is important and expected that each class has a science display related to the topic they are learning about. Displays should clearly show the topic that is being taught, scientific vocabulary and scientific questions that will be explored. In KS1, this display can be replaced with an interactive 'Investigation Station' linked to the current topic.

Links with English and Maths

Many of the books children study in their English lessons have links with the Science Curriculum and children will complete written work to explain or inform an audience of scientific processes and phenomena. In addition, science actively promotes the skills of reading, writing and speaking. The children develop oral skills through discussion and through recounting their observations of scientific experiments. Writing skills are developed through writing reports, findings and projects completed.

Science contributes to the teaching of mathematics in a number of ways. The children use weights and measures and learn to use and apply number. They generate graphs from data collected in tally charts and tables. Through working on investigations they learn to estimate and predict. They develop and use the skills of accurate observation and recording. Numbers are used in many of their answers and conclusions.

Assessment

We carry out two types of assessment in science: formative and summative.

Formative assessment is carried out by teachers during lessons and is ongoing. Summative assessment is used at the end of each topic, when children are assessed against the National Curriculum Year Group objectives. Class teachers assess pupils against these indicating if children are working at age related expectations, below or above. Teachers provide a copy of this data to the subject leader at the end of each topic.

Health and Safety

Class teachers are responsible for the health and safety of pupils when working with scientific equipment. Risk assessments are available to staff and should be adhered to. Safety hazards should be pointed out to pupils at the beginning of each lesson.

Review Date: This policy has been reviewed September 2022 and is due for renewal September 2023.



Science at Charnock Richard CE Primary School



We work like scientists every lesson.

We explore and investigate.

We learn about inventions and scientists.

We learn outdoors.

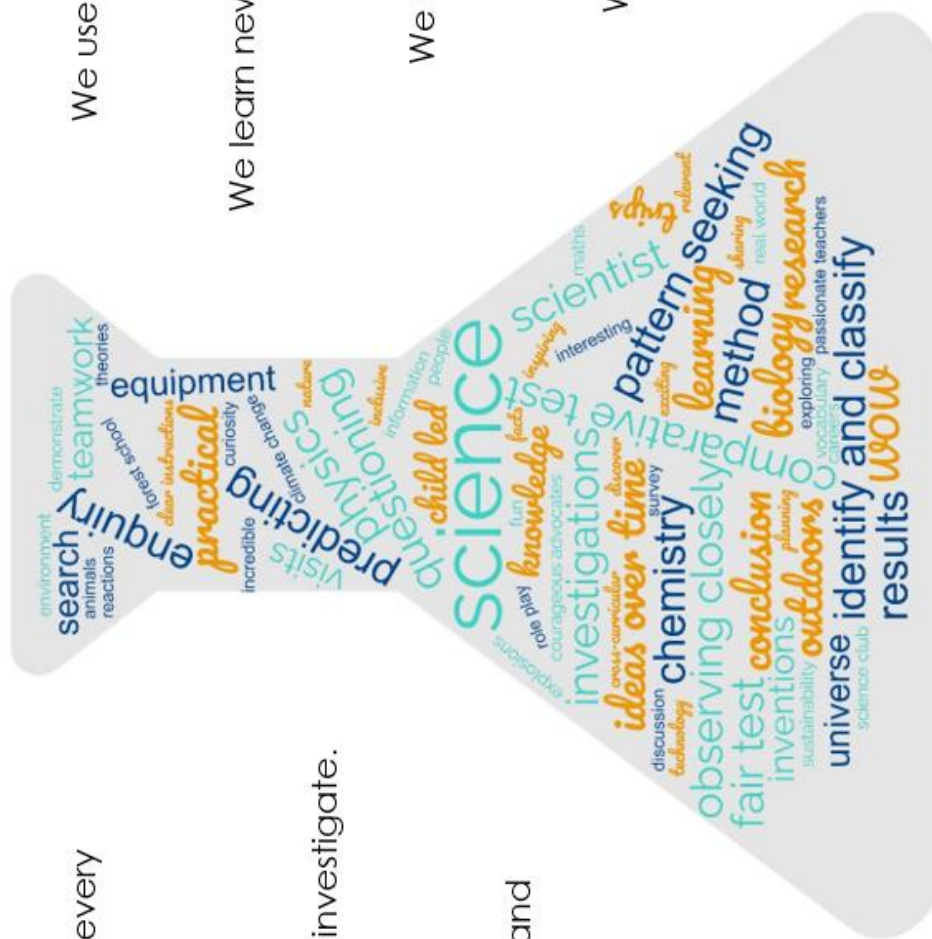
We use scientific equipment.

We learn new vocabulary.

We ask and answer our own questions.

We record our findings in a variety of ways.

We work together.



Children will leave school with a secure subject knowledge, will be confident when working scientifically and will feel inspired to continue questioning the world around them.