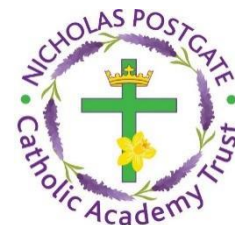




# Christ the King Catholic Primary School

## Science Policy



Our Vision: To provide an outstanding Catholic education with Christ as our light and our guide.

Date	Review date	Coordinator
September 2021	September 2022	Mr Ryan

### Introduction

Science is an engaging topic. It provides children with a curiosity and allows them to explore ways in which their questions can be answered. Children develop their scientific mind as they move through school by applying the progressive working scientifically skills whilst exploring the national curriculum science topics in a creative and well-structured manner. A bespoke curriculum has been designed for Christ the King which ensures all of the statutory objectives are met, with the lessons being taught in an effective sequence, and incorporating a variety of teaching styles to different lessons throughout school to ensure that science is a well taught and enjoyable subject.

### Aims

Our science policy follows the National Curriculum 2014 for science guidelines and aims to ensure that all pupils:

- Develop scientific 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 Scientific enquiries that help them to answer scientific questions about the world around them.
- Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

### Purpose of Study

#### **Why do we teach Science?**

A high-quality science education provides a foundation for understanding the world. Science has changed our lives and is vital to the world's future prosperity. Through building 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 key knowledge and concepts can be used to explain what is occurring, predict how things will behave, and analyse cause. This understanding should be consolidated through their appreciation of applications of science in society and economy.

In teaching science, we are developing in our children:

- A positive attitude towards science and an awareness of its fascination;
- An understanding of science through a process of enquiry and investigation;
- Confidence and competence in scientific knowledge, concepts and skills;
- An ability to reason, predict, think logically and to work systematically and accurately;
- An ability to communicate scientifically;
- The initiative to work both independently and in co-operation with others;
- The ability and meaning to use and apply science across the curriculum and real life.

## Planning

The programmes of study for science are set out year-by-year for Key Stages 1 and 2. We are however, only required to teach the relevant programme of study by the end of the key stage. Within each key stage, we have the flexibility to introduce content earlier or later than set out in the programme of study and may introduce key stage content during an earlier key stage if appropriate.

Teachers will base their planning on the programmes of study for their relevant year groups.

Year	Electricity	Plants	Animals including humans	Everyday materials	Seasonal Changes	Living things and their habitats	Rocks	Light	Forces and magnets	States of matter	Sound	Properties and changes of materials	Earth and Space	Evolution and inheritance
1		√	√	√	√									
2		√	√	√		√								
3		√	√				√	√	√					
4	√		√			√				√	√			
5			√			√			√			√	√	
6	√		√			√		√						√

### Within a planned Science lesson:

- A combination of teaching styles is adopted to suit the needs of all learners;
- Differentiation is evident, effective and support is precisely targeted;
- Teachers and teaching assistants work with specific groups, and actively intervene and support with the learning of these particular children;
- Key vocabulary, learning outcomes, success criteria are shared with the children at the outset;
- Previous conceptual understanding is revisited to ensure a smooth transition into the new understanding;
- Children are hands on, engaged in constant dialogue and play an active part in their learning;
- Staff have the confidence to intervene through effective questioning to challenge or extend children's thought processes.

### Scientific Knowledge and Conceptual Understanding

The programmes of study describe a sequence of knowledge and concepts. While it is important that pupils make progress, it is also vitally important that they develop secure understanding of each key block of knowledge and concepts in order to make progress to the next stage.

Pupils should be able to describe associated processes and key characteristics in common language, but they should also be familiar with, and use, technical terminology accurately and precisely. They should build up an extended specialist vocabulary. They should also apply their mathematical knowledge to their understanding of science, including collecting, presenting and analysing data.

### The Nature, Processes and Methods of Science

'Working Scientifically' specifies the understanding of the nature, processes and methods of science for each year group. It should not be taught as a separate strand.

### Attainment Targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

## Assessment

This is achieved through:

- Discussion with pupils;
- Observation of pupils engaged in activity;
- Marking ongoing written work;
- Dialogue with members of support staff;
- Focussed assessment activities/tests;

## Tracking progress

MarkMate will be used as an ongoing form of assessment where the class teachers assess key objectives for each topic. The assessment grids will provide the teacher with a class overview as well as information on each child and how they are developing their scientific skills and understanding of topics.

## Marking

Teachers mark pupils' work following the school marking policy and specific marking and feedback guidelines for science. Pupils are given appropriate time to respond to misconceptions and errors.

## Inclusion

**Article 29** states that 'Education must develop every child's personality, talents and abilities to the full'.

The teaching of science at Christ the King is fully inclusive. No child is excluded by reason of a learning difficulty, or because they have English as an additional language.

## Resources

- Science resources are stored in a central location.
- Staff share the responsibility of ensuring that resources are well kept and replenished.
- Individual class teachers are responsible for requesting specific resources for individual topics before the start of each term.

## Health and Safety

- Emphasis is given at all times to safe working procedures for staff and pupils.
- A copy of the COSHH guidance 'Be Safe' is centrally located.

## Monitoring and Review

- The monitoring of standards in science is the responsibility of the subject leader and the SLT.
- The work of the subject leader also involves supporting colleagues in the teaching of science, being informed about current developments, and providing subject lead and direction for the school.
- The subject leader will provide a termly report to the named Governor for science to communicate developments, impacts and next steps.

<b>Headteacher:</b>	Helen Lickess	<b>Date:</b>	September 2021
<b>Chair of Governing Body:</b>		<b>Date:</b>	