



The Crescent Primary School Science Policy

Vision

At The Crescent Primary School, science inspires children to be *curious* about the world around them and equips them with the knowledge and skills needed to understand it. Through high-quality science teaching, we encourage children to ask questions, investigate ideas and develop a lifelong love of learning.

Our school values are at the heart of science learning:

Aspire - We encourage children to aim high, challenge their thinking and develop confidence as scientists.

Belong - We promote collaboration, discussion and respect, ensuring every child feels valued and included within the scientific community.

Curious - We nurture children's natural curiosity through questioning, exploration and investigation.

Love - We foster a love of science and an appreciation of the natural world, helping children understand their role in protecting it for future generations.

Science enables children to make sense of the world through observation, investigation and evidence-based reasoning. It prepares them to become informed citizens who can engage thoughtfully with local, national and global scientific issues, including sustainability and climate change.

Aims

At The Crescent Primary School, we aim to develop children's understanding of both:

Substantive Knowledge

The scientific knowledge and concepts that children need to know and remember, including:

Biology

- Plants
- Animals including humans
- Living things and their habitats
- Evolution and inheritance

Chemistry

- Everyday materials
- Uses of materials
- Rocks
- States of matter
- Properties and changes of materials

Physics

- Seasonal changes
- Light
- Forces and magnets
- Sound
- Electricity
- Earth and Space

Climate Science Children explore climate-related themes throughout the curriculum and through dedicated Climate Science units in Key Stage 1 and Key Stage 2. This ensures pupils develop an age-appropriate understanding of environmental responsibility and the changing world around them.

Disciplinary Knowledge

Children learn how scientists work by developing the knowledge, skills and behaviours needed to work scientifically. Through a range of enquiries, pupils learn to:

- Ask scientific questions.
- Make predictions.
- Observe changes over time.
- Identify, classify and group.
- Pattern seek.
- Carry out fair and comparative tests.
- Research using secondary sources.
- Gather, record and interpret data.
- Draw conclusions using evidence.
- Evaluate findings and suggest improvements.

These skills are progressively developed throughout the school to help children think and work as scientists.

Curriculum

Science is taught through the National Curriculum and supported by high-quality resources, including guidance from STEM Learning.

The science curriculum has been carefully designed by the Science Subject Leader to ensure clear progression in both scientific knowledge and working scientifically skills from Reception to Year 6.

Children revisit key concepts throughout their time at school to strengthen understanding and improve long-term retention. Scientific vocabulary is taught explicitly and progressively to enable children to communicate their ideas with increasing accuracy and confidence.

Our curriculum includes the study of a diverse range of influential scientists from different backgrounds, cultures, ethnicities and experiences, helping children to understand that science is for everyone.

Early Years Foundation Stage

In the Early Years Foundation Stage, science is taught through the learning area *Understanding the World*.

Children are encouraged to explore, observe, ask questions and investigate the world around them through practical experiences and play-based learning. Opportunities are provided both indoors and outdoors to develop curiosity and early scientific thinking.

Teaching and Learning

Science is taught through weekly lessons and practical experiences that provide opportunities for children to develop both substantive and disciplinary knowledge.

Teachers use professional judgement to select the most appropriate teaching approaches to meet the needs of their pupils and the intended learning outcomes.

Lessons may include:

- Retrieval of prior learning.
- Questioning and discussion.
- Direct teaching of scientific concepts and vocabulary.
- Practical investigations and enquiries.
- Observation and data collection.
- Analysis and interpretation of results.
- Recording and communicating findings.
- Reflection and evaluation.

Children experience the full range of enquiry types throughout their time at The Crescent Primary School, ensuring they develop a broad understanding of how science works in the real world.

First-hand experiences and practical investigations are prioritised wherever possible to ensure learning is engaging, meaningful and memorable.

Assessment

Assessment is an integral part of every science lesson and informs future teaching.

Teachers assess pupils' understanding through:

- Questioning and discussion.
- Observation of practical work.
- Children's recorded work.
- Retrieval activities.
- End-of-unit assessment opportunities.

Children complete 3L retrieval grids every other week to support memory retention and help teachers identify misconceptions and gaps in knowledge.

Assessment outcomes are recorded in line with the school's assessment procedures.

Marking and feedback are provided in accordance with the whole-school Marking and Feedback Policy.

Inclusion

We believe all children can succeed in science.

Learning is adapted to ensure all pupils, including those with SEND, EAL and those working at greater depth, can access and achieve within the curriculum.

Appropriate scaffolding, challenge and support are provided so that every child can make progress from their individual starting points.

Children demonstrating particular strengths or interests in science are provided with opportunities to deepen and apply their understanding through greater depth challenges and enrichment opportunities.

Health and Safety

Safe practice is an essential aspect of science teaching and learning.

All practical activities are carried out in accordance with the school's health and safety procedures. Teachers ensure appropriate risk assessments are undertaken where

necessary and children are taught to work safely and responsibly during scientific enquiries.

Equality

At The Crescent Primary School, we are committed to ensuring that all pupils have equal access to a high-quality science education.

Science teaching reflects diverse scientists and scientific contributions from a range of cultures, backgrounds and experiences. We actively promote inclusion and challenge stereotypes so that all children can see themselves as scientists and recognise the value of scientific discovery in improving lives.