

Curriculum Intent

At Kirkby CE Primary School, we believe deeply in the importance of helping our pupils develop as a whole person – happy and ready to take the next steps into their education and lives beyond primary school, regardless of their starting point. We celebrate our difference.

Our aim is to create an exciting, interesting set of activities that are underpinned by the knowledge, skills and understanding relevant for each year group.

Science will promote and foster confidence, independence, co-operation and self-esteem throughout the time the children are at Kirkby CE Primary School, which will prepare them for life in 21st Century Britain.

Our offer is underpinned by our vision and ethos of ‘Building on a tradition of achievement and values in a caring environment’. We want all of our children at Kirkby CE to leave with a range of experiences, the self-belief to excel and to understand the feeling of enjoyment.

The primary purpose of our curriculum is to guarantee a successful learning experience for every child. With this in mind, we are committed to ensuring that every child is developed to their full potential within science.

- Every child will be educated to the highest possible standard, as set by the Department for Education.
- Every child, in every lesson, will be provided with opportunities to: be engaged in, challenged and process their learning.
- Every child will be provided with opportunities to increase their self-esteem, motivation and aspirations.
- Every child will be encouraged to be enterprising, creative and resilient in order that they may succeed in an ever-changing world.
- Every child will be provided with opportunities to experience the wider world as a core part of their curriculum.
- Every child will be taught about budgeting and financial management in order that they may succeed in an increasingly unpredictable financial world.

Our daily assessments and timely feedback, enables teachers and pupils always know exactly how much progress they are making and where they may need more help.

Our clear curriculum overviews and medium term plans are designed to:

- Develop strong characters in order to be resilient and cope with adversity.
- Develop creative individuals who collaborate and co-operate and can solve problems seeing failure as an opportunity to learn.
- Develop pupils who can think critically and care about their learning so they always do their best.
- Develop pupils who care about their role as part of a family, community and the wider world; encouraging them to feel part of, and to contribute positively to fundamental British values.
- Ensure all pupils have high aspirations.
- Develop a thirst for learning for all pupils

Planning and Teaching

We want all of our children at Kirkby CE to leave with a range of experiences, the self-belief to excel and to understand the feeling of enjoyment.

Our curriculum is carefully crafted so that our children develop their academic, social and cultural capital.

White Rose Science scheme is used as a basis for teacher’s planning, maintaining a continuity and progression across the school.

Teachers use carefully chosen experiences to enhance the subject taught.

Based on our knowledge of the National Curriculum 2014, we have broken down the programmes of study into a series of skills and knowledge and our long term curriculum plans show how at Kirkby CE we intend to cover the

fundamental concepts of science. This includes the building of knowledge, the use of correct vocabulary and application in familiar related contexts, including a range of enquiries.

We recognise children's prior learning, encourage the children to develop interpersonal skills, build resilience and become creative, critical thinkers. Children are supported to achieve their potential and progress with confidence to the next phase of their education.

Our approach to teaching and learning supports our curriculum by ensuring that lessons build on prior learning and provide opportunities for guided and independent practice. The development of children's knowledge and skills across all primary subjects is key when building on prior learning, this supports pupils for the next stage of their learning.

Aims and objectives in Science

At Kirkby CE, we recognise the importance of Science in every aspect of daily life. As one of the core subjects taught in Primary Schools, we give the teaching and learning of Science the prominence it requires.

The Scientific area of learning is concerned with increasing pupils' knowledge and understanding of our world, and with developing skills associated with Science as a process of enquiry. It will develop the natural curiosity of the child, encourage respect for living organisms and the physical environment and provide opportunities for critical evaluation of evidence.

At Kirkby CE, in conjunction with the aims of the National Curriculum, our Science teaching offers opportunities for children to:

- 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.
- develop the essential scientific enquiry skills to deepen their scientific knowledge.
- Use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including I.C.T., diagrams, graphs and charts.
- Develop a respect for the materials and equipment they handle with regard to their own, and other children's safety.
- Develop an enthusiasm and enjoyment of scientific learning and discovery.

Children have weekly lessons in Science throughout Key Stage 1 and 2, using White Rose Science programmes of study and resources. In Early years, science is taught through the children learning about the world around them in their learning through play. Additional opportunities are provided in Science during educational visits linked to the science curriculum.

Resources

All specialised science resources are kept in the general stock cupboard. It is the responsibility of the teachers to return the resources in good condition as soon as they have finished with them. The science lead will replenish stocks as requested.

Health and Safety

In their planning of activities, teachers will anticipate likely safety issues. They will also explain the reason for safety measures and discuss any implications with the children. Children will always be encouraged to consider safety for themselves, others and the environment and the resources they use, when undertaking science activities.

The following considerations are carried out to safeguard children from being put to unnecessary risk.

- All practical equipment are kept in good condition stored safely and well-organised

- Appropriate tools are introduced with care and children are supervised at all times
- Plastic containers are used for water rather than glass
- Floor spillages are cleared up immediately
- Care is taken when new items are purchased to ensure they are suitable for young children
- Children are aware of the skills needed when handling materials

Before undertaking any practical activity that may pose a hazard to staff or pupils a full risk assessment will be undertaken. It is the responsibility of the class teacher leading the activity to ensure that this is undertaken.

Any off-site visit will be conducted in line with school policy and the relevant risk assessments completed. Risk Assessments for off-site visits are held in the school office. Teachers are required to 'tick' the risks relevant to their trip.

Assessment

Assessment in science is used to inform planning and facilitate differentiation. The assessment of children's work is on-going to ensure that understanding is being achieved and that progress is being made. Afl is used to offer clear feedback and improve a child's involvement and progress.

At the end of each topic the White Rose Science End of Block assessment is carried out to assess the progress of each child. Teachers complete the tracking assessment sheet on i-track, stating if each child is working below, towards, at or above the age expected standard.

Monitoring

The Subject Leader will monitor progress according to the monitoring timetable. Subject leaders are expected to monitor in the following way over the course of the academic year:

- Learning walks;
- Pupil conferencing;
- Book scrutiny including learning logs;
- Planning scrutiny.
- Lesson drop ins

Adequate notice should be given and provide a clear focus for any activity that is due to be undertaken. The outcomes of any monitoring activity is feedback to the SLT and staff through the relevant meetings.

Staff Development

Staff CPD within science is linked to the school development plan. If a member of staff asks for support then the subject leader can offer this themselves through coaching and mentoring or will find a suitable course for that teacher to attend (subject to SLT approval and budget). Subject leaders may also lead parts of INSET days and staff meetings to 'cascade' information through the school or to train all staff in a particular area.

Equality

Please refer to the school's equal opportunities policy for further information.

All pupils have equal rights to access learning opportunities across the whole curriculum irrespective of ethnicity, religion, gender, disability or social circumstances. A wide variety of strategies can be used to ensure that teaching meets the needs of different groups of pupils. These include:

- Differentiating lessons (through use of resources, tasks, level of support, outcome);

- Using a range of teaching styles to match the range of learning styles represented in a typical class;
- Ensuring the classroom environment is safe and secure and accessible for all.

Policy was compiled by Jenny Dwyer (Science Subject Lead)

Date of Policy: September 2026

Date of Review: September 2027