



SCIENCE POLICY

**This policy was last revised and adapted by the Governing Board in
September 2022**

**After each revision the policy is circulated to all Governors, school staff
and displayed in the staff room and on the school website.**

The policy is to be reviewed by the Governing Board in: 2025

September 2022

School Mission Statement:

Jarrow Cross Church of England Primary School provides a caring, Christian environment where EVERYONE is welcome and given the opportunity to develop their full potential.

Introduction:

At Jarrow Cross Church of England Primary School, we understand the curriculum to be all of the learning and other experiences that we plan for our pupils. We aim to make this a broad, balanced, inclusive, creative and progressive curriculum that will allow our pupils to achieve their full potential and prepare them for life after the primary school.

Aims:

Science is a core subject within the National Curriculum. The aims of teaching Science at Jarrow Cross Church of England Primary School are consistent with our mission statement and take account of the National Curriculum Non-Statutory Guidance for Science.

The aims of Science at Jarrow Cross Church of England Primary School are:

- To enable children to develop their knowledge and understanding of the world they live in, through observation and investigation of the natural world.
- To provide a Science curriculum which is broad, balanced, relevant, differentiated and enriched with out of school experiences.
- To fulfil the requirements of the National Curriculum for Science.
- To ensure the progressive development of scientific concepts, knowledge, skills and attitudes (see later).
- To enable children to work scientifically in a range of appropriate contexts using a wide variety of materials and equipment and access to STEM learning.
- To promote positive attitudes towards, and enthusiasm for, Science work in school.

Work in Science follows the structure of the National Curriculum. It is divided into Key Stages and organised into levels of increasing challenge. It is expected that most children will be secure or working with mastery by the end of each year.

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Objectives:

The objectives for Science at Jarrow Cross Church of England Primary School are:

- To provide a balanced range of scientific activities as an integral part of the whole school curriculum.
- To ensure continuity and progression in Science work from Foundation Stage to Year 6 by means of careful, structured planning.
- To incorporate opportunities to develop basic scientific skills, attitudes and knowledge appropriate to the development of the child.
- To provide opportunities for children to acquire, practice and develop scientific skills and strategies through a carefully structured activity based programme centred on working scientifically.
- To provide flexible ways of working including class, group and individual.
- To provide opportunities for children and staff to share and develop ideas and respect each other's views.
- To develop children's natural curiosity about themselves and their world and use this to foster positive attitudes to scientific learning.
- To provide first-hand experiences which help children to understand themselves and the world they live in.
- To build upon the experiences children bring to science and develop them in a wide range of contexts, including the wider world.
- To build up children's confidence and competence when working in Science
- To encourage children to work in an independent way and develop their own research skills.

In the teaching and learning of Science we can identify a number of subject-specific areas of knowledge, skills/processes and attitudes.

Time allocation:

Class teachers, Science Co-ordinator and SMT, endeavour to ensure that the subject is adequately represented in terms of the overall timetable in each class. The whole school annual topic plans are devised to ensure that Science has the correct amount of teaching time allocated to it within any one year and within each Key Stage.

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Organisation:

In order to achieve our aims, the teaching of Science at Jarrow Cross Church of England Primary School is approached in a structured way throughout the school within each Key Stage and in each Year group.

The various topics for each year group are organised in the form of annual topic plans. These plans are devised to ensure full coverage of the National Curriculum throughout the school.

Class teachers are responsible for their own class organisation and teaching style while ensuring these compliment and reflect the overall aims and philosophy of the school. Children are given the opportunity to work as a class, as individuals and as part of a group. There are occasions when whole class activities are appropriate as when introducing a new topic or the introduction of activities leading to further group work or when an activity generates so much excitement and enthusiasm it is impossible to work with only one group at a time. Group work eases the pressure on resources as there is an opportunity to share with other classes. This style also offers the children opportunities to work together, sharing ideas and offering suggestions. Groups in Science may be organised by ability (mixed or similar ability), age, friendship or other criteria. Group work is organised to promote co-operation and effective learning and understanding. Every effort is made to ensure that work is carefully differentiated and matched to each group.

Planning:

In Foundation Stage, Science is taught as part of a topic, where it is sometimes the primary focus or it may be taught, as a supplementary subject in a topic, which has another curriculum area as its focus. Throughout both Key Stages, science topics have been distributed, where possible, to link in with the topic being studied to ensure a cross-curricular approach is adopted. Pupils address the desirable learning outcome relating to Knowledge and Understanding of the world through scientific investigation.

Planning and evaluation is incorporated into Year Group weekly and half-termly planning which also ensures that classes within a year group cover the

same areas of work. Whole school planning and evaluation takes place annually during a whole school staff meeting in order to implement any necessary changes. Learning activities are sequenced to ensure continuity and progression. Learning may be by means of direct teaching to the class or small groups; by providing direct hands - on experience with Science equipment and resources; by teacher prepared materials and by practical tasks. Wherever possible and appropriate, learning should be outdoors, in the natural world and educational visits included in a Science topic, making use of locations accessible to school.

People with an expertise or interest in a particular Science topic may be invited into school to work with children. Such visitors may include parents or other family members, local health service workers and representatives of service companies and STEM Ambassadors.

Assessment, Recording and Reporting:

Prior to undertaking the study of a module of work, pupils are informally assessed and weaknesses in understanding are used to inform subsequent planning and delivery of the unit in order to maximise the potential for learning. Assessment is ongoing. At the front of each child's Science Book there is a proforma which covers the objectives for the science taught in that particular year group. Class Teachers identify on the proforma if the child has an emerging, developing, secure or in some cases mastery understanding of that particular objective. In the back of the child's Science Book there is a checklist to guide and monitor the opportunities for working scientifically. As stated previously National Expectation is for children to be secure or working at a mastery level in all objectives by the end their school year.

Equal Opportunities:

All teaching and non - teaching staff at Jarrow Cross Church of England Primary School are responsible for ensuring that all pupils, irrespective of gender, ability, ethnicity and social circumstances, have access to the whole curriculum and opportunities to make the greatest progress possible in all areas of the curriculum while in our school.

All children in all Year Groups and in both Key Stages have an equal opportunity to undertake all aspects of work in Science and have equal access to Science based teaching and learning throughout the school. The

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relative performance of boys and girls is monitored in analysis of pupil performance in statutory end of Key Stage assessments.

The use of ICT:

Some adventure game / simulation activities resources for ICT which fit into Science based topic are available. Television and radio programmes are also available. These are usually pre - recorded by class teachers and used when appropriate with the children. Resources are also available on espresso. All pupils and staff will follow guidelines set out in the e safety policy.

Cross Curricular:

At Jarrow Cross Church of England Primary school, work in Science supports and reinforces work in other areas. Units have been distributed to year groups, where possible, to complement other topics being studied, encouraging a creative approach is adopted and giving pupils opportunities to relate their scientific learning and investigations to real-life situations.

Resources:

A wide variety of Science resources are available in school. These include children's reference books, teachers' resource books and notes, Science materials and equipment and DVD's. A range of pictorial resources such as posters, pictures and photographs are available. Resources are shared and all staff, including visiting students, have equal access to all resources.

The majority of Science materials and equipment are kept in the Science resource cupboard which is only accessible to members of school staff and to students/volunteers under teacher guidance. Children should NOT enter the Science resource cupboard to remove or replace resources at any time.

Policy reviewed by Governing Body 2022