



## Science Policy

2016-17

**Selby Community Primary School Science Policy 2016-17**

**Subject Leaders:**

Tom Wriglesworth and Louisa Currie

### Vision

Science is a highly valued area of the curriculum at Selby Community Primary School and is taught in line with the new National Curriculum. Through Science we aim to develop curiosity, enjoyment, skills and a growing understanding of scientific knowledge in all of our pupils by allowing them to raise questions and investigate the world in which they live. As a result, children gain a solid scientific knowledge and understanding as well as developing the skills necessary for testing and investigating.

### What is Science?

Through the study of: Physics, Biology and Chemistry, Science is the beginnings of understanding the world around us. Science helps children to explain what is occurring, predict how things will behave, and analyse causes.

*'Science has changed our lives and is vital to the world's future prosperity.'*

### Aims

The aims of teaching Science at Selby CP are:

- To develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- To 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
- To equip with the scientific knowledge required to understand the uses and implications of science, today and for the future.

### Working Scientifically

Working scientifically specifies the understanding of the nature, processes and methods of Science and underpins the teaching of Science. Working scientifically skills are embedded into the curriculum through the following lines of enquiry:

- **observing over time**
- **pattern seeking**
- **identifying**
- **classifying and grouping**
- **comparative and fair testing (controlled investigations)**
- **researching using secondary sources.**

### Curriculum and Cross curricular links

All national curriculum elements are taught through cross curricular, over-arching topic titles. Each half term/term the year group has one topic, around which, where possible, all subjects are related (including SMSC and British Values, ideas for which are visible on Medium term plans). This topic drives the rest of the curriculum and where possible links with Science have been made. In particular, key links with Computing, Maths, Geography and English have been embedded into the Science curriculum.

### Speaking and listening

At Selby CP we believe that speaking and listening is a key factor in developing children's scientific vocabulary and articulation of clear and precise scientific concepts. Speaking and listening is encouraged and assisted in every lesson to encourage children to make their thinking clear, both to themselves and others. Teachers also ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions. Through the use of story maps and agreed actions for high frequency scientific vocabulary, the children consolidate learning and understanding of specific areas in science. At Selby, the use of 'sentence stems' are used to encourage a richer scientific vocabulary, which is then utilised within both oral and written work.

### Inclusion and equal opportunities

Teachers should aim to give every pupil the opportunity to experience success in learning and to achieve as high a standard as possible to fulfil their potential in the following ways:

- To use medium term plans (progress ladders) to prepare classroom activities to challenge and involve all pupils
- To be aware about different learning styles and the need to allow pupils to be able to work in their preferred learning styles for some of the time
- To use materials for teaching which avoid stereo typing, and bias towards race, gender, role or disability
- To deal with such issues clearly and sensitively if they arise
- Provide learning opportunities for higher attaining (Mastery) pupils that not only extend their knowledge, but deepen their existing understanding
- Adapt work, including lines of scientific enquiry appropriately so that SEND children are able to access the concepts and ideas covered, considering alternative methods of recording

### Resources

All resources have been listed on Medium Term Plans and linked specifically to individual lessons. A generic stock of equipment (in particular equipment for lines of enquiry) is stored in the Science section of the resource Cupboard and Science/Maths cupboard at the back of the Year 6 classroom, and can be accessed when necessary. If you have any questions or requests for additional resources, please see Subject co-ordinator (Tom Wriglesworth and Louisa Currie).

### Assessment

Teachers at Selby CP record their respective class' summative assessment termly on the school's O-Track site. Teachers then use the summative assessments to inform planning. Tom Wriglesworth and Louisa Currie are trialling summative assessment tests in Y3 & 6, with a view to roll out across KS1 and 2. Ongoing evidence is placed in Science big book.

### Recording of work and marking

Children are expected to have one piece of work per week in their Science books per week, which focuses on the key content of the Science topic. There should also be

regular evidence of how the working scientifically skills are being embedded into the curriculum. This can and should be recorded through a variety of means such as:

- Written work
- Photographs
- Explanations of activities
- Presentations
- Project work

Where appropriate this work should be marked, following the school's marking policy, and including a next step question to deepen children's understanding of the subject.

### The role of the Leader

The role of the Science Leader is to:

- To co-ordinate the teaching of Science within the school
- To monitor the use of the policy and medium term plans
- To ensure continuity and progression of teaching and learning throughout the school
- To arrange in-service support, advice and assistance to staff after learning walks and book scrutiny
- To order and maintain resources for in use in each year group
- To provide an action plan, linked to the school's SDP to improve progress and attainment in the subjects
- To support staff and inform them of courses and developments in Science via coaching and CPD
- To liaise with other leaders when necessary

Reviewed:

To be reviewed: