



# **Science Policy**

(January 2020)

## **SCIENCE POLICY**

### **Vision Statement**

In Raynham, Science stimulates and excites pupil's curiosity about natural phenomena and events in the world around them. Pupils understand how major scientific ideas contribute toward technological change – impacting on industry, medicine, business and improving quality of life. They learn to question and discuss science based issues that may affect their own lives, the directions of society and the future of the world, encouraging and supporting the development of Science capital.

This knowledge base of Science has a practical application to everyday experiences and is therefore important for pupil's social development. By working scientifically, through tailored investigations involving planning, testing, recording and analysing results, students come to appreciate the nature of the learning process.

All teachers, design and plan activities providing opportunities for students to display and to develop and apply their creative and imaginative capacities in Science. These activities also enable them to experience an ongoing sense of success in their teaching and learning which are transferable to other subjects.

#### **Aims:**

The National Curriculum for Science aims to ensure that all pupils:

- Develop scientific knowledge and conceptual understanding through the specific disciplines.
- 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
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future

As well as these, Raynham Primary School aims to:

- Enable pupils to make decisions about the uses and values of scientific work and achievements
- Enable pupils to develop an understanding and respect for the natural world
- Enable pupils to question, hypothesise, test and discover for themselves about our world.
- Develop the skills required to investigate the world around them.

#### **Leadership and Management Roles**

The Science co-ordinators are responsible for ensuring that the aims of the Science Policy are met. In addition to this, the science co-ordinators should:

- Be enthusiastic about Science and demonstrate good practice

- Encourage and support staff in the implementation of the curriculum and school approaches to Science teaching
- Co-ordinate assessment procedures and record keeping to ensure progression and development throughout the school
- Monitor the teaching and learning of Science throughout the school
- Bid for funding to maintain resources
- Organise and review all science-based resources, ensuring they are readily available and maintained.
- Support staff by encouraging the sharing of ideas and organising in-service training as appropriate

### **Equal Opportunities and Inclusion**

All children have equal access to the full Science programme of study that satisfies the National Curriculum 2014 requirements. It is important for all children to experience a range of scientific activities in ways that are appropriate to their needs and abilities. Special provision is made in exceptional cases.

### **Science in EYFS**

Play underpins the delivery of all the EYFS. In playing, children behave in different ways: sometimes within their play, they may describe and discuss what they are doing and sometimes they may be more reflective and quiet as they play. Within a secure and challenging environment with effective support, children can explore, develop and experiment as they play to help them make sense of the world. The EYFS strand 'Understanding the World' leads directly to scientific elements of the curriculum and leads to more formalised Science learning in KS1 and then KS2.

### **Planning**

Science is taught in a cross curricular manner, where possible, and integrated into classes ongoing 'topic' work to provide more contextual and meaningful learning experiences.

- English – opportunities to write for varied purposes, with the characteristics of different kinds of writing. For example, chronological reports, recounts, balance arguments and note taking
- Mathematics – developing skills in data handling, measurements and mathematical relationships
- Art – understanding of materials and their properties, designing and creating own inventions
- Geography – exploring physical processes
- History – researching Scientist, their discoveries and the impact in today's society
- IT – data handling and research
- PSHE – health and safety education

The areas of study are outlined by the National Curriculum and these have been divided and allocated to Year groups, with specific content to cover. These are outlined on a long term plan, allowing an overview of the progression of Science teaching throughout the school.

At Raynham Primary School, teachers use a range of schemes and resources to plan for Science, ensuring we deliver the full range of the Primary National Curriculum 2014.

The Collins 'Snap Science' is the main scheme of work being used across the school to support teachers planning of Science. However, also in line with our cross curricular and creative theme approach, 'ASE' resources are also being used.

Activities should be planned to meet the needs of all pupils. Differentiation is achieved through careful planning an organisation. Learners should be supported and challenged to progress within Science.

Differentiation enables all students to engage in the curriculum by providing learning tasks and activities that are tailored to their needs and abilities.

Raynham Primary School looks to integrate practical Science in almost every lesson, making learning engaging and fun. Children should be encouraged to predict, hypothesise, collect evidence, analyse and question the results they gather and evaluate what they have learnt. Pupils are encouraged to work in groups or individually where appropriate. In group work, children are given a role to fulfil, in order to give their own work a purpose and a focus. They use a variety of means for communicating and recording their work.

### **Assessment**

Teachers will assess children's Science work in a variety of ways to ensure they gain a full understanding of what each child has learnt, and what is needed to progress their understanding. Teachers will observe, provide written and oral feedback.

Teachers will use the statements on classroom monitor assessment system to support them to make an overall judgement of children's scientific ability.

Progression in science is discussed in pupil progress meetings and relevant targets and actions are considered. In addition, teacher assessments are recorded in Scholar Pack as part of KS1 and KS2 SAT's data, which is reported to parents and the Local Authority.

### **Recording in Science**

The way in which Science is recorded will vary across the school depending on age and ability. Teachers should ensure that a range of appropriate methods are used.

These may include:

- Written accounts including: instructions, reports and explanations
- Diagrams, drawings and pictures
- Annotated diagrams
- Spreadsheets (data collection)
- Charts, graphs and tables
- Model making
- Title pages as introduction of each topic

### **Safe Practice**

Children are encouraged to consider their own safety and the safety of others at all times. Teachers will provide a safe and secure environment for children to learn.

Any experiments or trips which are considered a particular risk will need a Risk Assessment Form to be completed and to consult the Science Co-ordinators and relevant SLT members prior.

School is supported by CLEAPSS

### **Achievement in Science**

Achievement in science is celebrated by:

- Displaying work
- Communicating findings in class to others.
- Presenting of achievement certificates in achievement assembly.
- Entering the Primary Engineering Competition.
- STEAM Festivals
- Celebrating the British Science Week

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