

# WALDRINGFIELD PRIMARY SCHOOL



## Science Policy

## **Aims**

- Develop an enquiring mind and a scientific approach to problems.
- Develop basic concepts and logical thinking.
- Develop interests, attitudes and aesthetic awareness.
- Acquisition of knowledge and learning skills.
- Pose questions and devise and carry out investigations to answer them.
- Interpret findings critically.
- Appreciate patterns and relationships.
- Communicate findings.

## **National Curriculum Attainment Targets/Programmes of Study**

These detail four attainment areas:

1. Experimental and Investigative Science.
2. Life Processes and Living Things.
3. Materials and their Properties.
4. Physical Processes.

The requirements listed below apply across the four attainment targets:

- Systematic enquiry.
- Science in everyday life.
- The nature of scientific ideas.
- Communication.
- Health and safety.

## **Creative Curriculum**

As part of our Creative Curriculum, science units should be embedded into the theme where appropriate.

The backbone to our Creative Curriculum will be the '5Rs of Learning':

- Readiness
- Resourcefulness
- Resilience
- Responsibility
- Reflection.

Children will be encouraged to approach their work using the 5Rs so that the school can achieve our main aims, namely to equip each of our children with the skills required to be an independent and responsible citizen who will continue learning effectively throughout their lives.

## **Science through the curriculum**

### **Use of ICT**

Pupils will be given opportunities to support their work by being taught to:

- find things out from a variety of sources, selecting and synthesising the information to meet their needs and developing an ability to question its accuracy, bias and plausibility
- develop their ideas using ICT tools to amend and refine their work and enhance its quality and accuracy
- exchange and share information, both directly and through electronic media
- review, modify and evaluate their work, reflecting critically on its quality, as it progresses.

### **Literacy through science**

(i) In writing, pupils will be taught to use correct spelling and punctuation and follow grammatical conventions. They will be taught to organise their writing in logical and coherent forms.

(ii) In speaking, pupils will be taught to use language precisely and cogently. In listening, pupils will be taught to listen to others, and to respond and build on their ideas and views constructively.

(iii) In reading, pupils will be taught strategies to help them read with understanding, to locate and use information, to follow a process or argument and summarise, and to synthesise and adapt what they learn from their reading.

(iv) Pupils will be taught the specialist and technical vocabulary of science and how to spell these words. They will be taught the patterns of language vital to understanding and expression in science. These include the construction of sentences, paragraphs and texts that are often used in science.

### **Maths through Science**

(i) In Science, there are parallels with maths through experience of problem solving, data handling, reading scales, graphs, charts and tables.

### **Assessment**

Assessment will be carried out in the following ways:

- At the end of each term/half term progress will be recorded. End of Unit Assessment sheets from QCA expectations (summative).
- As an on-going process throughout the topic when the opportunity arises (formative). Only against Sc1. Each child has Sc1 levels in science book for ongoing assessment of Progression in Scientific Enquiry (Sc1) sheet.
- In Foundation Stage, recording takes place through the Foundation Stage Profile.

### **Teaching and Learning Styles**

Teachers are expected to employ a range of strategies and use their professional judgement to decide on the most appropriate. These will include:

- demonstration by both teacher and/or other pupils;
- class/group discussion;
- individual/group/paired/collaborative work;
- intervention by the teacher, where appropriate, to reinforce an idea or teach a new point;
- planning activities in order to allow different levels of achievement by pupils or to incorporate possibilities for extension work

## **Equal Opportunities and SEN**

All children should be given the opportunity to learn in a creative and encouraging learning environment which embraces a range of teaching styles. This approach motivates and supports children's learning at all levels including Gifted, Able and Talented, EAL and those identified with a Special Educational Need.

## **Health and Safety**

(i) It should be noted that certain items and materials may not be considered

suitable for classroom use, or may need special preparation (e.g. bones). In such cases the "Be Safe" document should be consulted. A copy of this is in the Health & Safety file, kept by the Headteacher.

(ii) When working with tools, equipment and materials, in practical activities and in different environments, including those that are unfamiliar, pupils should be taught:

- about hazards, risks and risk control;
- to recognise hazards, assess consequent risks and to take steps to control the risks to themselves and others;
- to use information to assess the immediate and cumulative risks;
- to manage their environment to ensure the health and safety of themselves and others;
- to explain the steps they take to control risks.