



# **Wansdyke School**

## **Science Policy**

**Date agreed: 12<sup>th</sup> March 2019**  
**Review Date: March 2020**

---

Science stimulates and excites children's curiosity about the world in which they live. Through practical experiences and ideas, science enables children to develop their knowledge and understanding of their world, and events that take place within it. Encouraging children to look at the world as a scientist develops life-long skills, which can be applied to a variety of situations within their own lives, to issues in society and the future of our world.

### **Aims and Objectives**

In our school we aim to

- To develop pupils' enjoyment and interest in science and an appreciation of its contribution to all aspects of everyday life
- To build on pupils' curiosity and sense of awe of the natural world
- To use a planned range of investigations and practical activities to give pupils a greater understanding of the concepts and knowledge of science
- To introduce pupils to the language and vocabulary of science
- To develop pupils' basic practical skills and their ability to make accurate and appropriate measurements
- To develop pupils' use of computing in their science studies.
- To extend the learning environment for our pupils via our environmental areas and the locality
- To promote a 'healthy lifestyle' in our pupils.

The following objectives derived from the above aims will form the basis of our decisions when planning a scheme of work. Assessment will also be related to these objectives:

- To develop pupils' enjoyment and interest in science and an appreciation of its contribution to all aspects of everyday life.
- To develop a knowledge and appreciation of the contribution made by famous scientists to our knowledge of the world including scientists from different cultures
- To encourage pupils to relate their scientific studies to applications and effects within the real world
- To develop a knowledge of the science contained within the programmes of study of the National Curriculum.

#### *To build on pupils' curiosity and sense of awe of the natural world*

- To develop in pupils a general sense of enquiry which encourages them to question and make suggestions followed by investigating them.
- To encourage pupils to predict the likely outcome of their investigations and practical activities, using their scientific knowledge to support their answers with reasoning.

#### *To use a planned range of investigations and practical activities to give pupils a greater understanding of the concepts and knowledge of science*

- To provide pupils with an opportunity to conduct a range of specific investigations and practical work which gives them a worth-while experience to develop their understanding of science.
- To develop progressively pupils' ability to plan, carry out and evaluate simple scientific investigations and to appreciate the meaning of a 'fair test'.

#### *To develop the ability to record results in an appropriate manner including the use of diagrams, graphs, tables and charts*

- To introduce pupils to the language and vocabulary of science
- To give pupils regular opportunities to use the scientific terms necessary to communicate ideas about science
- To develop pupils' basic practical skills and their ability to make accurate and appropriate measurements
- Within practical activities give pupils opportunities to use a range of simple scientific measuring instruments such as thermometers and force meters and develop their skill in being able to read them.

*To develop pupils' use of ICT in their science studies*

- To give pupils opportunities to use ICT (video, digital camera, data logger) to record their work and to store results for future retrieval throughout their science studies
- To give pupils the chance to obtain information using the internet.

### **Procedures and organisation**

*Principles of teaching and learning*

*Differentiation and Additional Educational Needs*

The study of science will be planned to give pupils a suitable range of differentiated activities appropriate to their age and abilities. Tasks will be set which challenge all pupils, including the more able. For pupils with SEN the task will be adjusted or pupils may be given extra support. The grouping of pupils for practical activities will take account of their strengths and weaknesses and ensure that all take an active part in the task and gain in confidence.

*Breadth and Balance*

*Variety.*

Pupils will be involved in a variety of structured activities and in more open-ended investigative work:

- Activities to develop good observational skills
- Practical activities using measuring instruments which develop pupils' ability to read scales accurately
- Structured activities to develop understanding of a scientific concept
- Open ended investigations.

As often as possible, pupils will carry out the whole investigative process themselves or in small groups.

- Science is organised on the Wansdyke Tracker to ensure coverage, continuity and progression. Teachers use several Schemes of Work appropriate for the needs and age group of their class in order to meet the requirements of the National Curriculum, which is guided by the Wansdyke science overview.
- Teachers use child initiated questions and ideas in science which are related to learning wherever possible.
- The safe use of equipment is promoted at all times in science. Children are taught to handle equipment carefully and living things with sensitivity. Any living things brought into the classroom are returned to their original location as soon as possible. Children are well supervised where necessary and carefully observed during activities to ensure their safety.
- Teachers differentiate in science in a variety of ways. These may include dialogue and questioning, varying time constraints, setting tasks to meet the individual's ability, providing written or pictorial guidance, and providing peer, or adult support.
- Teachers put up displays to celebrate scientific achievement and learning in the classroom, incorporating scientific vocabulary where possible. These provide visual stimuli, the displays support the learning and where appropriate, are interactive.

### **Health and Safety**

- We acknowledge that there will be a need for additional adult supervision according to the task in hand and the children's ability and experience.
- Pupils will be taught to use equipment safely during practical activities. It is the responsibility of the teachers to teach the safe use of tools and equipment and insist on good practice, identifying the hazards and risks.
- All staff members will check equipment regularly and report any damage, taking defective equipment out of circulation.
- Members of staff must follow the school's Health and Safety Policy.

### **Food – Hygiene and Safety**

- Perishable food is brought in and used on the same day it is needed.
- Non perishable foods (e.g. some dry foodstuffs) may be safely stored for future use, providing the 'use by Dates' are still relevant at the time of use and disposed of stored items of food is the responsibility of the class teacher.
- Teachers and support staff will oversee that equipment, worktops and cookers etc are clean and in working order. Cooking aprons should be worn; these are available from the Food and Technology cupboard. Adults and children should follow strict hygiene principles.

### **Assessment**

Teachers make assessments of children's scientific learning in a variety of ways, these include making observations of the children while they are learning, having discussions, asking the children questions, and analysing children's recorded work.

Teachers monitor and track the children's levels of achievement at the end of each unit of work, reporting their assessments twice a year. Staff will scrutinise the children's work collaboratively at regular intervals in order to ensure and maintain a consistent approach to assessing and levelling children's work.

Teachers are to report progress through the Wansdyke Tracker in terms 3 and 6 of each academic year. Progress and attainment are also reported to parents through parents' evenings and end of year reports.

### **Resources**

- Resources are kept centrally in boxes labelled with contents.
- Internet and DVDs. All computers have access to the internet for referencing information.
- Resources are funded in line with the SDP and whole school needs identified.
- Each class has an Interactive Whiteboard and all classes have regular access to the ICT suite which has a range of appropriate scientific software.
- Classroom displays can be used as an informative and stimulating resource to support children's scientific learning.
- The school grounds offer a wealth of resources for studying living things eg. The Conservation area, The OLE, the field and playground.
- Wiltshire School Learning Library (WSLR)

### **Equal Opportunities**

- Children will be given equal opportunities to learn, achieve and progress in science, without prejudice, whatever their age, ability, sex or ethnic origin.
- Significant consideration and additional provision will be made where necessary for children with special needs (refer to the Special Needs policy) or for gifted and talented children (refer to the gifted and talented policy).

### **Related policies**

Assessment Policy  
Equality and Equal Opportunities Policy  
Health and Safety Policy  
SEN Policy

Science lead: O Smith

Signed: 

Chair of Governors