



# **Science Policy**

**Wadsworth Fields Primary School**

**2022**

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## Science Policy

### Aims and Objectives

Science is a core subject within the National Curriculum. The aims of science are to enable children to:

- Enquire, explore and observe so that they can ask questions about themselves and their environment.
- Stimulate their curiosity in finding out why things happen in the way they do.
- Appreciate the way science will affect their future on a personal, national and global level.

The teaching of science should develop the key scientific skills of;

- Hypothesising and predicting
- Planning and carrying out investigations
- Using equipment correctly
- Observing and measuring
- Presenting results in a variety of ways including ICT
- Evaluating results and drawing conclusions

Through developing science skills pupils should acquire knowledge and understanding of:

- Life processes and living things
- Materials and their properties
- Physical processes

In addition, science provides the opportunity for children to develop the key skills of:

- Communication in a variety of contexts through promoting the skills of reading, writing, speaking and listening
- Application of number through the use of weights and measures, handling data, estimating and predicting
- Use of ICT to measure, record, present and interpret data where appropriate, use of internet and science software
- Working cooperatively with others
- Problem solving

### Organisation

At Wadsworth Fields we use the National Curriculum Program of Study as a basis for planning.

- In Key Stage 1 one hour per week is spent on science
- In Key Stage 2 one and a ½ hours per week are spent on science.

The topics in science build on prior learning. Children are given opportunities to develop their skills and knowledge in each unit. Progression is built into the science schemes of work to ensure that children are increasingly challenged as they move through the school.

Every two years, a special science week is planned for the whole school to include visits, competitions and special activities.

### **Long Term Planning**

- The National Curriculum Program of Study is organised into Years 1 and 2, years 3 and 4 and years 5 and 6. Currently this fits in well with our mixed age classes of Y1/2, Y3/4 and Y5/6, and teachers cover all units over a 2 year period. Coverage is carefully monitored to ensure children are taught all units. The National Curriculum units fit in with the term's theme wherever possible. Where this is not possible science will be taught as a discrete unit of work to ensure coverage. In addition to this, children may do extra science to fit in with their chosen topics, e.g dinosaurs, seas and oceans.
- Parents are informed of learning in science through the termly planning overview sent out to parents.

### **Medium Term Planning**

- Detailed planning based on the National Curriculum Program of Study is prepared for each unit of work. These include key learning objectives, and expectations for that unit.
- They also include opportunities for use of ICT, Science investigations, assessment activities and links to previous work.
- Planning grids are produced every half term to show weekly lessons in all subjects.

### **Short Term Planning**

Further detail of science learning is provided on weekly planning including outlines of activities, differentiation and success criteria.

### **Assessment and recording**

Throughout each unit of work teachers and subject leaders will monitor pupil's progress in scientific knowledge, understanding and skills through:

- Lesson observations
- Marking written work
- Discussions with pupils

Learning objectives are identified and activities planned in each scheme of work which provide opportunities for teacher assessment.

At the end of each unit of work, teachers will assess each child and decide whether they are below, at or above age-related expectations in that unit. Judgements will be supported by the use of TAPS assessment tasks (to be introduced summer'22). In addition to this, all children will carry out a complete investigation once every half term to enable teachers to track progress and identify gaps in knowledge in scientific enquiry.

At the end of the year, each teacher will make an overall judgement of each child's attainment in science and record this on Eazmag. This allows the Science co-ordinator to analyse progress and attainment in Science across the school.

### **Teaching and Learning style**

A variety of teaching styles are used in science. The main focus is to provide practical and investigative activities that enable the children to develop their knowledge, understanding and skills through first hand experience.

This will involve:

- Whole class teaching
- Carrying out practical investigations and analysing the results
- Enquiry based research activities
- Discussion
- The opportunity to use a variety of data such as statistics, graphs, pictures, photos etc.
- Use of ICT to enhance learning
- Role play
- Presenting reports to rest of class
- A wide range of problem-solving activities

Because children have widely different scientific abilities we ensure that we provide suitable learning opportunities for all children by:

- Setting a common task which is open ended and can have a variety of responses.
- Setting tasks of increasing difficulty
- Grouping children and setting different tasks for different ability groups
- Providing resources of different complexity
- Using teaching assistants to support the work of individual children or groups of children
- Where appropriate lessons are planned to support children with Special Educational needs or children who speak English as an additional language.

### **Special Educational Needs**

The school strives to enable all pupils to reach their potential. Our work in science considers the targets set in the children's Individual Support Plan.

At Wadsworth Fields we are strongly committed to supporting all children with a Special Education Need. We are aware of the many complex and different needs of

individuals (Dyslexia, Dyspraxia, ADHD and ASD) and aim to make provision for these in all lessons. Through training and resources children are supported by all adults both within and outside of the classroom.

### **Equal Opportunities**

It is the responsibility of all teachers to ensure that all pupils irrespective of gender, ability, including gifted children, ethnicity and social circumstance have access to the curriculum and make the best progress possible.

Science provides opportunities to draw on different interests and experiences to raise awareness and value cultural and ethnic diversity.

### **Health and Safety**

Health and safety issues are considered in planning science work. Planning is clearly annotated to identify areas where particular care is needed.

Teachers are encouraged to check planning carefully before engaging in any scientific activity that could be hazardous such as:

- Use of chemicals
- Heating and burning
- Electricity
- Care and maintenance of animals
- Pond dipping
- Growing micro organisms

### **Monitoring and Review – The role of the Subject Leaders**

Teaching and learning in Science is subject to continual review, evaluation and monitoring.

The subject leader will:

- Monitor standards of children's work and the quality of teaching in science.
- Be responsible for the support of colleagues in the teaching of science.
- Provide a strategic lead and direction for the subject in the school.
- Be aware of the strengths and weaknesses in the subject and indicate areas for improvement.
- Be responsible for the science input in the school development plan.

### **Resources**

Resources are stored in Pine class cupboard. The equipment is kept in labelled boxes and is stored on shelves.

*This policy will be reviewed in May 2024*