



## Woodgrange Infant School Policy for Science

### **Aims of this policy**

- To develop a whole school approach to the teaching of Science
- To outline a range of strategies for teaching Science and ensuring pupil progress.
- To ensure the whole staff understands how to support pupils' development in Science.

### **How we teach Science**

At Woodgrange Infant School we believe that it is important for young children to meet Science ideas through direct experience and relate them to their everyday life experiences. Children learn more quickly through handling objects and talking about concepts before they are asked to represent or record ideas. All children are taught Science through topics. At the start of a topic children are given opportunities to share prior knowledge and this enables the teacher to plan effectively.

Our Science curriculum is delivered through a lively cross-curricular approach. As far as possible scientific enquiry (AT1) is integral to all sessions. The skills of enquiry are taught and practised in contexts provided by the other strands of the Science curriculum; life and living processes, materials and their properties and physical processes. Skills are built up during a topic and children are given the opportunity to carry out their own investigations and, thereby, apply the skills they have been practising.

Investigations follow a Plan, Do, Review structure:

- Questions are raised, a problem set up and a **plan** developed.
- Children then carry out or **do** the investigation
- The group or class feed back and discuss ideas to **review** what has been learned.

### **Science and the wider curriculum**

There are many cross-curricular opportunities to explore scientific concepts. These include using sorting, classifying and measuring in mathematics or technology, exploring patterns and symmetry in art. Such opportunities to revisit concepts are fully exploited as it gives meaningful contexts within which scientific ideas can be reinforced or practised.

### **Classroom organisation and the role of adults**

In our organisation for scientific activities we provide opportunities for children to work:

- independently or collaboratively
- in large or small groups
- as a whole class

Adults will support learning in a variety of ways:

- questioning, scribing or recording, modelling, listening, challenging, observing, assessing and planning next steps etc...

### **Science in the Early Years Foundation Stage**

All children in the EYFS follow a broad-based curriculum and have a wide range of opportunities to explore scientific concepts; both planned and self-initiated inside and outdoors.

Resources are used imaginatively and creatively to stimulate curiosity and excitement about the world around them.

Assessments are observation based and inform planning to build on prior knowledge and understanding.

### **Science in Key Stage One**

In Key Stage One we follow the National Curriculum Objectives. Scientific knowledge is firmly based within a skills based approach to learning. Our cross-curricular approach ensures children develop skills in a broad range of contexts and have numerous opportunities to revisit and apply ideas.

### **Supporting all learners**

All children should have full access to a full and stimulating curriculum. We aim to achieve this through differentiation; providing either support or extension as appropriate. We try at all times to ensure our curriculum and resources reflect our pupils' interests and experiences and differing learning styles.

### **Supporting Bilingual Learners**

In our teaching of Science we place particular emphasis on the teaching and development of scientific language and use a wide range of strategies to support all pupils including those who speak English as an additional language. We do this through using visual and practical resources and explanations. Where possible we use a child's home language. Key vocabulary is emphasised in whole class sessions and children are encouraged to use this vocabulary in their recorded work and when they are verbally explaining their ideas. Any classroom displays incorporate key vocabulary and questions.

### **How do we assess Science?**

We use a wide range of strategies to inform us about progress including:

- Observing children working
- Talking to children in groups, as a class or individually
- Using questions

At agreed points during the school year a sample of work in Science is collected using an agreed activity, usually an investigation. These samples are used as a starting point for the assessment of pupil progress against the learning objectives for the year group and provide evidence for

- a pupil's level of attainment at a given time
- reviewing previous targets
- assessing progress made
- identifying areas of difficulty or areas of strength
- setting new targets

We record assessments in a range of ways including:

- post-its or other noted observations
- comments on recorded work
- annotated photos
- annotations on flipcharts
- individual comment sheets attached to samples of work.

We invite all staff to actively contribute to this assessment process.

All of this evidence contributes to the overall picture of achievement for each child.

All of our assessments inform future learning.