



# Woodfall Primary and Nursery School

## Woodfall Primary School and Nursery Science Curriculum Statement

At Woodfall Primary School and Nursery, we aim to deliver an enriched science curriculum, on a weekly basis that provides opportunities for stimulating, challenging and practical hands on experiences that promote a love for enquiry and wanting to explore new things. Our curriculum will encourage a positive attitude of learning based on curiosity and discovery, extending their scientific knowledge and vocabulary of the world around them so that they have a deeper scientific understanding of the world we live in. We believe that these opportunities will ensure that our children are confident, life-long learners who will explore the world around them.

In the Early Years Foundation Stage, activities are planned in relation to the “Understanding the World” area of the foundation stage curriculum. Children’s progress and achievements are assessed against the Early Learning Goals at the end of reception. The activities are planned in a cross curricular way through topic areas that are interesting and enjoyable.

### Implementation

During Key stages 1 and 2, science will be taught in weekly specific subject lessons and wherever possible cross-curricular links will be made between science and other subjects, particularly English, maths, DT and ICT. Activities are planned to cover both subject knowledge, including famous scientists/engineers and the key ‘working scientifically’ skills for each year group, with particular importance placed on children working actively and practically. Work is recorded in a variety of ways including the use of drawings, charts, graphs and photographs. Children complete at least one science investigation per half term, with an emphasis on assessing specific ‘working scientifically’ skills. By Upper Key Stage Two, children are able to plan, carry out and then write up their full investigations. They communicate conclusions and carry out repeat tests to check results.

We believe it is essential to ensure continuity and progression across the key stages.

### Key Stage One

The principal focus of science teaching in key stage one is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly-constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about science should be done through the use of first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.

‘Working scientifically’ is described separately in the programme of study, but must always be taught through and clearly related to the teaching of substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.

Pupils should read and spell scientific vocabulary at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

### Lower Key Stage Two – Years 3-4

The principal focus of science teaching in lower key stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

‘Working scientifically’ is described separately at the beginning of the programme of study, but must always be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content. Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge.

### Upper Key Stage Two – Years 5-6

The principal focus of science teaching in upper key stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. At upper key stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information. Pupils should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.

‘Working and thinking scientifically’ is described separately at the beginning of the programme of study, but must always be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content. Pupils should read, spell and pronounce scientific vocabulary correctly.

### Assessment

When we teach each unit of study, assessment for learning will be continuous throughout the planning, teaching and learning cycle underpinning teaching and learning in science. Children will be more formally assessed as each unit of study is taught in KS1 and KS2 using a variety of methods:-

- Observing children at work, individually, in pairs, in a group, and in classes.
- Questioning, talking and listening to children.

- Considering work, materials and investigations produced by children together with discussions about these with them.
- Summative end of unit assessments

An age related assessment is provided for parents on the annual school report.