

### Science Curriculum Coverage 2016/17

At Watton School we follow the National Curriculum Framework for Science, it aims to ensure that all pupils:

- develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics
- develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.

Working scientifically' is described separately, but must **always** be taught through and clearly related to the teaching of science content in the programme of study:

In Year 1 and Year 2, 'working scientifically' includes aspects of:

- Observing closely using simple equipment
- Performing simple tests
- Identifying and classifying
- Recording findings in various formats.

In Year 3 and Year 4, 'working scientifically' builds on earlier content and also includes aspects of:

- setting up simple comparative and fair tests
- beginning to make accurate measurements using standard units
- recording findings in various formats
- reporting on findings
- using results to draw conclusions and make predictions for setting up further tests.

In Year 5 and Year 6, 'working scientifically' builds on earlier content and also includes aspects of:

- Planning investigations, including controlling variables
- Taking measurements with increasing accuracy and precision
- Recording data and results of increasing complexity using various formats
- Reporting on findings from investigations, including written explanations, causal explanations and conclusions
- Presenting reports of findings in written form, displays and presentations
- Continuing to develop the ability to use test results to make predictions to set up further comparative and fair tests.

Most programmes of study are progressive, they are taught throughout both key stages, building upon prior learning. We currently use 'Switched on Science' as a starting point for our planning, to support this we also use Herts for Learning (HfL) "Primary Science Package'.

Below is a table of termly themes for each year group.

## 2016/2017 Yearly Topic Overview

	Autumn	Spring	Summer
<b>KS1</b>	Everyday Materials  Seasonal changes	Animals including Humans  Seasonal changes	Plants and our Forest School
<b>YEAR 3</b>	Plants  Forces and Magnets	Rocks and Fossils  Food and our Bodies	Light and Shadows
<b>YEAR 4</b>	Living things and their Habitats  Electricity	Animals including humans  States of Matter	Scientific enquiry 'Bubbles' Sounds and Vibrations
<b>YEAR 5</b>	Properties and changes of materials  Forces	Earth and Space  Scientists and inventors	Living things and their habitats  Animals including humans
<b>YEAR 6</b>	Classification Animals including humans  The circulatory system: The heart and the lungs.	Evolution and Inheritance  Dinosaurs	Electricity Seeing Light

(attached document shows the progression of skills)

### **ASSESSMENT**

HfL has developed a suite of resources, which contains a range of assessment tasks, tracking documents and a breakdown of the knowledge required for each topic to help teachers with planning and assessment. The assessment tasks show children working scientifically through each of the topic areas covered for their year group. The tracking documents allow teachers to assess children that are working 'towards', 'at' or 'above' Age Related Expectations in individual topic areas as well as working scientifically throughout the year.

### **Extra-Curricular:**

We are enthusiastically developing our forest school and this has a major impact on the studying of science. We also arrange science days or weeks, to broaden the experiences across many aspects of science. There is also a Wild at Watton Nature Club held each week. The school also has close links with Richard Hale School science department and Glaxo GSK: children visit workshops held by GSK or they visit us at school to support science learning. Teachers from Richard Hale have been to school to help teach science with their wider range of resources, Year 6 recently had a real heart and lungs to investigate.

The school has chickens, children are learning to care for the animals, each class takes on responsibility for this.