



# Science Policy

Knowledge and Understanding of the World Team – January 2022

## SCIENCE POLICY

### RATIONALE:

The intent of Pensby Primary's Science curriculum is to ensure that all children are taught age appropriate science subject knowledge as laid out by the National Curriculum. It is our intent to encourage children to be inquisitive about the world, nurturing their innate curiosity and enabling them to develop a range of scientific skills that are useful across the whole curriculum.

### AIMS:

Our curriculum aims to ensure that all children:

- 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 and vocabulary required to understand the uses and implications of science, today and for the future;
- develop an enthusiasm for science that will lay the foundations for future study at Key Stage 3.

### ORGANISATION & CONTENT OF THE CURRICULUM:

At Pensby Primary school, we make the learning of science interactive and engaging through the use of correct scientific resources and activities. It is carefully planned, following the long term plan, to ensure progression of learning in each year group, particularly for those subject areas such 'Animals including Humans' and 'Materials' which are covered in several consecutive year groups. Progression of skills when 'working scientifically' are similarly specified to ensure that all these skills are taught, practised and progressed throughout a child's primary education.

PLAN (from The Association of Science Education) is used as the basis for our planning and assessment in Science to enable teachers to have a clearer understanding of National Curriculum planning and assessment. In addition TAPS (Teacher Assessment in Primary Science) 'Why and How' resources from Bath Spa University are used to provide a framework of focused activities and assessments for all 'Working Scientifically' progression throughout the school.

Each year group teaches science weekly (except in exceptional circumstances when it would be fortnightly) throughout the academic year following the long term plan for Science. The organisation of age appropriate content and technical vocabulary enables pupils to discuss, investigate and evaluate in all areas of science and long term plans have been devised to enable children to easily see the link between their science learning and other curriculum areas.

The overview long term plan for KS1 & KS2 is

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Animals including humans (Animals)	Seasons	Animals including humans (Humans)	Materials	Materials cont. Plants	Plants
Year 2	Animals Including Humans	Materials	Living Things and Habitats	Living Things and Habitats	Plants	Plants
Year 3	Rocks	Animals including Humans	Plants	Light	Forces and Magnets	Working Scientifically
Year 4	Animals, including humans	Materials	Electricity	Sound	Working Scientifically Living things and their habitats	Working Scientifically Living things and their habitats
Year 5	Earth and Space	Earth and Space/ Materials	Materials	Forces	Living Things and their habitats	Animals, including humans
Year 6	Electricity	Light	Evolution & Inheritance	Evolution & Inheritance	Animals inc Humans	Living Things/Habitats

#### **INCLUSION & INTEGRATION:**

At Pensby Primary School, we are aware that children demonstrate a wide range of abilities and as a result, we seek to provide suitable learning opportunities for all children. Through hands on activities, role-play, shared and paired activities, the teaching of Science is a highly inclusive subject and, although the principal aim of the teaching is to develop children's knowledge, skills and understanding, there is also an emphasis on enjoyment. We strive to meet the needs of all children and we take all reasonable steps to achieve this, ensuring that science is taught to all children, whatever their ability or individual needs.

Small supported groups of children from Stanley Special School are welcomed into Science curriculum lessons if the staff from Stanley School consider it is appropriate for them. Pensby staff work with the Integration Lead from Stanley Special School to ensure the appropriateness of the lesson material and the health and safety of everyone.

#### **LINKS WITH OTHER AREAS OF THE CURRICULUM:**

Scientific links are made in all areas of the curriculum to ensure children see how scientific knowledge and skills are integrated into all areas of the curriculum so that Science supports the skill development of other subjects whilst also maintaining its integrity.

#### **MONITORING:**

The action plan will be reviewed termly and updates presented to the subject Governor.

Science monitoring across the school will take place 3 times a year (once per term). This will include:

- Pupil interviews,
- Staff interviews,
- Scrutiny of evidence on Seesaw;
- Book scrutiny when appropriate;

- Pupils' development in science is monitored by class teachers as part of our internal assessment systems and noted on Seesaw and Depth of Learning;
- This policy will be reviewed by the science subject Leader annually. At every review, the policy will be approved by the headteacher/Governors.
- At the end of the academic year a subject leader report will be written and considered by SLT and Governors. The report will measure attainment and progress of pupils.

## **ASSESSMENT & RECORDING:**

### **EYFS**

Regular observations and assessments of learning are recorded using an on-line journal (Seesaw) and contribute to a summative assessment at the end of EYFS using the Early Years Outcomes.

### **KS1 and KS2**

Formative assessments of children's learning are made and assessed through observations and classwork and shared as evidence on Seesaw. These assessments contribute to a summative judgement at the end of each term against the science statements supplied by the science lead and found on Depth Of Learning. PLAN documents are used to assess against the expectations of the knowledge statements for each topic from each year of the science National Curriculum and summative data entered for Year 2 and Year 6 as required nationally using the 'Exemplification of Standards in Science' to inform judgement.

### **REMOTE LEARNING**

If there is a need for remote learning the skills and knowledge in Science are taught through Seesaw and will include activities, videos and on line resources to support the subject. It may be necessary to amend the order that individual subject areas are taught to ensure maximum access for all children whether they are learning at school or at home. Experiments requiring specialised equipment will form part of the recovery curriculum as required.

### **RECOVERY CURRICULUM**

Subject Leaders will plan a recovery curriculum following any period of sustained home learning which will identify gaps in children's knowledge and understanding. The long term plan will then be revisited and the content and coverage adjusted to ensure that there are opportunities to overlearn, revisit or restructure as needed