



# SOUTHBOURNE JUNIOR SCHOOL

## Science Policy

### **Our vision for Science:**

*At Southbourne Junior School, we believe that learning should be engaging, varied, relevant and appropriate to every child's needs. Through our Science curriculum, we endeavour to increase children's science capital, empowering them to think scientifically, to develop curiosity, ask questions about the world around them and to look to the future. Our curriculum is about developing our children's ideas and ways of working that enable them to make sense of the world in which they live.*

### **Aims:**

- To provide a hands-on curriculum that is enjoyable, exciting and challenging.
- To develop the child's curiosity in the world around us.
- To enable children to think scientifically and ask questions about the world around us.
- To develop in children an understanding of how to go about investigating the world around us.

### **Learning and teaching**

Children learn to think and behave as scientists, using hands-on, practical experiences where possible. These may include:

- Carrying out investigations and observing results
- Visiting venues of scientific significance, e.g. Science Museum, planetarium, Big Bang Science Fair
- Inviting visitors to run workshops or demonstrations
- Inviting parents or STEM ambassadors to talk to our children about careers in STEM subjects
- Inviting Wildlife Liaison Officers to run sessions, e.g. pond dipping, dissecting owl pellets

Learning opportunities are irresistible and varied, with learning being recorded in a variety of ways, and links being made to other areas of the curriculum. Examples include:

- The use of computing to create spreadsheets, graphs, etc. to record and present results
- The use of drama, discussion and debate
- Annotated photographs of tasks, investigations, experiments, etc.
- A science display board in each class for their current topic, with key words, key scientists and class contributions which help to answer the enquiry questions

### **Working Scientifically:**

Working scientifically specifies the understanding of the nature, processes and methods of science. It is embedded into the curriculum through the following lines of enquiry: observing over time, pattern seeking, identifying, classifying and grouping, comparative and fair testing (controlled investigations) and researching using secondary sources.

### *Attitudes:*

- Encouraging the development of positive attitudes to Science
- Building on our children's natural curiosity and developing a scientific approach to problems

- Encouraging open-mindedness, self-assessment, perseverance and responsibility
- Building our children's self-confidence to enable them to work independently
- Developing our children's social skills to work cooperatively with others
- Providing our children with an enjoyable experience of science, so that they will develop a deep and lasting interest and may be motivated to study science further

*Skills:*

- Giving our children an understanding of scientific processes
- Helping our children to acquire practical scientific skills
- Developing the skills of investigation - including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, pattern spotting, explaining and evaluating
- Developing the use of scientific language, recording and techniques. Enabling our children to become effective communicators of scientific ideas, facts and data

**Planning, Progression and Continuity:**

The National Curriculum programme of study for Key Stage 2 forms the basis of our Science curriculum. We use the 'Kent Scheme of Work for Primary Science' as the backbone of our learning journeys to ensure all learning expectations and 'thinking scientifically' skills are covered and taught.

The scheme also ensures that we provide progression in knowledge and skills, whilst connecting science with other curriculum areas throughout the school where possible. Teachers use and carefully adapt the planning and resources from the 'Kent Scheme' to match the unique circumstances of our school, ensuring what they teach is tailored to our children and in line with the National Curriculum.

*Continuity is ensured through the following:*

- Whole school curriculum map
- Whole school science overview
- Year group knowledge, skills and progression map
- Grid tracking progress in thinking scientifically
- Overview showing links between prior and future learning
- 'Kent Scheme' planning used and adapted to fit the needs and interests of our pupils
- Knowledge organiser for each topic, with the appropriate, relevant knowledge, skills and vocabulary

It is a topic based approach. Each half term every year group has one topic, around which, where possible, other subjects (including SMSC and British Values) are related.

**Feedback:**

Children receive regular and timely verbal feedback during the course of a lesson or series of lessons, in accordance with the school's Feedback Policy. Written work may be marked with the focus being on the 'thinking scientifically' skills or the answer to the key question being explored. Children may be expected to respond to feedback in a variety of ways in line with the school's policy.

**Assessment, Recording and Reporting:**

Pupils are assessed against the skills set out on the year group progression map and grid tracking progress in thinking scientifically. This will ensure children are challenged and their skills are developed each year.

Teachers update the tracking grid throughout each half term, showing whether a child is working towards or at the expected level.

Using a 'Focused Assessment of Science' lesson from TAPS (Teacher Assessment in Primary Science) on the Primary Science Teaching Trust website, teachers assess conceptual knowledge and 'working scientifically' skills, showing whether children are exceeding, meeting or not yet meeting expectations. At the end of each academic year, teachers report to parents the standard at which they have assessed children.

### **Inclusion:**

We recognise that not all children will be able to access science learning in the same way, and that more able children may need further challenges. As a result, teachers differentiate planning accordingly in order to provide suitable challenges for more able children, as well as support for those who have emerging needs. Teachers may look at alternative ways of recording learning: adult and peer support, greater scaffolding or more open-ended learning for some children.

### **Role of the Subject Leader:**

The subject leader will monitor the delivery of the Science curriculum in a variety of ways:

- Lesson observations
- Book looks
- Learning walks to monitor the learning environment
- Pupil conferencing
- Evaluating knowledge organisers
- Collecting data for pupil progress in Science

The subject leader will also support staff through CDP in staff meetings, sharing relevant up to date information, ideas and resources, and report to the headteacher and governors.

### **Role of the teacher:**

Teachers are responsible for the learning and progress in Science for all the children in their class, as well as planning and resourcing appropriately differentiated learning opportunities.

**Reviewed and updated:** January 2023

**Next review:** January 2026