Weobley Primary School

Science Policy

Date of Review:	September 2022
Reviewed by:	Jane Ameghino - Subject Leader
Date of Approval:	September 2022
Approved by:	Stephen Warrell – Head of School
Next Review Date:	September 2023

Contents

1. Our Mission

'A safe, happy learning environment where everyone is valued'

- The staff at Weobley Primary School are committed to working together to contribute to the healthy growth and development of all our children.
- We aim to create an atmosphere of care, trust and respect in which children feel nurtured, encouraged and valued and staff feel supported by one another.
- Through a stimulating and broad curriculum, we embrace the diversity of cultures, race and social backgrounds.
- We aim for each child to reach their full potential, to be confident and to develop a positive attitude towards their own learning.
- We will provide a wide range of learning opportunities for the children; encourage them to value their own achievements and to celebrate the success of others.
- Our high expectations for achievement include good behaviour, tolerance, cooperation and fairness.
- We welcome active involvement of parents and carers in the life of the school and recognise their vital role in laying the foundation of their children's educational development.
- This partnership is extended to the wider community, where strong, mutually beneficial links are valued.

2. Our Intent

A pupil of Weobley Primary School will:

- use our local and wider environment and natural resources within our science lessons.
- be encouraged to develop a greater interest in science and nature.
- increase their understanding of the importance of STEM in everyday life.

3. Implement of the Curriculum

What does our science curriculum look like?

Pupils will be taught in line with the National Curriculum 2014 and opportunities for teaching science as part of a cross curricular approach will be encouraged where possible.

As a school, we will follow (but not be limited by) the Pearson Science Bug Scheme of Work, supplemented by a teacher's own choice of resources as the need arises. This will serve to meet the needs of the National Curriculum and create inspiring lessons which the teachers enjoy delivering.

The teaching and learning of science will be varied and will be the most appropriate method to address the learning outcome of the lesson.

Children will be taught and will work:

- As a whole class
- In groups (sometimes differentiated by ability)
- In pairs or individually

Time Allocation

Science should be taught for 76 hours over the course of a year. To ensure science is taught in the best possible way, class teachers are given flexibility as to how they allocate this time throughout the school year. For example, this may mean a subject is taught in a block over the course of a week rather than for a short period every week or it may be paired with another subject and each subject taught for half of the term.

Cross-Curricular Opportunities

Science lends itself to cross-curricular learning, and learning may be incorporated into literacy, art and music, as well as the more obvious links with maths and technology. There are even opportunities to make links between science and religious education. Teachers will be encouraged to use a cross-curricular approach when they consider it appropriate.

Extra-Curricular Opportunities

As science is strongly associated with the environment, teachers will be encouraged to use our outdoor spaces as much as possible. Each class will have the chance to grow their own produce in raised beds, and there will be seasonal opportunities to use the pond and wetland area. This may be during lessons, but could also be during break time or in after-school clubs.

From time to time, children may be invited to go on educational visits to museums and attractions linked with their science topics, or visit local areas of interest such as Sturts Nature Reserve and other similar sites. Teachers will be encouraged to use these resources to help to develop greater interest in the subject.

Inclusion and Equal Opportunities

Activities are carefully planned by the class teacher and will be differentiated where appropriate for children with SEN and equally the more-able and Gifted and Talented children. All resources/materials have been reviewed with equal opportunities in mind, e.g. race, gender, ethnicity. Learning experiences in science will be available to every child, regardless of race, gender, class or ability. Pupils will be encouraged to value social and cultural diversity through their experiences in the subject.

We recognise that in all classes, children have a wide range of ability, and so we seek to provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this in a variety of ways which include, but are not limited to:

- setting tasks which are open-ended and can have a variety of responses
- setting tasks of increasing difficulty
- grouping children by ability and setting different tasks for each group
- grouping children in mixed ability groups
- providing resources of different complexity, depending on the ability of the child
- using classroom assistants to support the work of individuals or groups of children

Resources

Resources associated with planning are provided by the Pearson Science Bug Scheme of Work.

Physical resources for each unit will be provided and stored in labelled boxes in one of the science cupboards. Consumables and 'seasonal' resources will be obtained by the class teacher as the need arises.

Links with Weobley High School may enable teachers to share some equipment which may not be needed very often, though frequently-used equipment will be kept in school.

Health and Safety

There are some hazards associated with teaching science and teachers and teaching assistants will be used to ensure that supervision is given to minimise risks.

- Hazardous materials will be stored and used in conjunction with COSHH guidelines.
- Sharp tools will be maintained in a safe condition, and children will be supervised when using them.
- Biohazards will be dealt with appropriately and children will be educated in the need for excellent hygiene when dealing with potentially contaminated materials. These materials will be kept in sealed bags and labelled appropriately. e.g. investigations into mould growth or decay of foods.

- Damaged equipment may be unsafe and should be disposed of appropriately and replaced.
- Children will be informed of risks of any activity, and advised of precautions they may need to take.
- Personal protective equipment will be provided if deemed necessary.

Further Information

Further detail of the science curriculum can be found in the following three documents:

- National Curriculum for Science 2014
- Subject Map - Science
- Year Group Subject Map - Science

4. Impact

Our science curriculum facilitates sequential learning and long-term progression of knowledge and skills. Teaching and learning methods provide regular opportunities to recap acquired knowledge through high quality questioning, discussion, modelling, and explaining to aid retrieval at the beginning and end of a lesson unit. This will enable all children to alter their long-term memory and know more, remember more and do more as scientists.

Assessment

Each lesson in science gives the children the opportunity to self-assess their confidence in the lesson's objective. Self-assessments are compared with the teacher assessments and a decision is made as to whether the whole class, a small group or individuals need further support in this area. This additional support is either delivered by the class teacher or teaching assistant.

There is also teacher assessment of each unit and grades are recorded within the online Science Bug platform. This will enable teachers and the leadership team to monitor progress at an individual or whole school level.

5. Role of the Subject Leader

Monitoring

Monitoring is carried out by the Subject Leader, supported by the Head of School and Lead Teacher in the following ways:

- Informal discussions with staff and pupils
- Work sampling
- Classroom observations
- Assessment folder observations

Training

Any staff training needs identified through monitoring will be organised by the Subject Leader in conjunction with the Head of School and Lead teacher.

Evaluation and Review

This policy along with the Subject Map and Year Group Subject Map are reviewed annually by the Subject Leader. A Subject Action Plan is also produced each Autumn term, at the same time, the previous year's action plan is reviewed.