

## Science Policy



### INTRODUCTION

At Bridgewater our policies are regularly reviewed. This reflects current practice within school and all related government guidance and statutory requirements.

### AIMS

At Bridgewater, we have a vision for Science which closely fits with our schools curriculum drivers. Science is good when:

- Science is actively taught through questioning, discovering and investigating the world around them. These experiences will help them to understand more about the world they live in. This should include outdoor learning, visits and visitors.
- We aim to ensure that such experiences will be relevant to the world of the child but must at the same time satisfy their curiosity and offer a worthwhile challenge.
- Science should raise the aspirations of children developing their understanding and interest of STEM careers by helping children to make links between Science and the world of work and developing the confidence, skills and enthusiasm.
- We should all communicate ideas using appropriate scientific language and vocabulary.

### EQUAL OPPORTUNITY

We are committed to providing a teaching environment conducive to learning. Each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability.

### LEARNING IN SCIENCE

Science work is planned using the National Curriculum for Science 2014. The programmes of study for science are set out year-by-year for key stages 1 and 2. By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

In Early Years the development of scientific thought is an important area of experience. Learning should be active, bearing in mind the requirements of the EYFS Curriculum Guidance.

Teachers will use the school's short term planning structure to indicate how lessons will be delivered.

Key features of science include:

- Lessons have clear learning intentions and success criteria
- A dual objective approach ensures that science knowledge is taught alongside science skills.
- Appropriate pace of learning is in place and high expectations maintained
- Account is taken of pupils' prior learning
- High standards of presentation are expected
- Pupils are regularly given opportunities to plan, predict, investigate and evaluate different types of practical activities.
- Good use is made of a wide range of resources
- Pupils are praised effectively to encourage and motivate them and are well supported according to their needs
- ICT is used to enhance learning and teaching experiences
- Pupils are aware of the importance of scientific work to everyday life and make relevant links
- Pupils are encouraged to share responsibility for their own learning

We recognise that there are a variety of ways in which teaching may be effective and that each has its value. A good balance of methods includes:

- ◆ direct teaching
- ◆ discussion
- ◆ teacher demonstration
- ◆ research
- ◆ individual and group work
- ◆ clearly focused exploration
- ◆ first hand experience of teacher led and child initiated investigation

Since all children have an equal entitlement to the whole curriculum, differentiation will allow access to science at a level appropriate to all pupils' needs including those with Special Educational Needs, where English is the second language and for the high attaining pupils. Teachers will track forwards/back to identify appropriate learning objectives and success criteria. These will be indicated on the short term plan.

## **RESOURCES**

A range of science resources are available including:

- LCP Science Files
- 100 Science Lessons for the New Curriculum
- 2016 Schemes of Work (STEM Network)

Learning resources are kept in the science cupboard. This is managed and monitored by the science coordinator. All equipment is labelled and stored in its own place. It is the responsibility of all the staff to return all equipment to the Science cupboard. The Co-ordinator maintains oversight and purchases new material sources at regular intervals. An audit of all equipment has been done.

## **ASSESSMENT**

The assessment of Science is an integral part of teaching. It allows teachers to identify what the children already know, what has been learnt and to monitor children's progress

Assessment will take place at three levels: short-term, medium-term and long-term. These assessments will be used to inform teaching in a continuous cycle of planning, teaching and assessment.

Short-term assessments will be an informal part of every lesson to check the children's understanding and give the teacher information to adjust future lessons. Children are continuously assessed by:

- Observing children at work, individually, in pairs, in a group, and in classes.
- Questioning, talking and listening to children
- Considering work/materials / investigations produced by children together with discussion about this with them.

Marking is used to acknowledge achievements and to show the pupils what they need to do in order to improve. Scientific spellings are modelled and corrected.

Medium-term assessments take place at the end of every unit of work. The teacher will assess the children based on the end of key stage expectations laid down in the Primary Framework.

Long Term assessments will take place towards the end of the year. Teachers will draw upon their end of unit assessments and supplementary notes about their class against the end of year/key stage expectations laid down in the Primary Framework to produce a summative record.

## **MONITORING**

The teaching of science is monitored by the Science Coordinator on a regular basis, each class being visited once a year. Follow-up discussion and evaluation of children's work aims to ensure that there is continuity and progression throughout the school. The coordinator is the first port of call for advice and can bring in outside agencies for guidance when necessary.

## **SAFETY IN SCIENCE**

We accept that we must all plan safe activities for science. We must make our children aware of the need for personal safety and the safety of others during their investigations. We encourage them to reflect on safety issues themselves to help reinforce teacher direction. Class Teachers, Teaching Assistants and the Subject Leader will check equipment regularly and report any damage, taking defective equipment out of action. QCA schemes of work give guidance on health and safety and is consistent with advice given in the "Be Safe!" Guide. This provides model risk assessments for activities in primary science. A copy of which is available from the science coordinator for staff to refer to. If an activity is not covered by 'Be Safe' then we will contact CLEAPSS (School Science Service Helpline 01895251496) for further advice.

**Updated:** Spring 22

**Next Review:** Spring 25