



SCIENCE POLICY

2022-2023

Effective Date: June 2021

Last Reviewed: June 2022

Reviewed by: Miss H Hinson

Next Review Date: June 2023

Our vision

Through well-structured lessons in a caring and supportive school environment, we provide children the opportunity to reach their potential in all subjects and get ready for their next steps in education.

Rationale/Intention

Science is an investigation into the ways that the world works through first hand experiences and a range of other sources of information. Children will investigate the physical, chemical and biological aspects of the world around them. The scientific process and a variety of problem-solving activities will be studied by pupils to deepen their understanding, respect and care for the world in which they live in line with the programmes of study National Curriculum 2014.

The aims of teaching science are to:

- Develop an interest in and enjoyment of science and its impact to all areas of their lives, encouraging students to link their science learning to the real world
- Develop an appreciation and understanding of the contributions of famous men and women in science from around the world
- Deepen knowledge of the science contained in the national curriculum
- Promote curiosity and a sense of awe about the world, developing a sense of enquiry encouraging them to question and make suggestions and predictions for their own practical activities
- Through investigation and practical activities and other resources, give pupils a greater understanding and knowledge of the concepts of science. Providing students with a variety of specific investigations and practical work to develop real world understanding of science
- Develop an understanding of a fair test through planning, executing and evaluating a simple investigation
- Provide children with a good science vocabulary, both in the topics covered and in the vocabulary of investigation and encourage children to use this vocabulary in writing and verbally
- Develop practical skills including making accurate and appropriate measures using a range of scientific equipment such as thermometers and force meters
- Promote a 'healthy lifestyle'
- Develop the use of ICT in science by giving children the opportunities to use ICT to record their work and research information.

We will form our schemes of work around the above objectives. Assessment will also be related to these objectives, along with the national curriculum objectives.

Provision/Implementation

Studying science will be planned to give all pupils a range of differentiated activities which are tailored to their ages and abilities. Teachers will adjust tasks to challenge all pupils, including the more able. For children with SEN the tasks will be adapted to consider the individual strengths and weaknesses of pupils and allow all children to participate in science lessons and grow in confidence. All children are able to access the curriculum through differentiated support irrespective of physical or learning ability, gender, ethnicity or social circumstances. Gender and cultural difference will be positively represented in teaching materials used.

Children will be given the opportunities to plan and carry out investigations with varying degrees of independence with the intention of developing good observational skills, practice using measuring

instruments and developing an understanding of a specific scientific concept. Wherever possible science will be related to the real world and every day examples will be used.

Continuity

Learning science begins in Foundation Stage as part of understanding the world. Children are given opportunities for early practical science guided by teachers, whilst allowing the children to experiment themselves.

In Key Stage 1 children will be introduced to science through practical observations and explorations of the world known to them. The children will then progress into carrying out supportive investigations. In Key Stage 2 these investigations will become progressively more student led, with subject specific knowledge and content introduced throughout both key stages in a progressive, coherent way.

Cross Curricular Links

Science impacts every aspect of our lives and we strive to relate it to all areas of our curriculum. This could be in history where we teach children about the scientific breakthroughs of men and women, in ICT which we can use to research scientific concepts, or using literacy in articulating pupils' understanding.

Assessment/Impact

Throughout the school year, pupils' attainment in science will be teacher assessed. Teachers will determine whether children are working at, above or below the expected level for their age, based on their level of understanding and practical application of the content they have studied in relation to the National Curriculum 2014 and the above objectives. This attainment and progress is shared in end of year reports and at parents evenings and is used to inform future planning to ensure children make good progress.

Role of the subject leader

Science will be an annual focus of a staff meeting, during which standards of teaching and learning will be assessed using work sampling. This meeting will also be used to share good practice and discuss the use of resources in science.

Resources

Resources will be held centrally, in the cupboard off the staff room. Resources can be shared by all teachers to teach the topics they are covering. Moggerhanger Primary School is federated with Sandy Secondary School and we have a good relationship with the science department at Sandy Secondary and can borrow high quality and more varied resources.

Health and Safety

Pupils will be taught the correct and safe way to use the scientific equipment when using it in their practical investigations. All equipment will be safe for children to use, and teachers will check the resources before they are shared with the children. A simple risk assessment will be carried out before all practical science activities and any risks discovered will be communicated to the Executive Principal, who will determine the appropriateness of the activity.