Mottram C.E. Primary School

Science Policy

Curriculum drivers:

We aim to interweave our curriculum drivers through all elements of our Science curriculum in the following ways:

Communicators – Pupils will communicate their questions, ideas and findings in Science. They will be encouraged to take part in exciting discussions about aspects of their Science learning and present their findings to their peers.

Explorers – We encourage our pupils to explore Science, by asking their own questions and using a wide range of investigative techniques to find the answers.

Readers – Pupils have the opportunity to read scientific information that is presented to them in many different forms, including books, reports and data.

Believers – Our pupils are always encouraged to believe that they can be a part of our ever-changing scientific world. We believe that by increasing our pupils' Science capital, we are helping to prepare them for their own future in this world.

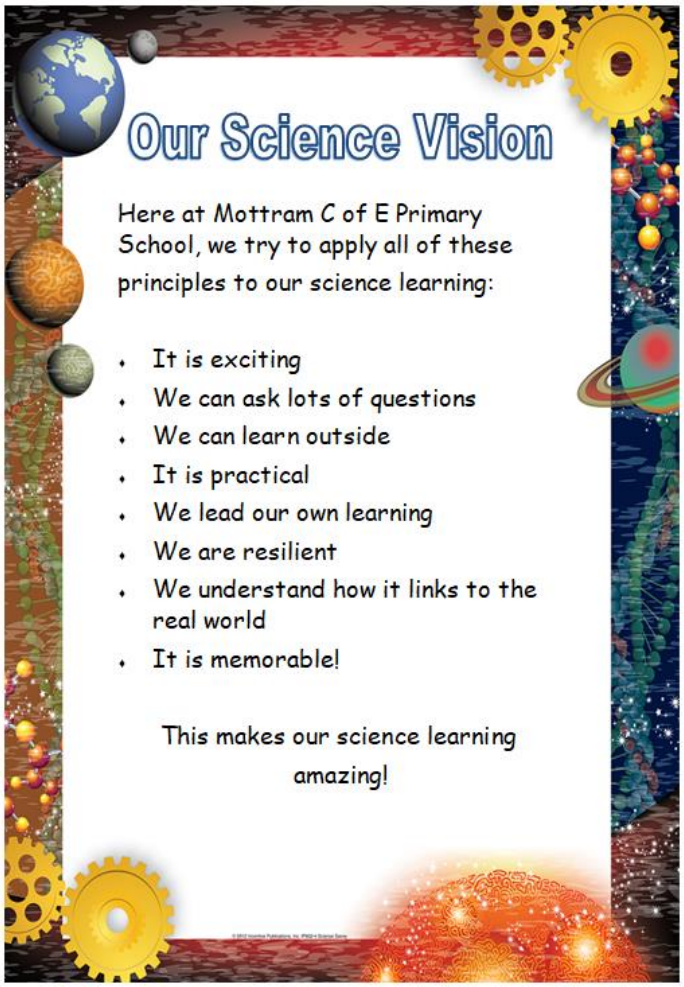
Intent:

At Mottram CE Primary School, we aim to build upon children's natural excitement and curiosity about the world around them, through the teaching and learning of Science. We recognise the importance of Science in our modern lives and aim to provide our pupils with as many opportunities as possible to learn about these Science concepts and build up a key foundation of knowledge, whilst maintaining a hands-on, practical approach to learning. We promote a love of learning through

experimentation, whilst creating memorable experiences which will prepare them for the world of Science in their later lives.

Aims:

As a whole- school community, we developed the following Science Vision. This summarises our aims for Science at Mottram CE Primary School, based on the thoughts and opinions of our pupils and staff:



Early Years Foundation Stage (Reception)

In Early Years Foundation Stage (EYFS), the teachers use the Development Matters document to plan, leading to the achievement of The Early Learning Goals (ELG) set out in EYFS Statutory Framework. Science is taught through the specific area of 'Understanding the World', where pupils look at 'The Natural World'. They will talk about the world around them, including seasons, plants and animals and the

environment. They will be introduced to new scientific vocabulary and make observations about what they see.

Key Stage 1 (Years 1 and 2) and Key Stage 2 (Years 3 – 6)

Science is taught weekly or in blocks throughout the school and follows our two Science progression documents: the Science knowledge progression document and the Science skills progression document. These have been developed to ensure we show clear progression from year-to-year and that our pupils are taught in a way that builds on their prior learning and skills.

Pupils' work is stored in their books. In each classroom, our school 'Science Vision' is displayed and used by pupils and staff to evaluate our Science lessons.

We aim to immerse our pupils in Science wherever possible, through visitors and workshops in our school, external trips, involvement in live lessons and involvement in national Science events, such as Science Week and The Great Science Share.

Teaching and Learning Style

It is clear that pupils at our school enjoy Science. They speak enthusiastically about a broad range of Science learning that is happening throughout our school.

Our Science lessons are investigation-based and ensure that all pupils are exposed to the five main types of scientific investigation:

- pattern-seeking
- research
- comparative and fair-testing
- observations over time
- identifying and classifying

Pupils are encouraged to consider which of the types of enquiry they have carried out.

In Key Stage 1, teachers colour-coordinate each lesson in the books to identify which type of enquiry it demonstrates. From Year 3 onwards, pupils begin to develop the skills needed to do this process independently. Therefore, it is clear in pupil books where children have carried out the different types of investigation.

Wherever possible the investigations are pupil-led. Our pupils are provided with a wide range of opportunities to explore and ask their own questions. The children are then taught the skills needed to lead their own investigations and develop the resilience required to find out the answers to these questions.

PSQM:

We have been awarded the Primary Science Quality Mark (PSQM) in recognition of the quality of teaching, learning, leadership and the wider opportunities in Science in our school.

Science and its use in other Curriculum Areas

There are many cross-curricular links with Science and other subjects in our school. Some examples of this are:

- Use of tally charts, bar charts, Venn diagrams and graphs to record and analyse data
- Extended writing based on our Science learning e.g. biographies of scientists and instruction writing for a scientific process
- Use of ipads, laptops and Chrome books to research and record ideas
- Links to Geography, through class topics which focus on the natural world
- Historical Science – looking at how Scientific breakthroughs have changed our world
- Design and Technology – electricity
- PSHE – keeping healthy
- Collective worship – through the use of 'Picture News', we incorporate up-to-date scientific breakthroughs and discuss how these will impact upon people

Resource Provision

Science resources are kept in labelled draws in the staff room. Resources are audited yearly to check overall quantity and quality of resources. A laminated copy of the resource audit list can be found in the staff room or from the science coordinator.

Assessment and Record-Keeping

Pupils are now assessed using TAPS (Teacher Assessment in Primary Science) assessment. These assessments are carried out as part of the scheme of lessons. They offer structured, but interesting ways, to assess pupils on their learning within a given topic. Teachers use these at the point at which they fit into their topic and through targeted activities and questions. They are then used to monitor and assess pupils against end of year expectations. Data for Year 3 – 6 is input into SIMS at the end of each term.

Equal Opportunities:

At Mottram CE Primary School, we aim to give every child the opportunity to experience success in learning in Science (and all other subjects). Teachers ensure children are given opportunities to achieve as high a standard as possible to fulfil their potential by planning classroom activities to challenge and involve all children appropriately, according to age and capability, ethnic diversity, gender and language background.