



Hebden Royd C.E. (VA) Primary &
Nursery School

Science Curriculum Policy 2022

Intent

At Hebden Royd School, we seek to extend children's natural curiosity and eagerness to ask questions about the world around them, enabling them to develop and evaluate explanations through experimental evidence and modelling. Teamwork, independence, and inventiveness are embedded in our learning. We aim to provide opportunities to ensure our pupils acquire knowledge which they can retain in the long term.

As a church school, we encourage our pupils to be enquiring and curious about the wonderful world in which they live, and our work in science gives pupils of all abilities the opportunity to investigate how and why things happen.

Implementation

Science at Hebden Royd is taught throughout both key stages with some topics being revisited in later year groups to enhance their understanding. Within these topics, scientific enquiry skills are embedded to help children retain the information, increase their understanding and build on their prior knowledge.

Children are encouraged to become independent learners through the use of skills such as, observing, investigating and questioning when exploring scientific based problems. In the EYFS, children learn through play - accessing interesting resources which encourage them to ask questions - these are then recorded in their Floor Book so that they have an ongoing record of their learning. Children are encouraged to become independent learners through the use of skills such as, observing, investigating and questioning when exploring scientific based problems. We have a progression of skills so that children are not repeating the same skills thus developing them throughout their school years. Children are introduced to vocabulary linked to their topics to answer and solve problems scientifically.

EYFS

Teachers in EYFS base their teaching on objectives in the statutory framework for the early foundation stage. Young children's willingness to learn and explore should be encouraged. Scientific learning does not have to occur in a structured setting or activity. However; science learning will be achieved primarily through ensuring the enthusing of learning prior to year one via the educational programmes: physical development, personal, social and emotional development and understanding the world.

Impact

Our science curriculum is planned to ensure the children have a love for science whilst making good or better progress. This is monitored through half termly assessments, target tracker, science days and pupil interviews, which reflects our aim to achieve well in science. Our successful approach to teaching science at Hebden Royd, results in a fun, engaging and high-quality education, which encourages inquisitive children who show confidence and independence when finding out about the world around them.

Social, Moral, Spiritual and Cultural

Science contributes to our children's SMSC development through:

- Encouraging children to reflect on the wonder of the natural world.
- Awareness of the ways that Science and Technology can affect society and the environment.
- Consideration of the moral dilemmas that can result in scientific developments.
- Showing respect for differing opinions, on creation for example.
- Co-operation in practical activity.
- Raising awareness that scientific developments are the product of many.

Strategies

Our aims and purpose are taught through:

KNOWLEDGE AND UNDERSTANDING

Children should:

- Be curious about things they observe, experience and explore in the world around them using all of their senses.
- Use this experience to develop their understanding of key scientific ideas and make links between different phenomena and experiences.
- Begin to think about models to represent things they cannot directly experience.
- Try to make sense of phenomena, seeking explanations and thinking critically about claims and ideas.

PROCESS AND SKILLS

Children should:

- Acquire and refine the practical skills needed to investigate questions safely.
- Develop skills of predicting, asking questions, making inferences, concluding and evaluating based on evidence and understanding and use these skills in investigative work.
- Practical mathematical skills in real contexts.
- Learn why numerical and mathematical skills are useful and helpful to understanding.

LANGUAGE AND COMMUNICATION

Children should:

- Think creatively about Science and enjoy trying to make sense of phenomena.
- Develop language skills through talking about their work and presenting their own ideas using sustained and systematic writing of different kinds.
- Use scientific and mathematical language including technical vocabulary and conventions and draw diagrams and charts to communicate scientific ideas.
- Read non-fiction and extract information from sources such as reference books and the Internet.

VALUES AND ATTITUDES

Children should:

- Work with others, listening to their ideas and treating these with respect.
- Develop respect for evidence and evaluate critically ideas, which may not fit evidence available. Develop a respect for the environment and living things and for their own health and safety.

Assessment

Formative assessment is used to guide the progress of individual pupils in Science. It involves identifying each child's progress in each area of the Science curriculum, determining what each child has learnt and what therefore should be the next stage in his/her learning. Teachers in the course of their teaching carry out mini quizzes based on the most recent topic taught. They also assess informally through observation and discussion during lessons and the marking of written work.

At the end of each term and at the end of each academic year a level of the child's attainment is given. This assessment may be carried out through discussion and/or assessment sheets, the levels being recorded on Target Tracker in accordance with national guidelines. Reporting to parents is done termly through parents' evenings and annually through a written report.

Progression

Planning in Science is a process, which involves all teachers. This includes:

- Following the current 2014 Science Curriculum.
- All children are taught in mixed-age year groups and a 2-year rolling programme is implemented in both Key Stages. This allows progression and continuity, ensuring that new learning takes place and all the programmes of study have been addressed by the time the children have reached the end of the Key Stage.

In order for children to make progress in Science, teaching should provide opportunities for children as they move through the Key Stages to progress:

- From using everyday language to increasingly precise use of technical and scientific vocabulary, notation and symbols.
- From personal scientific knowledge in a few areas to understanding in a wider range and of links between these areas.

Resources

Central resources in Science are the responsibility of all staff. Consumables are replaced and discussions with staff determine if there are any other pieces of equipment required in order to enhance the teaching and learning of Science. Children are encouraged to value and take care of all equipment.

Use of ICT

Opportunities to use ICT to support teaching and learning will be planned for and used appropriately.

Inclusion

All children are encouraged and supported to develop their full potential in Science. Some children may require extra support in the classroom and opportunities for consolidation and reinforcement. Activities are differentiated to meet the needs of all pupils.

Equal Opportunities

All children are entitled to access to the Science curriculum in line with the school's policy for equal opportunities. Children who show a particular ability and flair for Science, who work more quickly through the levels of the National Curriculum are extended through the use of more challenging problems and investigations.

The Governing Body

Reports are made to the governing body on the progress of science provision within the school.

The Role of the Subject Lead

The co-ordinator has the responsibility to take a lead in developing science further across the school within the school's improvement plan; monitoring the effectiveness of teaching and learning; and the use of resources. All teachers are responsible for monitoring standards but the coordinator, under the direction of the headteacher takes a lead in this.

Parental Involvement

Parents are encouraged to support their own child's learning through;

- Reading and researching at home together
- Visiting places linked with the units of work
- Encouraging conversations

Review Framework

This policy will be reviewed every 3 years (or sooner in the event of revised legislation or guidance).