

DALLAM PRIMARY SCHOOL

SCIENCE POLICY

Date of this Review	April 2025
Next Review due	July 2026
Approved by Governors	
Signed by Chair Of Governors	

Dallam Community Primary School

Science Policy

Date of Policy: April 2025

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Review Date: July 2026

Intent

At Dallam Primary, children acquire key skills, knowledge and vocabulary outlined in the National Curriculum 2014 and the Early Years Foundation Profile 2021, to enable them to think and communicate scientifically and ask scientific questions. We are committed to providing as many opportunities both inside and outside the classroom as possible, to expose our children to a wide range of scientific experiences.

With a focus on the 5 strands of enquiry: Pattern seeking, research, identifying and classifying, fair testing, comparative testing and observing over time, we foster a sense of curiosity about the world in which we live, through the specific disciplines of biology, chemistry and physics.

Through our science curriculum, children develop as collaborative, independent and reflective learners. At each stage, children build upon prior learning so that they are well prepared for the next step in their education and ultimately, to make a true difference to the world they live in. Employment opportunities in Warrington have a strong STEM focus and we prepare our children for the jobs they may take in the future.

Implementation

Science is a core subject and is taught discreetly as a stand-alone subject. It is taught weekly in both key stage 1 and 2. Wherever possible, links between Science and other subjects are made.

Each year group has up to 5 units of science to teach which are taken directly from the National Curriculum and put into a long term plan. From this, teachers then form medium term plans for each unit of work based on The Education People Scheme. As part of this planning process, teachers need to use the following:

- Education People scheme to ensure objectives are in a progressive order
- Example
- Maths and statistics sheets to ensure progression in maths skills through science
- Include the 5 strands of enquiry, this is clear on the MTP, which strand is being covered in each lesson
- Each unit has a STEM focus.
- Knowledge Organisers to be used as a working document

Knowledge Organisers

A knowledge organiser is a summary of the key information children need to have an understanding of. It is used to help them remember their learning if used effectively. Each science unit has a knowledge organiser, which is displayed in the children's books. It is equally important for teachers so they can identify what a child has already learned in a particular unit, ensuring work is progressive.

A typical science lesson in KS1 and KS2

- Each lesson will start with retrieval that will either focus on vocabulary or previous knowledge. This is so children are remembering more and to help children to commit to their long term memory.
- Introducing the new learning objective or learning question, this should involve finding out what children think they already know. This could be done through using a 'Concept Cartoon' to address any misconceptions the children may have.
- There will then be an input led by the teacher and children are encouraged to engage and ask questions.
- After the input, children will then have a chance to explore through activities that are set by the class teacher. This could be using the internet, sorting pictures, using equipment etc.
- At all stages of the lesson, it is expected that teachers are monitoring, supporting and assessing children.
- Adaptive teaching will support children particularly those with SEND through appropriate tasks, pre learning and similarly extend higher ability children by providing opportunities for them to demonstrate working at greater depth.
- All lessons will end with some sort of reflection, review or discussion and an opportunity for children to think, write and talk like a scientist.
- It should be evident which enquiry strand is being covered during the lesson not only in the MTP, but in the actual lesson.

EYFS

Science in EYFS is encompassed in understanding of the world (see *EYFS policy*.) Understanding the world involves guiding children to make sense of their physical world and their community through opportunities to explore, observe and find out about people, places, technology and the environment.

In planning and guiding children's activities, teachers must reflect on the different ways that children learn and reflect these in their practice. Three characteristics of effective teaching and learning are:

- playing and exploring - children investigate and experience things, and 'have a go'.
- active learning - children concentrate and keep on trying if they encounter difficulties, and enjoy achievements.
- creating and thinking critically - children have and develop their own ideas, make links between ideas, and develop strategies for doing things.

Designated Provision

Teachers in designated provision classes plan using the same materials as stated above. This is matched to the children's ability and may not reflect the current year groups that the child is in. Children in designated provision may progress at a slower rate through the objectives than that which is expected in mainstream.

Learning Environments

Within all classrooms, there is a science area/display which has the following: area of science, the unit of science, a scientist, 5 strands of enquiry pictures, key vocabulary and a knowledge organiser as a minimum. These displays/areas should allow children to learn independently.

In EYFS there will be a weather display/station with key vocabulary and a curiosity box with questions.

Resources

All resources for teaching science are stored centrally in the resource area. Equipment is in boxes, which are clearly labelled. The expectation is all that resources are returned to this area after the lesson, neatly so that they are readily

available. Data Loggers, torches and stopwatches are the only resources which are not stored centrally-instead they are stored in the year 6 cupboard.

Marking

Children's work should be marked, if possible, alongside the children, during the lesson so AFL is imminent. Staff are to follow the whole school policy on marking. Essentially 'tickled pink' and 'green for growth' will be used to mark science work. Children are expected to respond to 'green for growth' to move their learning forward. Staff will acknowledge the child's response. Children's work should be marked with the science objective in mind.

Assessment

This is ongoing and achieved through:

- __observation of pupils
- __discussion with pupils
- __questioning
- __knowledge organisers
- __oral or written feedback
- __tracking of attainment and progress is completed termly using the agreed school format
- __prior knowledge at the start of a unit of science
- __opportunities to talk and write as a scientist
- __end of unit quiz

Progress and data is reported to parents and shared with governors termly.

Impact

The impact of what we do is then measured by the subject leader. Management time is allocated to the science subject leader so that he/she can undertake the following tasks:

- book scrutiny
- learning walks
- lesson observations
- monitoring of planning
- pupil interviews
- data analysis

As a result of good quality teaching and learning, the majority of our children achieve in line with national expectations in science. In addition to this, pupil voice indicates that science is enjoyed by pupils at Dallam.

This approach to Science at Dallam results in a fun, engaging, high-quality science education that provides children with the foundations and knowledge for understanding the world as well as rich scientific vocabulary. Children learn the possibilities for careers through science, as a result of science days, trips and the exposure to STEM based projects. Through the science curriculum, children's curiosity is promoted and they are encouraged to independently find out answers to their own questions.