



# Gorse Hill Primary School

## Science Policy

At Gorse Hill Primary School we pride ourselves in working together to do our best. We aim to provide equal opportunities for all members of our school family regardless of disability, religion, sexual orientation, culture, gender, ethnic origin, colour or age. All pupils have access to all subjects and the right to a learning environment which dispels ignorance, prejudice and stereotyping. Pupils have regular access to the Science curriculum, and the right to experience Science in a fun, stimulating, engaging, practical and meaningful way.

The National Curriculum states that '*A high-quality Science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Children should be encouraged to understand how Science can be used to explain what is occurring, predict how things will behave, and analyse causes.*'

This policy should be read in conjunction with the Teaching and Learning, Assessment and Marking and Feedback policies.



### INTENT

- All Science programmes of study follow the requirements of the National Curriculum 2014 and by the end of Y6 all children should have studied Biology, Chemistry and Physics.
- To develop a Science curriculum which offers children practical activities to suit different learning styles, new experiences, promoting curiosity, knowledge, enquiry and helps them to question and understand the world around them.
- To build a science curriculum which helps children to become enquiry based learners.
- To develop children's questioning skills to find out, explore, and observe to find out answers working scientifically.
- To develop gender equality in science and scientific experiences, so that all children may see themselves as scientists (science capital).
- We intend for children to have engagement with equipment, tools and resources that inspire them to investigate and enquire.
- To speak to our children regularly to ascertain what they are enjoying or finding challenging so that every effort can be made to continually improve our practice.
- To facilitate a love of science.



### IMPLEMENTATION

- At Gorse Hill Primary children work cross-curricularly to solve Learning Challenges, within these learning challenges the children are encouraged to pose their own questions following the National Curriculum's working scientifically key skills. The five key skills (fair testing, researching, observing over time, pattern seeking, identifying, classifying and grouping) are displayed around school and are evident in children's books. The children are aware of the key enquiry skills they are using.

- Teachers have been given a whole school map of Learning Challenges to be studied in every year group. This will assist them to recap and consolidate learning from prior year groups and also be aware of future learning goals.
- Teachers and pupils make use of floor books/Target Tracker observations to display their questions and investigations allowing more space for practical enquiry. They use the visual stimuli of what they will measure and what they will change in their investigations.
- Teachers provide clear and comprehensive units of work in line with the National Curriculum using the learning challenge curriculum. Children build on prior knowledge and link ideas together, enabling them to questions and become enquiry based learners. At Gorse Hill Primary we use the TAPS assessment materials to assess progression in working scientifically skills and a range of Active Assessment strategies. Assessments are recorded onto Target Tracker to note progress and report to stakeholders.
- Educational visits take place where applicable links to science are made to develop the children's learning. Links with local secondary schools have been made and children often enjoy scientific experiences and the use of the lab. STEM visitors, science workshops (such as zoo labs and chemistry with cabbage) and parents linked to scientific fields are also invited to share their knowledge with the children to build on the children's science capital.
- Children's work is marked in-line with GHPS Marking and Feedback Policy.



## IMPACT

- By the end of KS2, we want children have secure scientific knowledge and understanding of the world in which they live through the specific disciplines of biology, chemistry and physics.
- They should have and understanding of the nature, processes and methods of science through different types of science enquires that help them to answer scientific questions about the world around themselves.
- There will be progression across all key stages within the strands of the Science National Curriculum.
- Children will have developed a love of science and see themselves as scientists.



## ASSESSMENT

- Ongoing assessment are made by the teachers using Assessment For Learning, Active Assessment strategies and use of Explorify to determine children's starting points and misconceptions at the beginning and end of each topic. This may look different per class, year group and age phase allowing teachers' confidence and skills to assess and plan for the class they teach.
- Teachers' use TAPS (Teacher Assessment in Primary Science assessment materials) at the end of a unit to support their judgements on if the children have met/not met/exceeding the learning objectives.
- Children's work will be marked according to the learning challenge question for that lesson and the child's own specific target for improvement. Work is marked in line with the Pupil Feedback and Marking Policy.
- Work is monitored and moderated by the subject leader and also at subject leader network meetings which are led by SEERIH (Science and Engineering Education Research and Innovation Hub) termly. This gives opportunity for cross school moderation with Trafford.