

'The important thing is to never stop questioning.' (Albert Einstein)



Science at Clapgate



'Somewhere, something incredible is waiting to be known.' (Carl Sagan)

Vision

All children at Clapgate will experience the joy of being a scientist and will make good progress. Science lessons will nurture and develop a culture of curiosity where pupils are given the freedom to experiment and investigate in order to ask and answer questions about the world (and universe) we live in.

Vocabulary

Our science lessons develop vocabulary and oracy through partner talk, group work and whole class discussions. Children are expected to develop their own questions and use relevant scientific vocabulary when speaking and writing about their experiments.

Our pupils engage in speaking and listening through the use of talk partners and outdoor learning.

Keep up and catch up

Through formative assessment we identify children who are at risk of developing gaps in their learning and address these within lessons, or through interventions.

SEND

There is no glass ceiling in our science lessons. All children are taught through the EPIBA approach, meaning that prior learning and misconceptions are addressed in every lesson to prevent gaps in knowledge developing. Through regular assessment for learning, scaffolds are applied where necessary allowing every child to succeed. Mixed ability groups are used to enable all children to take an active role in experiments.

We understand the important role science plays in our pupils' education and the wider world. We work on developing their scientific capital through providing a range of scientific opportunities beyond the classroom. Teachers regularly use outdoor learning to teach science and pupils benefit from the brilliant grounds we have, including our allotment and campfire area. Pupils at Clapgate also have access to weekly chemistry club, trips and visitors, and annual science week opportunities, including a science fair. We ensure that all pupils make progress by carefully sequencing the learning so children's understanding of scientific skills and knowledge are built on and links are made to make learning 'stick'.

Our science teaching is underlined by our principles:

- Lessons promote reasoning skills, resilience and the use of scientific vocabulary.
- Lessons are practical, experiment based, accessible for all and child-led.
- Lessons are active and take place outdoors.
- Misconceptions are addressed.
- Children are engaged and teachers are enthusiastic.
- Children are curious and make good progress.



Assessment

Alongside regular formative assessment, we use low stakes CGP tests to support our summative assessment judgements. Assessment for learning is recorded in short term planning to show any pupils that were working BARE or who were absent from a lesson. Progress is difficult to measure in science as pupils are either working at expected levels for their age or below expected levels for their age. There is no opportunity for greater depth in science. If a pupil has a gap in their knowledge in a content area that will not be covered again in their primary education, they must be assessed as working below their age related expectations, even if they are working at in other areas of the curriculum.