



Science at Essex

Intent

We believe inspiring science teaching enables pupils to

- Ask questions independently to develop scientific knowledge and skills
- Plan and carry out scientific investigations using a range of practical skills, making predictions and analysing results
- Apply prior scientific knowledge and skills flexibly and with imagination when approaching a challenge, problem or concept
- Demonstrate scientific findings rationally in a range of ways
- Show a passion and excitement for the ways that science has, and will continue to change the world
- Understand and define the different disciplines of science (biology, chemistry and physics) and how they impact the world around us
- Apply their science skills in other areas of the curriculum
- Develop a range of skills, scientific knowledge and conceptual understanding to a level where they can be used to understand the uses and implications of science, today and for the future

Implementation

We know that practical, hands-on investigation is essential to a pupil's understanding, and that teaching can be delivered with inspiration and innovation. To this end, Essex Primary School blends the Hamilton Trust and PLAN science resources to create an enquiry based, skills centred curriculum which is full of hands-on experiments, creative investigations and new approaches to traditional topics.

Each year is organised into six units, providing half a term's work. Topics are divided into flexible units which can be adapted to fit the individual class, and the cross-curricular nature of our teaching is supported by links to literacy, maths and information technology. We have also invested in new resources and equipment to support the new topics, including a bespoke science laboratory.

The practices we have embedded in our curriculum and teaching of science allows pupils to experience what science is like in the real world. Forest school, Science Day, continued CPD and engaging with professionals in science fields has brought science to life in a real way. Pupils are keen to pursue the study of STEM topics and are better able to understand the myriad of science careers that are available to them.

Impact

Outstanding teaching and learning practices are embedded at the core of Essex science lessons. Pupil voice questionnaires, continued CPD, monitoring of teaching and pupils' work as well as subject specific assessments provides pupils with the much needed foundation on which they can build their scientific knowledge ready for the next stage in their education.

Enrichment

In addition to their mainstream teaching, pupils are invited to participate in exciting school-wide science investigations and projects. 'Science Ambassadors' are year 5 and 6 pupils who aim to promote science across the school through 'science busking' and using their expertise in different year group settings.

Our Science Week activities encourage families to work together at home and allow the pupils to share what they have been learning at school.

Finally, we are the lead school of an Ogden School Partnership, which has developed exceptional science links with 3 local schools, including a local secondary school. Through this we have been able to better embed science in our wider community through shows, science fairs, competitions and cross partnership trips.