

## **Science at Langton School**

Science at Langton is taught by a specialist science teacher with the emphasis on practical based science, to develop the children's practical skills and broaden their scientific view of the world around them. At Langton, we feel that with 20% of all future employment involving STEM related subjects, it is important that our children are exposed to as many science topics as possible, to engage their thirst for learning, early on in their academic journey.

Our children are given plenty of opportunity to ask their own questions about what they observe and to make some decisions about which type of scientific enquiry to use. They focus on observing changes, noticing patterns, grouping and classifying and carrying out comparative and fair tests. They are asked to draw conclusions and to try and use scientific language, wherever possible, as they talk and then write about what they have found.

### **Planning**

Lessons are planned using material from a variety of sources. These include the National STEM Centre, NYCC, CIEC, Topical Science, RSC Cross Curricular Resources, Terrific Science (BBC) and Explorify. Over time a scheme of work has been developed to bring these materials together and to act as a guide for topic coverage. Based on the lower and upper Key Stage 2 programme of study, the scheme of work meets the knowledge and understanding required for each topic, gives the children every opportunity to work scientifically and more importantly, allows for pupil progression.

### **Assessment**

Assessment occurs termly to assess the quality of teaching and to determine any gaps in the children's knowledge. This assessment can take the form of end of topic tests or as a practical assessment, designed to assess their developing practical skills and their ability to use their topic knowledge to work scientifically. Any assessment is used by the teacher to inform and adapt future planning for that class and to alter any areas within the scheme of work that need consideration.

### **Resources**

Over time a variety of resources have been collected and developed to aid the teaching of science at Langton. Our children wear their lab coats whenever possible to protect their clothing and enjoy the 'feel' of being a 'hands-on' scientist in their white coats. Our science lessons are very practical based, so a considerable amount of time is used to find appropriate resources for practical sessions that are cost effective, meet the needs of the lesson and are safe for the children to use. All resources are stored carefully, kept clean and

follow the safety guidelines for science in a primary school setting, (Cleapss, ASE and Safety in Science Education DFEE 1996)

### **CPD**

The science teacher annually attends The Primary Science Network Meeting. Training has also been given on 'Supermarket Science' helping to give ideas for resourcing science equipment and experiment ideas. The National STEM centre is often used as a guide and source of equipment and advice. We have completed the Polar Explorer Programme. This enriched the teaching of STEM subjects within our school and allowed the children to be part of the launch of the polar research ship RRS Sir David Attenborough and the polar exploration in general. We are currently embarking on Project Enthuse with our neighbouring small schools, hoping to work collaboratively to further improve our teaching and learning in science.

### **Marking/Feedback**

Science books are marked after each lesson and written feedback given. Verbal feedback is an essential part of practical work and allows for the children to learn as they work.

### **Scrutiny**

Books are regularly checked and the science teacher is observed termly by the Headteacher with feedback given.

### **Parental Support**

Our sciences lessons are hugely supported by the parent's at Langton School. They are often asked to collect resources such as cardboard, yoghurt pots etc and always rise to the challenge. They have even been asked to loan an occasional sieve or coat hanger! Parents are keen to accompany children to science events and our amazing FoLS (parent association) have supported our lessons by the purchase of our class sets of lab coats.

### **Events**

Our school has attended STEM events hosted at our neighbouring secondary school and was invited to view the National STEM Centre in York. We regularly visit Malton School for science afternoons where the children have the opportunity to tackle practical sessions based on their current topic. These practical afternoons give children the chance to use practical equipment that is not available to us at Langton. They see a true school lab set up and more importantly, are exposed to life inside a secondary school setting.