Science

Subject Intent

Our children will explore science through the three distinct disciplines of biology, chemistry and physics. Our Science curriculum is designed to create a generation of children who understand how science has changed and shaped the world that we live in, whilst also considering the impact that science may have on our future. We want this to fuel our children's desire to develop their understanding of the world and natural phenomena. Our children will become scientists by being encouraged to predict, explore and analyse how and why things happen, whilst developing a core of scientific knowledge that we will be developed year-upon-year.

Aims for Science

For our children to develop an excitement to learn more about how science has impacted and will impact our lives in the future.

For our children to understand and explore the three disciplines of biology, chemistry and physics.

For our children to work scientifically to explore different concepts and answer questions.

To build on their understanding in previous lessons/years as the children progress through our school.

To develop our Science Capital.

Coverage in KS1

Our children begin their journey as scientists by making observations, pattern seeking and grouping different objects. They are encouraged to ask and answer questions about the world around them. They will acquire key knowledge in topics such as plants, animals and everyday materials and be able to use this to explain their thinking.

Coverage in KS2

Our children will develop the knowledge that they acquired in KS1. They will build on their understanding of plants by developing an understanding of the function, role and what plants need in order to survive and thrive. Our children will explore the human body by developing an understanding of the key functions of our skeleton and teeth. They will also learn how the circulatory and digestive systems work and the importance of having a nutritional diet. Our children will also develop an understanding of light, sound, electricity and states of matter.

Scheme/Summary of approach used

We have recently implemented the 'Kapow' Science Curriculum into our provision. This has provided us with a stronger structure to our science provision and has improved our provision as a result, as it is aligned to the National Curriculum. All of our classes will complete a unit of science during each half term and we are allocating, on average an hour and a half, to teaching science each week. Our new curriculum structure uses a spiral approach that improves our children's understanding by revisiting and developing new skills and knowledge with an increasing complexity. All our lessons are designed to spark 'awe and wonder' in our children by providing them with a number of opportunities to be 'hands on' in their learning. Our children are encouraged to explore and respond to setbacks during each practical lesson, rather than being given all of the answers from our teachers. Each classroom has our '5 types of enquiry' posters on display on the classes' science walls and teachers will refer to this to consolidate the type of enquiry that is taking place. At the end of each unit of work, all the children will complete a 'hot task' that assesses the learning that has taken place during that particular unit. Our teachers are then able to use this, along with the observations that they have made during the lessons, to make an accurate assessment on the children's current level of attainment. In order to promote science within our school, we have recently ordered new science books, resulting in all of the science work being recorded one place.