

Science Intent

At St Patrick's CE School, we value the importance of science as a core subject. There is evidence to show that children's interest in science is shaped before they leave primary school, so it is vital that our children continue to develop their latent interest and enthusiasm for exploring the world around them and the science that underpins this.



Implementation

Our aim is for our children to be inspired in their science lessons. We want to nurture their innate curiosity and enable them to build up their scientific knowledge of the world and develop a range of skills that are useful across their learning.

In order to teach science knowledge and skills successfully, good planning for teaching and assessment of learning is key. Assessment is an ongoing activity that starts with teachers' lesson planning. To plan successfully, it is important to understand what the children have been taught previously that links to the topics and related statements from the science National Curriculum that will be taught in the coming year. The Knowledge progression that we use indicates where content that is linked to those topics and statements for each year has been taught in previous years.

Having identified the linked content from previous years, this information can be used to plan initial activities to engage that prior learning. When planning a science topic, we look at the examples of work for previous years to identify suitable activities that could be used to remind children of their prior learning.

It is also good practice to check tracking data to identify children that were not secure when the linked learning was taught. Specific attention is given to these children during the initial activity to ensure they are now secure.

It is important to be clear about the key learning, vocabulary and working scientifically skills that the children need to acquire. The knowledge matrices and working

scientifically matrices we use provide this information. Activities can be selected that will best support the children to become secure in the knowledge and skills.

When children have engaged in sufficient activities to have become secure in the required knowledge, it is time to reflect on their learning. The examples of work we use show the learning of one child that is secure in the required knowledge that can be used as a benchmark against which to assess children's work.

Children that are not secure are then given additional activities to provide them with further opportunities to show that they are secure, possibly gathering evidence in a different way for example verbally in a small group context. Children that are secure are given enrichment activities to broaden their thinking, while being careful not to stray into the content taught in later years. This can easily be checked by looking at the progression map.

To assess the working scientifically skills of children, we observe their execution of skills that have been previously modelled and take note of those children who are not secure in using them.

If children are still not secure in the knowledge and skills, further opportunities are provided, later in the year, for them to revisit them.

As we have mixed aged classes, we follow a two-year rolling programme which ensures good curriculum coverage and enables us to teach the requirements of the National Curriculum effectively. Teachers also use the planning for individual year group key learning, vocabulary and working scientifically skills to ensure children meet the expected standard in science.

