



SCIENCE INTENT, IMPLEMENTATION & IMPACT

Intent

The science curriculum at North Wingfield Primary and Nursey Academy is to encourage children to be inquisitive throughout their time at school and beyond. The science curriculum through the programs of study encompasses the acquisition of knowledge, concepts, skills and positive attitudes. Children will develop key knowledge that has been identified within each unit and across each year group. The key knowledge identified by each year group is informed by the national curriculum and key skills are mapped for each year group that are progressive throughout the school including working scientifically.

The curriculum is designed to ensure children can acquire key scientific knowledge through practical experiences, using equipment, conducting experiments and explaining concepts confidently.

Implementation

At North Wingfield Primary and Nursey Academy science will be taught for 1 and a half hours in Key Stage 1 and two hours per week in Key Stage 2. This will be instead of being taught as a whole block so that children will have a greater depth of knowledge and time to apply their scientific skills.

Existing knowledge is checked at the beginning of each topic and explorfy is used to address children's misconceptions in knowledge using the current COVID situation. Existing knowledge ensures teaching is informed by children starting points.

In each group for each topic covered, objectives are on the planning and highlighted when they are covered and taught to show the progression of skills and the knowledge taught from the programs of study. Throughout planning key vocabulary is included and taught to ensure understanding and progression.

Tasks are selected to provide appropriate challenge to all learners in line with the school's commitment to inclusions, to enthuse children and develop knowledge and understanding. Evidence is presented in a variety of ways including post it notes, recorded, written, diagrams and charts.

Working scientifically skills are promoted within lessons to ensure skills are developed and progressive. Explorify is used and teachers are given an enquiry map to develop each scientific skill through different activities. Working walls are in place with key vocabulary displayed, modelled work, scientific enquiry skill cards of the 5 areas so children understand what skill they are working on within lessons. Children have the opportunity to develop their skills further by using the scientific enquiry wheel which enables all children to be scientists.

Questions of what a working scientifically scientist is or each year group are displayed on working walls with I can statements for the children to refer to.

Children have been offered some extracurricular activities to broaden the curriculum including clay creatures and sublime science.

Regular events such as British Science Week and websites such as Terrific Science, BP, Science Sparks allow children to apply their knowledge and skills as well as at least 1 investigation being taught each half term in each year group.

Impact

The approaches at North Wingfield Primary and Nursery Academy provide engaging, quality science lessons where children acquire knowledge for understanding the world. Through various real-life contexts in 'explorify', outreach reporter, investigations and stem children are developing an understanding of how science has changed our lives and is vital in our world today. It enables pupils to make key links and understand how science is used in our everyday lives.