



Intent

The aim of the science curriculum at North Wingfield Primary and Nursey Academy is to encourage children to be inquisitive throughout 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 out 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, the use of 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 per week 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 explorify is used to address children's misconceptions in knowledge. Existing knowledge ensures teaching is informed by children's starting points.

In foundation stage, children use all their senses to explore a range of materials with different properties (both indoor and out) and explore the natural world around them.

In each group for each topic covered, objectives on the planning are 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 inclusion, to enthuse and challenge children and to develop knowledge and understanding. Evidence is presented in a variety of ways including post it notes, recordings, written work, diagrams and charts.

Scientific 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 skills through different activities. Working walls are in place in each classroom (Year 1 – Year 6) with key vocabulary displayed, examples of modelled work, and the five key skills of scientific enquiry, so children understand what skill they are working on within each lesson. Children have the opportunity to develop their skills further by using the scientific enquiry wheel, which enables all children to be scientists.

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 support from websites including Terrific Science, BP, and Science Sparks allow children to apply their knowledge and skills. At least one investigation is 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, stem, and science clubs, children are developing an understanding of how science has changed our lives and is vital in our world today. Science enables pupils to make key links and understand how science is experienced in our daily lives.