

Topics

Topics are taken from the Developing Experts online scheme. These are a variety of topics throughout the school that cover core curriculum content. They follow the National Curriculum objectives on single year programme. Science is taught as a stand alone lesson, and may not follow the Cornerstones topic currently being taught. Children are taught in single year groups by either a teacher or teaching assistant.

Walton's approach to Science for KS1 and KS2

Retrieval

Prior to starting any Science topic the teacher asks the class about what they **know**, what do you **want** to learn and what they have previously **learnt**.

This allows the children to activate prior knowledge, develop a purpose for learning through interests and summarising what they have learnt.

Seating

Children work in pairs or groups for the majority of each lesson. Pairings are selected carefully by teachers to ensure that children can support and encourage one another. Lower ability children benefit from the support of a more able scientist and the more able benefit from having to explain their observations.

Subject knowledge

Many science subject knowledge online CPD sessions are identified with links on the Science SharePoint, for teachers and teaching assistants to access prior to teaching a topic. Knowledge organisers and related topic words to support them whilst the topic is taught. Once a term the teachers will expose the children to a lesson on previously learnt content to assess how much knowledge has been retained.

Lesson content

The children will be exposed to at least 1 science lesson every week. Lessons will either be based on scientific subject knowledge or exploration through experiments and investigations—this is identified in the Developing Experts plans. The children will be provided with opportunities to ask questions, predict, plan, observe, interpret and evaluate through practical and hands on activities with engaging and appropriate resources. The children are given 5 'Rocket Words' each week that link to the focus of the lesson. These are then displayed in the classroom throughout the week for recapping.

Assessment and identifying gaps

The children will complete an assessment at the end of each topic. Through termly assessments on Sonar, the children who need additional support can be easily identified. Within the next term/topic, one lesson will be dedicated to prior knowledge retrieval. Within this session, gaps from the previous topic will be addressed.

Greater Depth

Throughout the lessons, we challenge children towards greater depth using questioning. These are usually through providing more depth and reasoning to their answers being able to explain their findings using scientific language.

EYFS

Children in EYFS are given opportunities to explore and investigate scientific concepts through direct teaching and continuous provision. These opportunities are enhanced in their access to Forest School for one afternoon per week, for 3 half terms throughout the year. In Reception, planning is guided by Developing Experts but will be adapted by the class teacher to meet the needs and interests of the children.