Science at Cranford Park CE Primary School

What We Do	Why We Do It
Assessment of Prior Learning	Before each topic begins, teachers will assess the 'Prior Learning' (See progression document and details on planning) to ensure that children are deepening their knowledge from a secure foundation. This could take the form of a discussion/debate, a quiz, drama, labelling. This supports staff to identify any gaps which need to be addressed as the topic progresses.
Revisiting 'Sticky Knowledge'	At the beginning of each lesson, or during a spare few minutes throughout the day, the teacher will 'revisit' key sticky knowledge from a previous Science topic taught that year. This ensures important knowledge is retained and memorised.
Activities assess understanding and are practical, engaging and fun	Methods of learning are practical and engage children in a variety of activities which allow them to demonstrate their understanding. Children use practical apparatus, videos, photographs and models to bring the Science to life. Activities include opportunities to: • show curiosity and ask questions • make observations using their senses and simple equipment • make direct comparisons • use equipment to measure • record their observations by drawing, taking photographs, using sorting rings or boxes and, in Reception, on simple tick sheets • use their observations to help them to answer their questions • talk about what they are doing and have found out • identify, sort and group.
Oracy and Discussion	A strong element of oracy will exist in every lesson. This will support children to learn and use relevant scientific vocabulary and to explain new concepts. Vocabulary is introduced specifically. In whole class discussion, children are encouraged to articulate their understanding of key concepts, allowing the teacher to assess whether any misconceptions have occurred. This approach allows children to become reflective learners as they listen and respond to other children. We apply 'Agree Build Challenge' (ABC) to help the children structure their responses.
Working Scientifically	Children are given opportunities to work scientifically in every lesson in order to develop skills in working scientifically. These may include: • Asking questions and recognising that they can be answered in different ways • Making observations and taking measurements • Engaging in practical enquiry to answer questions • Recording and presenting evidence • Answering questions and concluding • Evaluating and raising further questions and predictions • Communicating their findings.
Outdoor Learning	Where possible, objectives are covered through outdoor learning activities. For example, living things and habitats, plants, animals.

Child-led	Within each topic, children will have an opportunity to ask their own scientific questions and explore their own ideas. This develops their sense of natural curiosity and encourages inquisitive minds.
Knowledge Organisers	Knowledge Organisers are used for each topic to map out key vocabulary, key facts, key concepts etc. These are shared at the start of each topic. Children review their prior knowledge at the start of a topic, highlighting the sheet. As the work progresses, children highlight and annotate their sheets to reflect upon and self-assess their growing body of knowledge. This also serves as a reminder of the 'sticky knowledge' we expect children to learn within a theme.
Evidence of Learning	Children from Year 2 onwards have a Science Book to record key learning. Year 1 have a class floor book and an individual folder. Learning is evidenced through photographs of the child at work, assessment activities (diagrams, methods, charts and graphs, tables, conclusions, think bubbles, mind-maps, leaflets, posters, cartoon strips, etc.) along with reflections on learning/'memorable moments' (journaling). The Science Books move up with the children to provide a progression of knowledge.
Celebrating Diversity	Teachers maintain awareness of diversity when presenting resources, such as photographs and library books. An annual 'Science Week' provides an opportunity for children to learn about the work of scientists from different cultures, including forgotten heroes, such as Katherine Johnson and Lewis Latimer.
Opportunities for Spiritual Development	Throughout our science studies, we seek to develop curiosity and raise children's aspirations to explore and appreciate the world around them. This provides opportunities for spiritual development as we appreciate the beauty of God's creation.
Liaison	The Science leader liaises with others outside of the school and keeps up to date with research to ensure that ideas are current. During the Science Week, children have an opportunity to work with a range of age groups throughout the school or beyond.
World of Work	Science careers are explored during Science Week and children have a chance to hear from visitors who use Science as a large part of their profession.