

# Beckley CE Primary School

## Science Curriculum Statement



'Let your light shine' Matthew 5:16

### Intent – What we are trying to achieve?

- At Beckley CE Primary School, in conjunction with the aims of the National Curriculum, our Science teaching offers opportunities for children to:
  - Develop scientific knowledge and conceptual understanding through the specific disciplines of Biology, Chemistry and Physics;
  - Develop understanding of the nature, processes and methods of Science through different types of science enquiries that help them to answer scientific questions about the world around them;
  - Become **successful learners** with the scientific knowledge required to understand the uses and implications of Science, today and for the future.
  - Develop the essential scientific enquiry skills to deepen their scientific knowledge.
  - As **confident individuals**, use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including ICT, diagrams, graphs and charts.
  - Develop a respect for the materials and equipment they handle with regard to their own, and other children's safety.
  - Develop an enthusiasm and enjoyment of scientific learning and discovery.
  - Develop a natural curiosity of the child, encourage respect for living organisms and the physical environment and provide opportunities for critical evaluation of evidence.
- We encourage children to be inquisitive throughout their time at the school and beyond. The Science curriculum supports pupils to become **caring citizens**, developing a healthy curiosity about our universe and promoting respect for the living and non-living.
- We believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes. Throughout the programmes of study, the children will acquire and develop the key knowledge that identified within each unit and across each year group. The key knowledge is informed by the national curriculum and builds towards identified phase 'end points' in accordance with NC expectations.
- Key skills are mapped for each year group and are progressive throughout the school. These too ensure systematic progression to identified skills end points which are in accordance with the Working Scientifically skills expectations of the national curriculum.
- The curriculum is designed to ensure that children are able to acquire key scientific knowledge through practical experiences; using equipment, conducting experiments, building arguments and explaining concepts confidently.
- The school's approach to science takes account of the school's own context, ensuring access to people with specialist expertise and places of scientific interest as part of the school's commitment to learning outside the classroom.
- Cross-curricular opportunities are identified, mapped and planned to ensure contextual relevance.
- Children are encouraged to ask questions and be curious about their surroundings and a love of science is nurtured through a whole school ethos and a varied science curriculum.

### Implementation – How do we translate our vision into practice?

- The National Curriculum provides a structure and skill development for the science curriculum being taught throughout the school, which is now linked, where possible to the theme topics to provide a creative scheme of work, which reflects a balanced programme of study.
- Science is planned and taught in arranged topic blocks by the class teacher, creating opportunities for pupils to develop a greater depth of knowledge.
- Planning involves problem-solving opportunities that allow pupils to find out for themselves, developing enquiry and opportunities to use their scientific skills to discover answers.

- We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.
- Working Scientifically skills are embedded into lessons to ensure these skills are being developed throughout the pupil's time at school, with new vocabulary and challenging concepts introduced through direct teaching.
- Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning and workshops with experts.
- Regular events, such as Science Week or project days allow all pupils to come off-timetable, to provide broader provision and the acquisition and application of knowledge and skills. These events often involve families and the wider community.
- At the end of each topic, key knowledge is reviewed by the children and rigorously checked by the teacher and consolidated as necessary.

### **Impact – What is the impact of our curriculum on the students?**

- The successful approach at Beckley Primary results in a fun, engaging, high-quality science education, that provides children with the foundations for understanding the world.
- Our engagement with the local environment ensures that children learn through varied and first hand experiences of the world around them. So much of science lends itself to outdoor learning and so we provide children with opportunities to experience this.
- Through various workshops, trips and interactions with experts and local charities, children have the understanding that science has changed our lives and that it is vital to the world's future prosperity.