

## **Science: Intent, Implementation and Impact (July 2020)**

### **Intent**

Bayford's vision is to distil a lifelong love of science within our pupils, we want them to be inquisitive, explore and question the world around them. Science has changed our lives and is vital to the world's future prosperity therefore we are developing our STEM curriculum so that there are strong links between Science, Technology, Engineering and the Maths curriculum. We believe that Computer Science has a large part to play in our curriculum and the children's understanding of the world around them. The children will have a clear understanding of what is meant by Biology, Chemistry and Physics and how they fit with our everyday understanding of the world. We work hard to provide a rich and varied curriculum to challenge and meet the needs of our children. We believe all pupils should be taught the skills of working scientifically and the essential aspects of the knowledge, methods, processes and uses of science. From EYFS up to KS2 our pupils will build up a body of key foundational knowledge and concepts, pupils are encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. We provide our children with wider opportunities in science with educational visits and make links to other subjects. We challenge pupils on a weekly basis to develop the progressive working scientifically skills to explore and embed the knowledge and is unique to our school and our needs. We monitor our schools progress in science regularly in line with our science policy.

The national curriculum for science aims to ensure that all pupils:

- 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
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future

### **Implementation**

We are developing a high level of subject knowledge of science in our school by introducing training and professional development. In our school we strongly encourage all pupils to use specific topic related vocabulary. Through effective teaching of science, we develop children's knowledge and key skills during each topic. With effective subject management we are a well-equipped and resourced school. Regular monitoring shows that our children are developing an understanding of key scientific principles within their work which they are starting to apply. Children are provided with regular opportunities to develop strategies for questioning and thinking. In our school we have a rigorous monitoring process which is kept up to date and works towards our school improvement plan.

Children will be provided with a broad and balanced science curriculum which reflects the equality and diversity practice in school. Teachers will ensure



## **Staff Development**

Staff training during staff meetings, mentoring, peer observations, training courses and online CPD through ReachCPD. Science lead attends regular Ogden Trust meetings and cluster meetings to keep up to date with changes to the curriculum. Teachers are placed on relevant training courses and have received free resources through these meetings.

## **Impact**

Science resource cupboard is kept tidy and up to date with a current list of resources provided. Teachers are asked prior to each year for any new resources they may need to effectively teach their topics.

Teaching of Science results in a fun, engaging, high quality science education which provides children with the foundations for understanding the world around them.

Children will be able to articulate their understanding of different scientific concepts and can reason scientifically using appropriate scientific vocabulary. They will demonstrate a love in science work and retain their knowledge of Science throughout the school, referring back to previous learning where suitable.