Science at Clifton Primary School

INTENT –

At Clifton Primary School, we recognise the importance of science in every aspect of daily life. As one of the core subjects taught in Primary Schools, we give the teaching and learning of science the prominence it requires. We intend to provide a rich and varied science curriculum that is not dry and test-driven.

The scientific area of learning is concerned with increasing pupils' knowledge and understanding of our world, and with developing skills associated with science as a process of enquiry. It will develop the natural curiosity of the child, encourage respect for living organisms and the physical environment and provide opportunities for critical evaluation of evidence.

At Clifton 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;
- be equipped 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;
- use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including computing, 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.

The National Curriculum will provide a structure and skill development for the science curriculum being taught throughout the school, which is now linked, where possible to our topics to provide a creative scheme of work, which reflects a balanced programme of study.

At Clifton Primary School:
Children have weekly lessons in science throughout Key Stage 1 and 2, using a programme of study and resources. In our Early Years Foundation Stage, science is taught through the children learning about the world around them in their learning through play and continuous provision of excellent activities and questioning. Additional opportunities are available for the children at Clifton Primary School through science days for children, science festivals, and educational visits linked to the science curriculum and visitors to school.

We endeavour to ensure that the science curriculum we provide will give children the confidence and motivation to continue to further develop their skills into the next stage of their education and life experiences.

IMPLEMENTATION –

Teachers present a broad and balanced science curriculum, which visibly encourages discussion and engagement. Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science. Our whole school approach to the teaching and learning of science involves the following:

- Science will be taught in planned and arranged units by the class teacher. This is a strategy to enable the achievement of a greater depth of knowledge.
- Through our planning, we include problem-solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own science questions and they are given opportunities to use their scientific skills and research techniques to discover the answers. This curiosity is celebrated within the classroom. Planning involves teachers creating engaging lessons, often involving high-quality resources to aid understanding of conceptual knowledge. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning, so that all children keep up.
- 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 children's school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in keeping with the topics.
- Teachers demonstrate how to use scientific equipment, and the various working scientifically skills in order to embed scientific understanding.

IMPACT –

The successful approach at Clifton Primary School results in a fun, engaging, high-quality science education, which provides children with the foundations for understanding the world. Learners will develop their knowledge and skills in science and have the confidence to question the world around them. Our engagement in practical activities and with the local environment ensures that children learn through varied and first hand experiences. So much of science lends itself to outdoor learning and so we provide children with opportunities to experience this in our school grounds and on trips out when the occasion arises. Children learn about the possibilities for careers in science and engineering as a result of our community links and connections with BAE and the Lancashire Science Festival. We have chosen Science Ambassadors in our classrooms that help with sharing pupil's views and their work. Both of which are used to further develop the science curriculum. Through the questioning of pupil's views and attitudes towards science, we are able to assess

the impact of the science teaching/curriculum and we are therefore able to adapt, motivate and support our learners in the future.