Chase Side Primary School

Intent, Implementation and Impact

SCIENCE AT CHASE SIDE

A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. (National curriculum 2014)

Intent – What we are trying to achieve?

At Chase Side, it is our intent to build an environment which promotes curiosity, encouraging children to question the world around them. We value the teaching and learning of Science and strive to prepare our children for the future. The Scientific area of learning allows children to revisit and add to their previous knowledge, whilst also developing their technical and analytical skills. This allows the children to demonstrate their knowledge of Science through planning investigations, using equipment and explaining new concepts. We intend to build an engaging and inclusive Science curriculum, which fosters the children's natural curiosity, through a balance of teacher and child led enquiry.

Implementation – How do we translate our vision into practice?

Teachers create a learning environment which promotes a positive attitude towards Science within their classrooms. Our whole school approach is as follows:

- Science will be taught in planned topic blocks, ensuring equal emphasis across biology, chemistry and physics. Where appropriate, specific units may be re-arranged to coincide with a time of year, such as learning about seed growth in Spring. This encourages the children to make connections with the world around them in real time. Prior learning will be revisited to strengthen the children's current knowledge, before adding to it. This prevents gaps forming and allows clear progression to be seen across the school.
- Regular assessment will be conducted to ensure continued progress and attainment throughout the year.
- Teachers will introduce and encourage accurate use of scientific vocabulary in each topic, which the children should be able to apply to their written and oral work.
- Importance will be placed on forming a secure grasp of scientific concepts and being able to apply them to other contexts. This will be achieved through planned opportunities that encourage critical thinking through practical applications and discussion. Where possible, Science will be interlinked with other subjects, such as the use of statistics in Maths.
- Extra-curricular opportunities such as local science competitions, school trips and visitors, will be arranged to further inform and inspire our children.
- Activities, such as Science week and inter-year group competitions, will be held to raise the profile of Science across the school. We will also make use of our outdoor facilities, such as the school garden, to create an engaging learning environment.

Children will learn about scientists and inventors from a diverse range of backgrounds, to ensure an inclusive curriculum, where all children are represented.

Impact – What is the impact of the curriculum on our pupils?

We believe the successful application of our ethos and curriculum will lead to the following results:

- Children will have a tighter understanding of key scientific concepts. They will be able to make appropriate language choices to explain these concepts in detail. They will also understand how these concepts apply to the world around them.
- Children will be able to apply higher order thinking to join discussions that challenge existing ideas.
- Progression of practical skills and scientific knowledge will be seen across all thee strands of science. Children will demonstrate competent use of equipment, through regular exposure.

- Children will form their own scientific enquiry questions, which they will then plan and investigate collaboratively. When reporting their findings, they will apply mathematical skills, such as interpreting data, in context.
- All children will have a positive attitude towards Science. They will see it as an accessible industry where they feel represented. This will inspire confidence in a wider range of children to pursue science, technology, engineering and maths relater careers in the future.