**Intent**

At St Clare’s, all children will be provided with a broad and balanced science curriculum which reflects the equality and diversity practice in school. Our intention is to provide a high quality science education that offers children the fundamentals they need to recognise the importance of Science in every aspect of daily life.

Our curriculum will enable children to become enquiry based learners collaborating through researching, investigating and evaluating experiences. Teachers will ensure that all children are exposed to high quality teaching and learning experiences, they will be encouraged to ask questions about the world around them and work scientifically to further their conceptual understanding and scientific knowledge.

Children will be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and investigate causes. It will deliver opportunities for the critical evaluation of evidence and rational explanation of scientific phenomena as well as opportunity to apply their mathematical knowledge to their understanding of science, including gathering, presenting and analysing data. Children will be immersed in key scientific vocabulary, which supports in the acquisition of scientific knowledge and understanding.

### Science Implementation

At St Clare’s, Science topics are taught within each year group in accordance with the National Curriculum.

* Topics are blocked half termly to allow children to focus on developing their knowledge and skills, studying each topic in depth.
* Every year group will build upon the learning from prior year groups therefore developing depth of understanding and progression of skills.
* Children explore, question, predict, plan, carry out investigations and observations as well as conclude their findings.
* Children present their findings and learning using science specific language, observations and diagrams.
* In order to support children in their metacognition, there are regular opportunities to review the learning taken place in previous topics as well as previous lessons and previous years.
* At the start of each topic children will have the opportunity to share what they already know about a current topic through the use of concept maps. These are then added to with new learning as the topic progresses.
* Children are given a knowledge organiser at the start of each topic which details some key Science Curriculum Statement information, dates and vocabulary. This is not used as part of an assessment, but to support children with their acquisition of knowledge and are used as a reference document.
* Effective CPD and standardisation opportunities are available to staff to ensure high levels of confidence and knowledge are maintained.
* To support teaching, teachers access a range of resources and planning from Developing experts, Hamilton trust and ASE PLAN.
* Effective use of education visits and visitors, including STEM Ambassadors, are planned, to enrich and enhance the pupil’s learning experiences within the Science curriculum.

Effective modelling by teachers ensures that children are able to achieve their learning intention, with misconceptions addressed within it.

* Through using a range of assessment tools, differentiation is facilitated by teachers, to ensure that each pupil can access the Science curriculum.
* Cross-curricular links are planned for, with other subjects such as Maths, English and Computing and our forest school area.

#### **EYFS**

The Early Years Foundation Stage Curriculum supports children’s understanding of Science through the planning and teaching of ‘Understanding the World.’ Children find out about objects, materials and living things using all of their senses looking at similarities, differences, patterns and change. Both the environment and skilled practitioners foster curiosity and encourage explorative play, children are motivated to ask questions about why things happen and how things work. Our children are encouraged to use their natural environment around them to explore. Children enjoy spending time outdoors exploring mini-beasts and their habitats, observing the changing seasons, plants and animals. Children regularly participate in cookery and baking sessions which allows them to experience changes in state as ingredients are mixed, heated and cooled.

Impact

* Most children **will**achieve age related expectations in Science at the end of their cohort year.
* Children will retain knowledge that is pertinent to Science with a real life context.
* Children will be able to question ideas and reflect on knowledge.
* Children will work collaboratively and practically to investigate and experiment.
* Children will be able to explain the process they have taken and be able to reason scientifically