Making a difference with kindness, creativity and pride

ST PAUL'S SCIENCE CURRICULUM

INTENT

At St Paul's Primary School, we intend for our children to be **SCIENTISTS!** Our **intent** is to give every child a broad and balanced Science curriculum which enables them to confidently explore and discover what is around them, so that they have a deeper understanding of the world we live in. We want our children to love science. We want them to have no limits to what their ambitions are and grow up wanting to be astronauts, forensic scientists, toxicologists or microbiologists. We want our children to remember their science lessons in our school, to cherish these memories and embrace the scientific opportunities they are presented with! To achieve this, it involves exciting, practical hands on experiences that encourage curiosity and questioning. Our aim is that these stimulating and challenging experiences help every child secure and extend their scientific knowledge and vocabulary, as well as promoting a love and thirst for learning. At St Paul's, we have a coherently planned and sequenced curriculum which has been carefully designed and developed with the need of every child at the centre of what we do. We want to equip our children with not only the minimum statutory requirements of the science National Curriculum but to prepare them for the opportunities, responsibilities and experiences of later life.

IMPLEMENTATION

- Topics are blocked to allow children to focus on developing their knowledge and skills, studying each topic in depth.
- Every class will build upon the learning from prior year groups therefore developing depth of understanding and progression of skills.
- Teachers promote enjoyment and foster interest of the scientific disciplines; Biology, Chemistry and Physics.
- 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 ability to 'know more and remember more' there are regular opportunities to review the learning taken place in previous topics as well as previous lessons.
- At the start of each topic children will review previous learning and will have the opportunity to share what they already know about a current topic.
- Effective use of education visits and visitors 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.
- Children are given clear success criteria in order to achieve the learning intention with differing elements of independence.
- Cross-curricular links are planned for, with other subjects such as Maths, English and Computing.

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.

SEN

We have a mastery approach to teaching and learning to ensure we are ambitious about what all children can achieve and we do not believe their ability is '*fixed'* for every subject. In science learning is scaffolded for children to require who it. This can include:

- Key vocabulary displayed in the classroom
- Recap previous learning
- Hands on learning experiences
- Different sized font/ coloured overlays
- Language modelled
- Time given to discuss thoughts before answering/ working
- STEM sentences to support structuring answers.
- Experiment recording could be done verbally, in peers or supported by an adult.

IMPACT

The impact of this curriculum design will lead to excellent progress over time, across key stages, relative to a child's individual starting point and their progression of skills. Our Science curriculum will lead pupils to be enthusiastic Science learners and understand that science has changed our lives and that it is vital to the world's future prosperity. We want to empower our children so they understand they have the capability to change the world.