ST. ANNE'S C.E.(VC) PRIMARY SCHOOL

Science Curriculum Statement

'Together with God, Making Learning a Life Long Friend'

At St Anne's C.E, V.C. Primary School, children join us with a limited experience of science. It is our intent to foster progress in all children; create an environment where there is: confidence in questioning; the ability to work scientifically through different modes of enquiry; applying their knowledge of the subject to inform this and further refine investigation. We hope to create critical thinkers, that evaluate findings and provide the opportunity to further develop their thinking around this subject.

To achieve this, we have designed our curriculum to build on the phenomena and myriad of vocabulary acquired about general science during EYFS. The curriculum, organized into bite size chunks, focuses on learning that builds appropriately, in order to develop a child's understanding and ability to progress in the subject. They revisit common themes, but approach them to a greater depth. In terms in substantive and disciplinary knowledge, the syllabus, based on the National Curriculum programmes of study, spiral up through the school. This approach ensures that they are ready to embark upon their Key Stage 3 experience with enthusiasm.

At St Anne's we aim to incorporate the above principals to provide an education in Science that:

- Develops children's (disciplinary) knowledge and understanding of important scientific ideas, processes, skills and relate these to everyday experiences.
- Develops a curious and questioning mind.
- Supports the skills of observation and investigation.
- Develops collection, retrieval, presentation and communication skills in a variety of ways.
- Acquires and refines the practical skills (substantive knowledge) needed to investigate questions effectively.
- Develops skills of predicting, asking questions, making inferences, concluding and evaluating based on evidence and understanding and using these skills for investigative work.
- Teaches why numerical and mathematical skills are useful and helpful to understanding scientific concepts, support investigation and testing work.
- Encourages children to think creatively about Science and enjoy trying to make sense of phenomena.
- Develops language skills through talking about their science work and presenting their own ideas using sustained and systematic writing of different kinds.
- Uses scientific and mathematical language, including technical vocabulary, conventions, draw diagrams and charts to communicate scientific ideas.
- Encourages children to work with others, listening to their ideas and treating these with respect.
- Develops respect for evidence and evaluate critical ideas, which may not fit evidence available.
- Develops a respect for the environment, living things and for their own health and safety.

The curriculum planning in Science is carried out in three phases: The use of the National Curriculum programmes of study, which outlines the disciplinary and substantive knowledge (statutory and non-statutory) required to be followed. These in turn inform our long-term (LTP), and short-term planning (STP)]. The LTP maps out the Science topics to be covered in each term during the Key Stage and a more detailed outline of the programmes of study. This is available on the school shared area system under Science.

A commercial scheme is available to support teachers in delivering high quality Science, as well as other supportive material such as Tig-Tag.

Class teachers complete a STP for each Science lesson. This can take the form of a traditional planning sheet or be detailed as part of a flip-chart. These list the specific learning objectives for each lesson and give details of how the lessons are to be taught. Activities should build upon the prior learning of pupils and provide opportunities for all abilities to develop their skills, knowledge and understanding in each subject area. There is planned progression built into the LTP, so that the pupils are increasingly challenged as they move up through school.

At St Anne's we value a shared methodology to teaching science, but also value each teacher's individual approach, when delivering lessons. We look to balance the acquisition of knowledge and practical investigation. Pupil feedback indicates that our children are most enthused through an enquiry based approach. We value and look, where appropriate, to incorporate the following modes of enquiry: Comparative and fair testing; identifying, classifying and grouping, observing over time; pattern seeking and researching using secondary sources. Where suitable though, we use teacher demonstration, as this can be an effective way to increase the working memory capacity for the children.

Our Science Curriculum, which is continually being reviewed and improved, is high quality, well thought out and is planned to demonstrate progression in the children's skills and knowledge. In addition, we measure the impact of our curriculum through the following methods:

- Formative assessments of standards achieved against the planned outcomes through pupil discussions; observations made of practical investigation and analysis of any written work.
- At the end of key stage, we also assess attainment, with respect to national standards with St Anne's children achieving the following for 2021/22:
- EYFS :
- KS1: 89 % (St Anne's) 77% (National)
- KS2: 85% (St Anne's) 79%(National)

The impact of our curriculum will also be measured by how effectively it helps our pupils develop into well rounded individuals who embody our values and carry with them the knowledge, skills, and attitudes which will make them lifelong learners and valuable future citizens. We endeavour for pupils to have all six of our school's core values embedded and utilised by the time they leave St Anne's at the age of 11. These are: *kindness, respect, perseverance, honesty, faith and community.* When children leave St Anne's they are ready for their journey into High school, but well - rounded individuals with positive attitudes towards learning.