

St. Anne's & St. Joseph's RC Primary Science Policy



Our Vision

Our curriculum is designed to have faith and love at its heart, with children developing a sense of belonging to both our Parish and local community as they journey through school. It is designed to value each child, allowing them to develop their God given gifts. Our curriculum will encourage the highest aspirations for all members of our school family, helping pupils become independent learners who have the resilience to persevere, confidence to rise to all challenges and have empathy for all around them.

Introduction to Science

At SASJ, we believe a broad and balanced science education is an entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability. We wish to provide the children with ideas and ways of working that enables them to make sense of the world in which they live through investigation as well as using and applying process skills.

INTENT

Through the programme of study, we deliver the National Curriculum for science in ways that are imaginative, purposeful, well planned and engaging. Assessment strategies are used effectively to inform the teaching and learning so as to ensure provision for support, consolidation and extension of learning for each child. We ensure that the learning environment is safe, happy and inviting so children feel inspired to learn. There are strong links between home and school; we encourage each child's learning to be recognised and developed at home and outdoors, as much as possible.

Here at SASJ, we ensure that children are given enough time to study the four main areas of the science curriculum. These are: Scientific enquiry, Life and living processes, materials and their properties and physical processes.

IMPLEMENTATION

Planning

At SASJ, we feel that it is imperative that all teaching staff are involved in the planning process to ensure that the school gives full coverage of the National Curriculum. We plan in phases to ensure a collaborative approach, utilising each other's strengths and supporting one another on all levels. Science teaching in our school is about excellence and enjoyment. We adapt and extend the curriculum to match the unique circumstances of our school and the children who learn here.

Teaching & Learning

Children at SASJ learn through a thematic curriculum, with the teaching and learning of science being based on investigation, observation and application. The theme is changed each half term to ensure children are exposed to many different scientific topics throughout their time at school.

Children in the foundation stage are taught the science elements as indicated in the development matters curriculum through: Knowledge and Understanding of the World. Links to other areas of the curriculum that enhance their understanding of science are

identified and incorporated into planning. Each topic is taught as a block of work each half term.

In addition to the knowledge and understanding aspects of the National Curriculum, emphasis needs to be put on scientific investigation and enquiry, including the correct use and care of scientific apparatus. When planning the learning experiences, the pupils' previous experiences and present understanding should be taken into account.

Science is taught in a cross curricular way, particularly with links to maths, computing and PE, where applicable. Our children experience science outside of the classroom as much as possible. At least one science lesson per term should be an active science lesson and the use of WOW floor books are an exciting way to allow children to question and extend investigations or experiments.

Teachers are encouraged to actively teach science skills and reinforce learning with selected enquiry stimulations. We encourage children to ask and answer their own questions as often as possible. Children should complete at least one investigation per half term. These investigations should be based on their current topic but have a focus on developing the children's scientific skills.

SEND Children

At SASJ, there is a range of subject resources available to meet the varying needs of individual children. Children will work at their own pace on individual projects. Children with SEND may benefit from pre-teaching sessions and more frequent input of certain subject opportunities that can be provided in classes through the organisation and creative use of the available resources. Where appropriate, reference will be made to children's IEPs. Also see SEND Policy.

Gifted & Talented Children

Reference will be made to the G&T register for individual children who show greater depth in the subject. Work will be appropriately extended and amended to account for high achievers in science. Together we provide opportunities to broaden and stretch their scientific knowledge and develop their working scientifically skills within the four main areas of the science curriculum.

Resources

We draw on a multitude of resources to deliver the National Curriculum. These are stored centrally, in the UKS2 area near Willow and Oak classes. There are an array of

resources for teachers to use for specific topics as well as for WOW science experiments. The school is equipped with a number of outdoor areas around the school grounds as well as our local environment. All correct risk assessments are completed for visits and visitors to support learning. The subject leader is responsible for the inventory of resources. However, staff need to notify the science leader when supplies deplete or are not in good working order.

Health & Safety

Children should be taught the correct and safe use of equipment and simple safety procedures as an intrinsic part of their science lessons. A risk assessment should be carried out in line with school policy in regard to any school trips or experiments out of school grounds. Safety equipment is available in the science cupboard. Any injuries that do occur, should be immediately referred to the school office and an accident form filled in.

It is the responsibility of individual teachers to refer to the school's health and safety policy and refer to risk assessment documents. Although the teaching of primary science involves few risks, teachers should be particularly aware when dealing with the following:

- Sharp objects such as tools and glass
- Flames and hot things (candles, hot water etc.)
- Equipment powered by mains electricity
- Chemicals (including "kitchen" chemicals)
- Animal and plant specimens
- Micro-organisms

Special restrictions

- Pupils at KS1 should not use expanded polystyrene, because of the risk that they may poke it into ears, etc. possibly requiring surgery to extract it.
- Thin plastic (polystyrene) cups from drinks machines should not be used to hold hot water, because of the risk that they may be easily knocked over when pouring the water or may soften and collapse, in either case spilling hot water on those nearby.
- Rechargeable batteries should not be used for circuit work by pupils, because they may become very hot if short-circuited (but they can be used in equipment, for example, in Roamer robots, Lego motors, etc.)
- Where iron filings are in use for work on magnets, these should be enclosed in clear plastic containers, sealed plastic bags or similar. Where iron filings are needed for other

purposes, e.g. separation of mixtures, pupils should be warned about the dangers of rubbing eyes with their fingers and work should be confined to pupils at KS2.

- Scrupulous hygiene must be observed before and after cooking activities or handling animals, etc. Younger pupils should be supervised to ensure they wash their hands properly.

IMPACT

Assessment

We have various ways of assessing the children which we use to inform and develop our teaching. Assessment takes the form of oral responses as well as a variety of recorded work and each child's progress will be noted.

Within the classroom, topics commonly begin with an assessment of what children already know. The learning objective for the lesson is always shared with the children. However, this may not always be at the beginning of the lesson. For example, if the investigation or enquiry leads the children to discovering the learning objective for themselves.

Children are involved in the process of self-improvement, recognising their achievements and acknowledging where they could improve on a short-term basis when assessing their understanding against the learning target of a lesson.

EYFS knowledge and understanding of the world may be evidenced using photographs of the children working scientifically. Any oral evidence can be recorded by teachers during their observations.

Recording the progress of individual pupils is noted on an assessment sheet following each topic. Progress reports will take place during informal discussion, on Parents' Evenings where they will be informed of their child's progress in scientific enquiry and understanding. Reports to parents are written once a year, highlighting each child's attitude towards effort and attainment in science, linked to age-related expectations.

Monitoring

The science subject leader will monitor learning as per the monitoring and evaluation schedule. Following any monitoring, actions required are noted on the science action plan for that school year.

Review Date – September 2020