



SJF CURRICULUM

Science

INTENT | IMPLEMENTATION | IMPACT



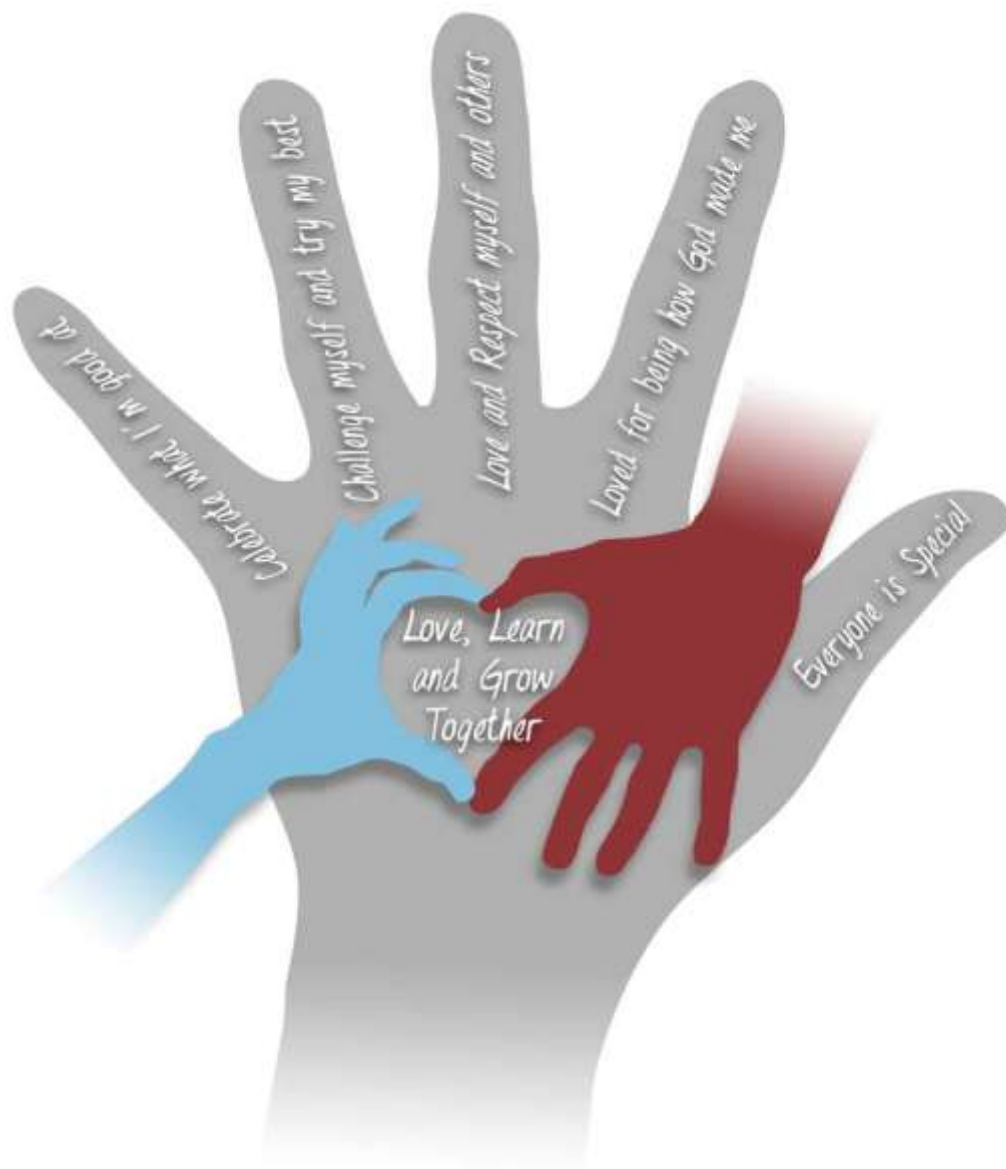
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SJF VISION AND MISSION

Our vision is that every single member of our community will love, learn and grow together. This is achieved by:

- Celebrating what we are good at
- Challenging ourselves and doing our very best in our work
- Loving and respecting ourselves and each other
- Knowing that we are loved for being just how God made us
- Accepting that everyone is special

To achieve these aims all learners, staff, parents and Governors will work together.



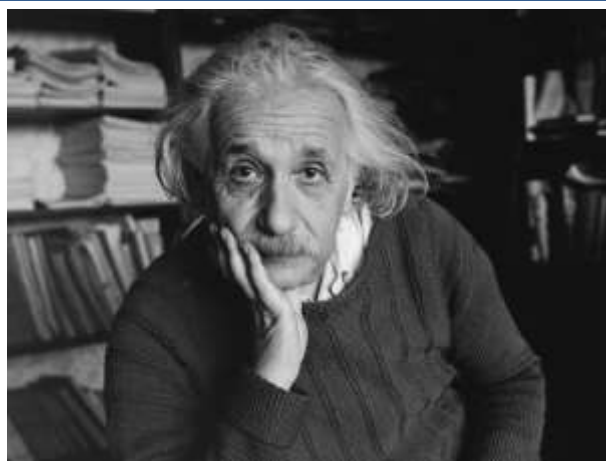
SJF CURRICULUM AIMS

- To provide an exciting curriculum that:
 - enthuses, engages and motivates all children
 - fosters and encourages natural curiosity, enquiring minds and deep enthusiasm for learning
 - enables each child to thrive and achieve their full potential
 - empowers children to develop resilience and courage
 - embeds, in all children, the attitudes and behaviours necessary for them to be lifelong learners
- To provide a secure and safe environment so that all children can work, play and be encouraged to develop moral values and healthy respect for others
- To facilitate positive links to our children's cultural backgrounds and heritage
- To foster strong links between home and school, rooted in the conviction that parents/carers are the first educators, so that we enable. Encourage and support them to be active in their children's school lives and learning.
- To provide our children with an education that gives them with a solid foundation for the rest of their lives that enables them to grow to be happy and confident citizens, respectful of themselves and others – and with the personal qualities necessary to drive them forwards in the pursuit of their dreams and ambitions, including confidence, courage motivation and resilience.

INTENT

"The important thing is not to stop questioning. Curiosity has its own reason for existing. One cannot help but be in awe when he contemplates the mysteries of eternity, of life, of the marvellous structure of reality. It is enough if one tries merely to comprehend a little of this mystery every day. Never lose a holy curiosity."

Albert Einstein



Our curriculum recognises and celebrates the impact of Science in every aspect of our daily lives. As we encourage the children to view their world with a sense of wonder and awe our Science curriculum is a driver that encourages curiosity and enquiring minds. Our aim is that our curriculum will provide answers both to questions that our curious children have – as well as answers to important questions they have not yet thought of.



Our curriculum also enables them to build an understanding of the scientific processes for finding answers and celebrate the lives and achievements of significant scientists with the aim of inspiring and encouraging our children to think and respond scientifically; to remain curious all through their lives; and to perhaps pursue further study and science-based careers in the future, to some extent, as a result of our curriculum offer.

At St John Fisher we want our children to be naturally curious about the world around them. We want to embrace their sense of wonder about natural phenomena and to guide them into becoming enquiry-based learners. The science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live. We want our children to develop an understanding of the uses and implications of Science, how it has changed and shaped our lives and how vital it is to the world's future prosperity.

Scientific enquiry skills are embedded in each topic the children study and these topics are revisited and developed throughout their time at school. Topics, such as 'Plants', are taught in KS1 and revisited again, and in greater detail, throughout KS2 - thus allowing the children to grow in their understanding, building upon their prior knowledge and increasing their enthusiasm for the topics whilst embedding this procedural knowledge into the long-term memory.

In our community, Science teaching involves adapting and extending the curriculum to match all pupils' needs to ensure they are challenged and achieve success, regardless of their starting point. Where possible, science is linked to other class topics and curriculum areas. It is taught, predominantly, in discrete units to ensure coverage is comprehensive and in line with National Curriculum requirements. Teachers plan to suit their children's interests, current events, their own teaching style, the use of any support staff and the resources available. Opportunities are sought to teach science through all of the primary subjects.

We ensure that all children are provided with rich learning experiences that aim to:

- prepare pupils for life in an increasingly scientific and technological world
- help our children to acquire a growing understanding of nature, processes and scientific ideas
- help develop and extend our children's scientific conceptual understanding of their world
- build on children's natural curiosity so they develop a more scientific approach to problems
- encourage open-mindedness, reflection and self-assessment as well as perseverance
- support the development of practical skills of investigation, including:
 - observing
 - measuring



- predicting
- hypothesising
- experimenting
- communicating
- interpreting
- explaining
- evaluating
- develop the use of scientific language, recording and techniques - independently
- develop the use of computing in investigating and recording
- make appropriate and supportive links between Science and other subjects

IMPLEMENT

In ensuring high standards of teaching and learning in science, we implement a curriculum that is progressive throughout school.

Planning for science is a process in which all teachers are involved to ensure that the school gives full coverage of, 'The National Curriculum programmes of study for Science 2014' and, 'Understanding of the World' in the Early Years Foundation Stage. Additionally, Science teaching in our school community involves adapting and extending the curriculum to match all pupils' needs.

Science units are taught on a one-year cycle. This ensures progression between year groups and guarantees a comprehensive coverage of topics. Teachers plan to suit their children's interests, current events, their own teaching style, the use of any support staff and the resources available.

We seize every opportunity to further enhance the curriculum and grow enthusiasm in science. Recent examples include special curriculum STEM week, butterflies (Early Years) and the development of our new wildlife area and pond by all year groups. Revisiting and investigating specific areas of the grounds enables children to make observations note the impact of seasonal changes and other potential drivers of change, which in turn encourages enquiring minds and critical questions to support ongoing scientific learning, language, embedded knowledge and skills.

Year groups make use of our outdoor areas and all children will benefit from the new wildlife area and pond, being developed in partnership with the Yorkshire Wildlife Trust and our PTFA.



Science units include a strong element of investigation to encourage and develop children's enquiring minds and a clear knowledge content to build upon - both in terms of their prior, and next stages of learning. As well as this, in each year group, one topic is a standalone unit of enquiry aimed at nurturing the skills of being a young scientist.

IMPACT

The impact and measure of this is to ensure children not only acquire the appropriate age-related knowledge linked to the science curriculum, but also skills which equip them to progress from their starting points, and within their everyday lives.

All children will have:

- a wider variety of skills linked to both scientific knowledge and understanding, and scientific enquiry/investigative skills
- a richer vocabulary which will enable to articulate their understanding of taught concepts
- high aspirations, which will see them through to further study, work and a successful adult life

Our engagement with the local environment ensures that children learn through varied and first-hand experiences of the world around them. Children at our school overwhelmingly enjoy science and this results in motivated learners with sound scientific understanding. Our pupils are learning that Science in its many forms is vital to the world's future prosperity and know and believe that they play a significant part in this future.

