

Science at St Agnes CE Primary School

At St Agnes CE Primary School we provide an engaging and inspiring curriculum that promotes our core value of 'love to learn'. Based upon the needs of our children, families and the community, our curriculum aims to equip pupils in acquiring the cultural capital needed to flourish in education and beyond. We achieve this through a knowledge based and skills led approach, rich in language and vocabulary, supported through enriching experiences which allows all of our children to 'learn do well'. Pupils will leave St Agnes well prepared for the next stage of their education – enabling them to grow into active, responsible members of society 'living well together', in modern Britain.

Why we teach Science

At St Agnes's we believe that the role of Science is to enable pupils to become lifelong learners, by understanding the world they live in, through investigation of that world. The teaching of Science offers our pupils the ability to access a wealth of knowledge and information which will contribute to an overall understanding of how and why things work like they do.

Science is able to explain the mechanics and reasons behind the daily functioning of complex systems, which range from the human body to sophisticated modern methods of transport. Children are able to use this knowledge to understand new concepts, make well-informed decisions and pursue new interests. Science also helps to provide tactile or visible proof of many facts we read about in books or see on the television; this helps to increase understanding and helps children to retain that information. It is concerned with the past, present and future and helps pupils to make sense of the outside world.

Science encourages children to be inquisitive and is about seeing, doing, enquiring and experiencing. Children should be able to apply their skills in different situations across the curriculum and in daily living outside school.

How we teach Science

At St. Agnes, we aim to provide science lessons that are "hands-on" and "minds-on", that promote learning but also fosters the wish for pupils to learn more about science, and perhaps even find a passion within the field. We believe that our children learn best by "doing."

In our lessons we aim to provide pupils with an opportunity to explore their own interests and passions, as well as build upon the knowledge they have already gained and previous experiences they have had. In order to involve children in "doing" Science, our teachers guide our pupils along a continuum. Firstly, our teachers provide a sound key knowledge platform before progressing to inquiry-based learning. Teachers, as guides, will promote critical thinking and integrate Science into the St Agnes curriculum. Ongoing assessments will ensure that each pupil will profit from each lesson and help dispel any misconceptions as they arise.

What Science looks like at St Agnes

Lessons:

are **practical** and involve **investigating** and **experimenting**

provide a genuine purpose to **investigate** and **explore**

are **enjoyable** and **intriguing**

encourage pupils to **think, explain** and **reflect** on their learning & mistakes.

use **quality** resources and equipment to support teaching and learning, **including ICT**

Pupils are:

curious, enthusiastic and **ask questions**

feel **inspired, driven** and **motivated** to succeed

work **collaboratively** in groups

know and **use** correct vocabulary

Teachers:

Have good **scientific knowledge** and **understanding** and so they are confident to teach it

Provide opportunities for children to use the **5 types of scientific enquiry**.

Generate a buzz around Science (through visitors, trips, clubs, lessons and Science Week)

Challenge children and generate deep thinking through **open – ended questions**

Links: National Curriculum

<https://www.gov.uk/government/publications/national-curriculum-in-england-science-programmes-of-study/national-curriculum-in-england-science-programmes-of-study>

National Stem Centre

<https://www.stem.org.uk/resources/collection/3201/national-curriculum-science>

'Give the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking; learning naturally results.'

John Dewey

'The important thing is to never stop questioning!'

Albert Einstein