Holy Trinity Church of England Primary School

Excellence in how we worship, learn and work together

Holy Trinity Science Portfolio

Faustina Adjaye

Science at Holy Trinity

Our History

Intent

At Holy Trinity, it is our intention to recognise the importance of Science in every aspect of daily life. We intend to allow all our naturally curious and inquisitive children to develop scientific knowledge and conceptual understanding, which stimulates them to understand the uses and implications of science, today and for the future.

We intend to build a Science curriculum which develops learning and results in the acquisition of knowledge and build a Science curriculum which, enables children to become enquiry based learners.

Science at Holy Trinity

Intent

In our rapidly evolving world, science is a vital part of our curriculum intention. Science links direct practical experience with ideas, it can engage learners at many levels. Scientific method is about developing and evaluating explanations through experimental evidence and modelling.

Pupils learn to question and discuss science-based issues that may affect their own lives, the direction of society and the future of the world.

Science at Holy Trinity

Intent

To provide a stimulating environment, where children can work in an investigative way and can communicate their findings in a variety of ways.

This equips all teachers with the necessary tools to teach a dynamic and diverse curriculum across the different key stages.

Year 1	Year 2	Year3	Year 4	Year 5	Year 6
Working scientifically	**Working scientifically**	**Working scientifically**	**Working Scientifically**	**Working scientifically**	**Working scientifically**
	Living things and their habitats Living and dead, describe habitats, basic food chains		**Living things and their habitats** Group living things, use classification keys. Change in environment can threaten life	**Living things and their habitats** Animal - different life cycles, reproduction in plants and animals	**Living things and their habitats** Classifications including microorganisms, plants and animals.
Plants Name basic parts—identify common plants	**Plants** Seed/bulb grow into plants. What plants need	**Plants** Function - including how water is transported Life cycle of plants			
Animals, including humans Name common animals Name carnivores, herbivores, omnivores	**Animals, including humans** Animals have offspring, basic needs for survival. Importance of exercise, food hygiene.	**Animals, including humans** Need for right amount of nutrition Skeletons and muscles	**Animals, including humans** Basic function of digestive system. Teeth. Food chains	**Animals, including humans** How humans change with age	**Animals, including humans** Human circulatory system. Exercise, drugs and lifestyle.
		Rocks Group different rocks, how they are formed Fossils			Evolution and inheritance Fossil Offspring different to parents. Animal adaptation—Evolution
Everyday materials Name. Describe and sort everyday materials	**Uses of every day materials** Uses of materials Changing shape of materials		**States of matter** Solids, Liquids, gases Change state, Evaporation/condensation	**Properties and changes of materials** Dissolve, separating, reversible changes. Change that produce new materials.	
		Light Need for light to see. How shadows are formed - size.	**Sound** How sound is made, travels. Pitch and volume		**Light** Travels in straight lines, How light enables us to see. How shadows are formed - shape
		Forces and magnets Compare different surfaces. Magnets		**Forces** Gravity, air/water resistance, friction. Levers, pulleys and gears	
Seasonal Changes Observe weather and changes across seasons				Earth and Space Movement Earth, planets & moon. Night and day	
			Electricity Simple circuits, Switches Conductors and insulators		**Electricity** brightness of lamp, volume of buzzer. symbols circuit diagrams.

Science at Holy Trinity

Intent

Topics are revisited and developed in further detail throughout Key Stage Two. This model allows children to build upon their prior knowledge and increases their enthusiasm for the topics whilst embedding this procedural knowledge into the long-term memory.

Science at Holy Trinity

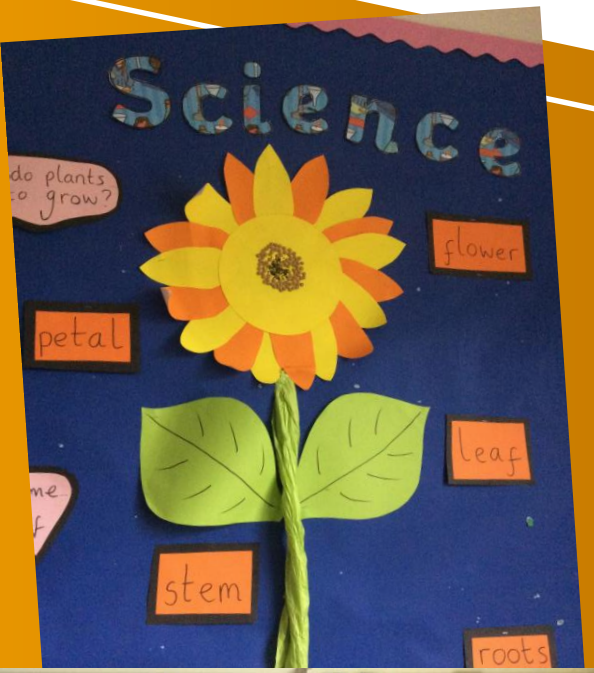
Intent

In EYFS and KS1, we recognise the importance of scientific enquiry and encourage the children to develop their inquisitive minds through hands-on scientific exploration. In Early Years, we believe that play is the most important tool to grow a child's inquisitive mind and ability to explore. Through a variety of focused areas within the classroom, children are regularly asked to explore new and interesting ideas which stimulate their naturally inquisitive nature. Through this approach we develop the children's ability to raise questions and seek out their own answers thus beginning their ability to work scientifically from the earliest starting point.

Science at Holy Trinity

Implementation

Working walls in our classrooms reflect topics and display vocabulary. Children are encouraged to refer to these, so they can be resourceful in supporting their own learning. Teachers plan opportunities to develop children's understanding of their surroundings by accessing outdoor learning and a variety of enriching experiences.



Science at Holy Trinity

We plan differentiated challenges that provide for all children, including vulnerable groups and those working at greater depth. Throughout the year groups, we provide enrichment activities including trips, visits and workshops from experts in their field to enhance learning experiences

Implementation

Science at Holy Trinity

Impact

Competitions
Throughout the school year we compete in science competition against other schools in the cluster.

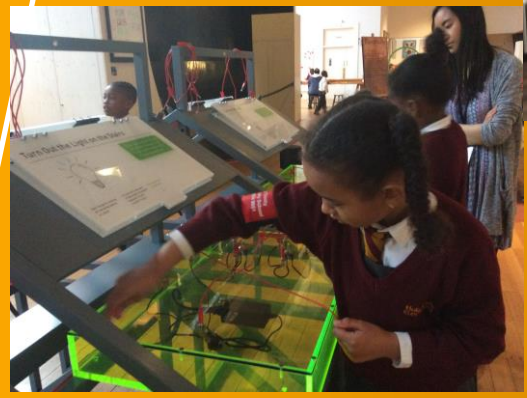
Science Competition
2nd Place 2017
1st Place 2018
3rd Place 2019

Science at Holy Trinity

"Science at Holy Trinity means to me..."

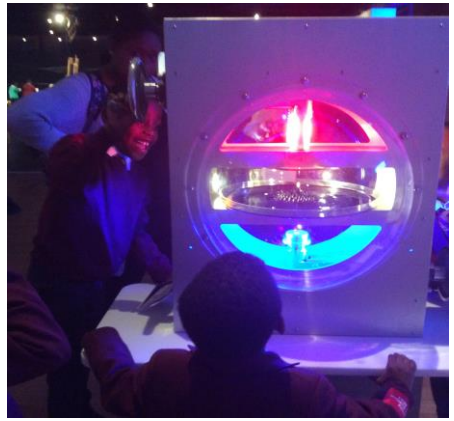
Impact

Ciana year 2 – *"Science is fun when do experiments"*



Vilma year 3 – *"We learn a lot when do visit science museum"*

Wolfie year 5 -" *Going on trips. I really enjoyed going to the Science Museum because there were lots of games, fun things to look at and experiments to see".*



Martin Year 5-*"I enjoyed learning about gases. We breathe in oxygen but, in some places there is not enough oxygen".*

Enrichment/ Enhancement activity highlight

Years 4 and 5 went to Richard Atkins school to take part in their 'Science explosion'! It was a great event, with lots of fascinating projects on show. Holy Trinity showed their understanding of the heart and why healthy eating is important, as well as 'Brilliant Bacteria' which was all about why we need to stay hygienic and keep things clean.

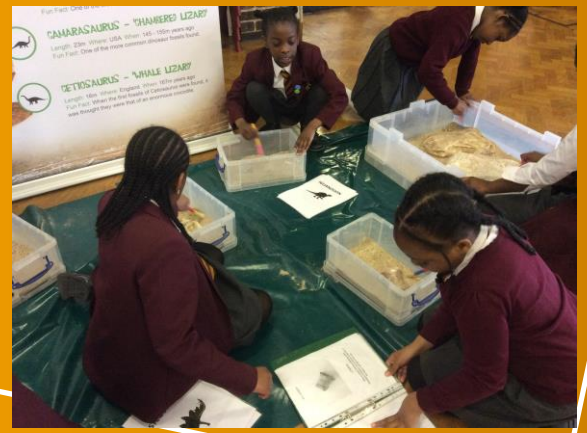
Rachel Thomas

They showed their understanding of their chosen scientific problem and explained their ideas well. Their clear answers, and deep understanding impressed the judges a lot, and definitely helped us to win first place.

Competition organiser (Richard Atkins)

Impact

Science at Holy Trinity



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Every parent is a scientist

Parents taking part during science day creating the largest tower.

Thank You!

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