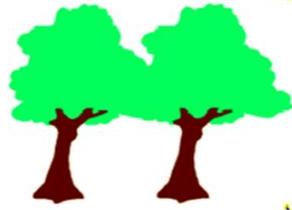


Sholing Junior School



'Achieving Together'



Olivia Stay

Primary Science Curriculum 2014:



A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science.

Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

Intent Statement

Throughout their time at Sholing Junior School, we want all children to become confident, excited and enquiry led Scientists who strive to ask questions and develop their ideas through investigative learning. We want the children to see Science as an everyday phenomenon that is adapting and changing all of the time. It cannot be seen as a stand alone subject but a development of ideas and skills which can enhance and improve the world around us. The children will explore Scientists who have impacted on our lives today, as well as, current people who are working to enhance our knowledge of Science. From Alexander Bell, the inventor of the telephone to Tiera Guinn (who is currently helping NASA build a rocket at the age of 21). Through research and exploration of these Scientists, we hope to change the children's perception of Science and stereotypes and enable children to see that anyone can be a Scientist - It's about having the passion, drive and thirst for knowledge that will help you achieve.

We hope to engage children in enquiry based learning and promote the use of questioning to deepen children's thinking around the key concepts they will be focusing on. We want to build on their KS1 Scientific skills and get the children exploring, observing, recording and evaluating in all learning so that they constantly question the world around them and expand their knowledge and understanding. The aim of our Science curriculum is to help build on children's curiosity about Science concepts and improve their understanding of current issues surrounding us and that they, as the next generation, can have a huge impact on how the world will look in years to come. From global warming to the current pandemic, all of these need scientists who strive to make the world a better place. We hope to share and encourage children to see the different jobs scientists can do and to continually break down barriers so that all feel they can make a difference to our planet.

Overall, our vision is to inspire children to take on the role of a scientist, continually question their ideas and to challenge previous knowledge through open ended enquiries which will then lead to new discoveries. We want the children to see themselves as future scientists who can make a difference and follow in the footsteps of many great scientific people who have all had an impact on our world today.

Our Aims

At Sholing Junior School we aim to:

- nurture an interest and enthusiasm for science
- deliver the National Curriculum Science objectives in ways that are imaginative, purposeful, well controlled and enjoyable
- help develop and extend children's scientific concept of their world and encourage them to ask meaningful questions to discover more about the world around them
- provide opportunities for children to explore the work of real scientists the significance of their findings and the impact on the world today.
- make strong, purposeful links between science and other subjects e.g. using ICT in a meaningful way to extend their learning (video clips/recording, photography, chromebooks and use of scientific equipment.)
- provide enjoyment and build self-esteem by fostering children's natural curiosity
- develop children's skills of working scientifically including the use of scientific language, communicating ideas, hypothesising, experimenting and interpreting results to form conclusions
- develop a responsibility for their own health and safety and that of others when undertaking scientific activities
- develop respect for living things and the environment
- provide children with opportunities to visit local places, such as the University of Southampton and Leonardos, to help children see how Science impacts on the wider world.
- provide opportunities to engage in activities that are challenging, creative, relevant and motivating

Equal Opportunity

We are committed to providing a teaching environment conducive to learning. Where each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability.

Our Strategies

Science is a body of knowledge essential to our understanding of the world around us. The process of scientific investigation forms the basis of the most intellectual enquiry and so have a wide application in everyday life.

The knowledge, skills and understanding will be taught through:

- tasks which are open ended to encourage working scientifically
- a scheme of work and medium term plans in each year group based on the National Curriculum programmes of study that ensures a range of progression and skills.
- a variety of teaching methods including whole class, group and individual work
- time to explore what children already know and understand from their own experiences, what they have learnt so far as well as questions that they would like to investigate
- activities, including trips and exploration of the school grounds, to develop understanding of the environment and the impact this has on their lives
- access to well-resourced and maintained specialist science equipment suited to the ability and needs of the children

Our Resources

At Sholing Junior School we aim to have:

- a well-maintained central resource area
- labelled boxes with equipment specific to units of work studied in each year group
- a wide selection of general resources relevant to many topics

- suitable video links and resources for use in science lessons
- books for staff to provide support in the delivery of science
- pupil books in the resources boxes and library relevant to topics studied

Our Science Leader

The member of staff responsible for the management and development of Science throughout the school is Olivia Stay. She will:

- seek to enthuse pupils and staff about science and promote high standards of achievement and high quality provision
- advise and support staff in the planning, delivery and assessment of science
- manage and develop all resources for science
- monitor and evaluate science throughout the school
- keep up to date with current developments by attending courses, liaising with colleagues from other schools, and use this as a basis for staff development activities
- provide opportunities for our gifted and talented pupils to participate in appropriate activities
- continue to promote and raise the profile of science throughout the school

Assessment, Record Keeping and Reporting

In order to ensure continuity, progression and high standards of achievement in science, assessment for every child will include:

- ongoing formative assessment through observations and dialogue with children in both understanding of key concepts and working scientifically will be carried out in each lesson and for each unit of work and these assessments will be added to FFT.
- a summative assessment of each child's progress in science over the year will be provided in their end of year report
- pupil interviews and active work sampling with a selection of pupils across the year groups; copies of work to be kept by the science leader in a central portfolio.

SEN, Pupil premium & Greater depth in Science at SJS

At Sholing Junior School we aim to:

- provide visual and concrete resources to support children with SEN to ensure an inclusive approach to the subject;
- support and extend children through the use of Science technologies (ICT) and adult support;
- deepen children's knowledge by asking non-routine questions within the topic of focus and providing high-level questioning for the children to explore;
- set tasks which will allow children to work at a greater depth to their peers with greater independence and ownership of tasks.

Our Success Criteria

We expect 90% of our children to attain standards in line with or above those stated in the National Curriculum age related expectations.