PROUD to be FOREFIELD:

Passion, Respect, Opportunity, Unique, Determined

Subject Leader Report: Science 2024

An effective science education provides the basis for understanding the world through biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity; that's why it is a core subject. Through building up a solid foundation of knowledge and skills, pupils should be encouraged to think, question and explore, and develop a sense of excitement and curiosity about the world in which they live.

The national curriculum for science aims to ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future

Science Curriculum

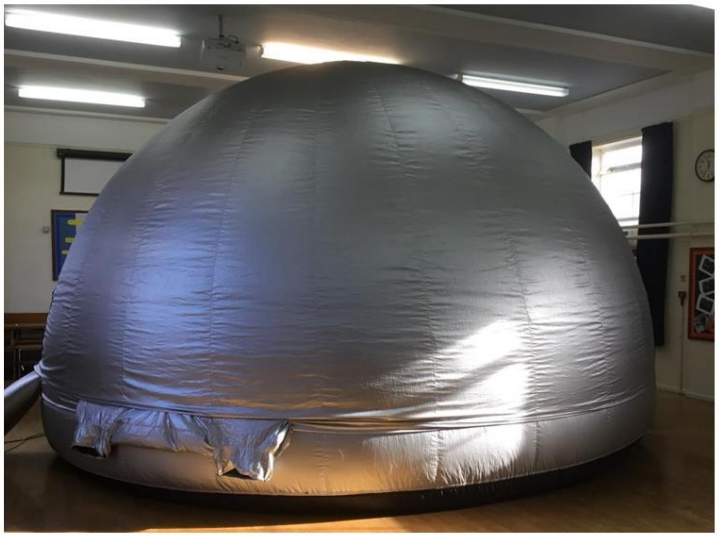
	Autumn Term	Spring Term	Summer Term
Year 3	Magnets and Forces Animals (including humans)	Rocks and Soils (including fossils) Parts of a Plant	What a Plant Needs Light and Shadows
Year 4	Dangers to Living Things Classifying Living Things	Changes of State Sound	Electricity Human Nutrition
Year 5	Earth and Space Forces	Materials Types of Change	Life Cycles
Year 6	Our Bodies Classifying Living Things	Light and Sight Electricity	Evolution and Inheritance

Science particularly links to our **Pupil Guarantee:** to ensure that every child finds their passion through developing a curiosity about the world around them, making healthy lifestyle choices, and extending their knowledge through visits and visitors.

British Values are a huge part of science lessons because science involves so much discussion and partner/ group work, children must listen to each other, considering their views, showing mutual respect, and tolerance. Science in their primary years will prepare children for their future

science education and also prepare them as people who will be living in and making an impact on the world around them.

Visits and Visitors



Year 3: Kidz Fit (Animals and Humans topic on healthy eating, the skeleton and muscle system)

Year 4: Lab Visits to Chesterfield

Year 5: The Space Dome (Earth and Space)

Year 6: ZooLab (Classifying Living things, Evolution)

Assessment

Children are assessed through pre-learning activities and post learning activities which link to the key questions/ National Curriculum learning objectives. This may look like a mind map or quiz questions. These can be in children's books but can also be completed online. Using these as well as observations throughout the teaching sequence and work in books, children assess the children as working towards age expectations, working at age expectations or exceeding age expectations.

2023-24 results across the school were as follows:

18% below age expectations

69% at age expectations (82% ARE+)

13% exceeding age expectations

Updates

FJS took part in a series of science school visits last year. Working with School Improvement Liverpool and in a triad with local schools I was able to complete learning walks, observe lessons, speak with pupils and look at the children's work in books. As science leads we were able to discuss best practice in the curriculum and observe teaching and learning in other schools.

Lessons continue to be of a high standard and enjoyed by children, who were able to talk to visitors very positively about science and recall facts learned in their lessons. Visitors commented on the good pace of lessons, the opportunities for partner discussions, and the questioning by teachers. Books showed a variety of lessons and activities, making science lessons fun and stimulating for children.

During these visits, additional science resources to support lessons were recommended. These have since been shared with staff and will be implemented in the forthcoming academic year and we look forward to using them to enhance our lessons further.

Science Week

Every year the children take part in activities related to the Science Week theme. Last year's was 'Time'. This was a great opportunity for children to complete enquiries related to time.

Year 3: observing paper boats in water over time

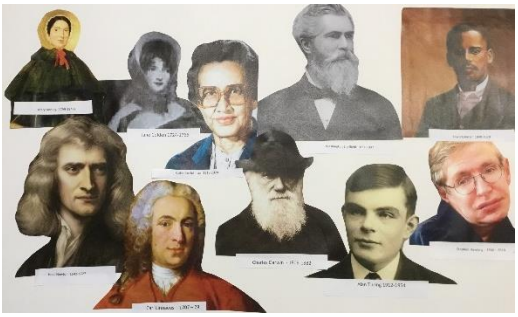
Year 4: observed an egg in vinegar over time

Year 5: investigated patterns with pendulums

Year 6: investigated reaction times

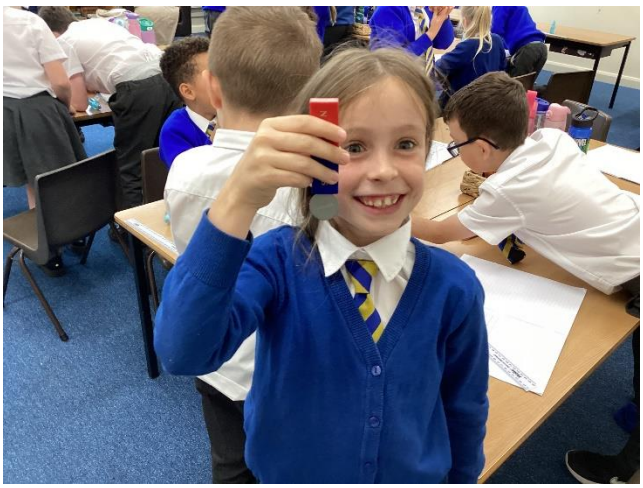
Teachers nominated children from their class who they thought were great Science Ambassadors and winners received a science themed prize and certificate.

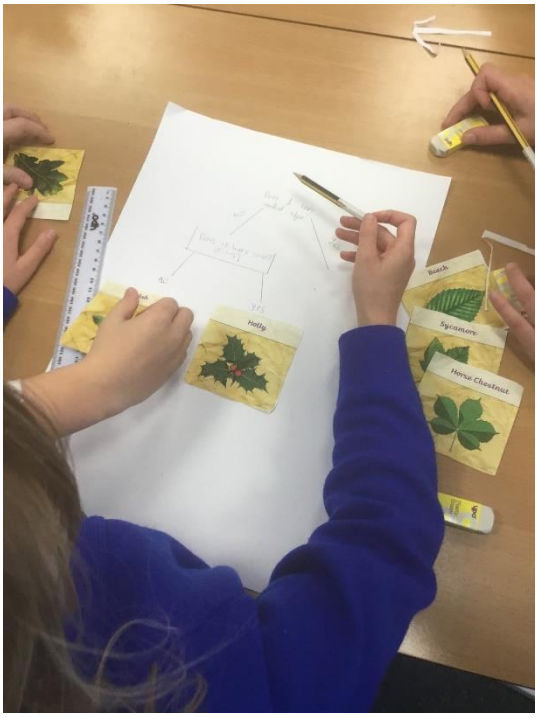
Scientists to encounter at FJS



As a school we have identified scientists in each year group that we would like our pupils to know. They are linked to different scientific topics and show children that science is for everyone. Each scientist was a pioneer in their field and recognised for their discoveries and theories. We hope to share the lives of these inspirational people even more in 2024-25.

Science around our school…





Next steps…

- **To support teaching throughout the school I will produce a 'topic on a page' document for each KS2 Science Unit – highlighting key questions/vocabulary.**
- **Support colleagues to identify key questions to be used within each topic.**
- **Produce a guide for colleagues identifying prior learning and showing how each topic builds on the one before.**
- **Continue to advise colleagues on scientific enquiry.**
- **Work alongside our School Improvement Partner to identify any further developments.**