Forefield Junior School is a ***P.R.O.U.D.*** school built on ***Passion*** and ***Respect***, where ***Opportunities*** can be seized by ***Unique*** and ***Determined*** learners.

PROUD to be ***FOREFIELD***

Subject Leader Report: Science

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 concepts, pupils should be encouraged to recognise the power of reasoned explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to use science to explain what is occurring, predict how things will behave, and analyse causes.

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

Our Curriculum:

Pupil Guarantee

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

Science lessons are an ideal opportunity to reinforce British values. For example, when discussing their predictions or forming conclusions children must listen to each other's views and give them due consideration, showing mutual respect. Often they are working in groups and again children have to show tolerance and respect towards each other, sharing equipment and taking turns.

Assessment

We have continued with a termly teacher assessment of the children, linked to the science objectives for each year group. Children are assessed against the key objectives and the teacher states whether they are below/ at/ above age expectations. I have created a file on the staff drive for staff to refer to if they are unsure of what is expected of their age group. There are examples of children's work at an 'expected' level to help them make their decisions. This should ensure teachers within a year group are making consistent judgements.

Book Scrutiny

- Work in books continues to be of a high standard and presented in a variety of stimulating ways.
- When KWL grids are used, staff are remembering to return to the final column to show progress.
- There is evidence of lessons being adapted to the needs of the child.

Enrichment opportunities

- Classes have continued visiting Chesterfield during each topic (half termly) to have some lab time and are taught by a specialist science teacher. Children are able to access equipment that we cannot have in our school and have the experience of working in a real lab, as well as preparing them for high school.
- Year 6 have a visit from Zoo Lab who show the children a variety of animals linked to their rainforest topic.
- Science displays are used around school to encourage scientific knowledge, show progress or to aid learning. They are stimulating to look at too!
- Year 4 are no longer visiting Martin Mere as Forefield Infants do the same trip.

Outcomes for pupils

- Data shows most children achieving age related expectations (64%)
- There is a small difference between boys and girls
- Disadvantaged and SEN children achieve similarly to the rest of the school

Next Steps in Science

- Feedback comments in books need to continue to show next steps to improve quality of ***science content***.
- KWL grids are just one way of demonstrating pupil prior knowledge and progress. Teachers do use other methods such as drawing a diagram showing what they know at the start of a lesson, but as this is done on whiteboards we need to think about capturing this evidence.

- Teachers are using the science posters purchased to give children more independence when planning and carrying out investigations. Photographs could be taken or photocopiable sheets / smart notebook (which match the posters) to evidence and record.
- All year groups should continue to book lab-time with Chesterfield throughout the year.
- Teachers should incorporate more test-style questions to support KWL grids and aid assessment.