

Science Curriculum Statement

INTENT

Purpose of Study

We intend to provide a high-quality science education which establishes 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 are 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.

Rationale

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IMPLEMENTATION

Our science curriculum has been created to ensure all children study topics that will enable them to develop a greater understanding within Physics, Chemistry and Biology including Seasonal Changes. The topics allow progression so that children build upon their scientific knowledge, skills and vocabulary as they progress through the school. This is underpinned through working scientifically and developing practical enquiry and investigation skills.

The curriculum is implemented through the teaching of a succession of weekly science lessons across the whole school, which are planned to be exciting, practical and engaging for all children, regardless of ability.

The lessons enable the children to create links to the world around them and explore 'real life' situations, and the children to be challenged to question and explain their understanding to others using scientific vocabulary.

Once a year, the whole school works off timetable and participates in a 'science week'. This enables children to immerse themselves in science for the week. The week is carefully planned to excite children about the amazing world of science and inspire them to become future scientists. This week coincides with the Great Science Share Projects. At the end of the week, all classes share their findings with the rest of the school and their parents through a 'science fair'.

It is the school's intent that the implementation of high-quality science teaching will not only have a positive impact on attainment levels but will also result in children who are curious about the world in which they live.

Through offering an exciting, practical and engaging science curriculum, the impact will be in children who are confident, lifelong learners who will continue to explore the world around them long after they leave St. John Fisher and St. Thomas More School.

IMPACT

At St. John Fisher and St. Thomas More, we use ongoing teacher assessments to make judgement on children's attainment in Science.

Early Years Foundation Stage

In the Early Years Foundation Stage, teachers make observations through activities that encourage children to explore, problem solve, observe, predict, think, make decisions and talk about the world around them. From these observations, teachers make their judgement using the Develop Matters document as their guide for what children should be able to do at that age and stage. Children's achievements are evidenced on Tapestry.

Understanding of the World is not counted in the Good Level of Development results. At St. John Fisher and St. Thomas More, we ensure the whole EYFS curriculum is broad and balanced and children are taught this area of the curriculum. When EYFS teachers review their data or conduct a deep dive, if the data for Understanding the World is below expected, the curriculum will be adjusted to ensure the results will be improved. Teachers use the Next Steps document to support them in planning this.

At the end of EYFS, teachers submit their final assessments of children's attainment across all areas of the curriculum. This information is then used for the Whole School Trackers.

Key Stage One and Key Stage Two

In Key Stage One and Key Stage Two, science knowledge organisers are used to assess pupil's knowledge and skills in all areas of science. Teachers use the Knowledge Organisers as an ongoing teacher assessment tool.

At the end of each area of science, teacher's record which pupils are working towards the expected standard, are at the expected standard or are at the greater depth standard for that year group. This information is documented on a Science Class Tracker. Each cohort has a tracker.

At the end of each term, a teacher uses this tracker to make a judgement on each pupil's attainment in science, and this information is placed on the Whole School Tracker.

At the end of the year, the Science Class Tracker is passed on to the next year group teachers to inform them about attainment in all areas of science, and will identify any gaps in knowledge and skills that need to be addressed.

Children will complete a knowledge map before an area of science is taught, and then they will add to it after the learning. This assessment will allow subject leaders to measure the impact of teaching and learning.

