

Intent

At Moorfield we want our children to develop their scientific understanding through a well-planned science curriculum. We believe that children need to learn key facts and vocabulary which they can then apply to practical activities.

The Science National Curriculum sets out clear aims which provide a starting point for our curriculum design.

- 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.

We have simplified this to ensure there is a clarity in terms of what good science teaching looks like in our school.

- To know things – knowledge
- To find out about things – ask and answer questions
- To understand how science can help our world in the future – science capital

Implementation

In their science work, children will be developing their powers of observation, investigation and interpretation. This will be done by learning facts alongside practical hands on tasks. We aim to give our children the opportunity to engage in a range of enquiry types. By posing questions and hypothesizing, children will be able to devise experiments to test their ideas. Recording their findings and drawing conclusions will help children to extend their understanding.

Much of their work will be drawn from everyday situations and the local environment to find out about the world around them. We look for opportunities to teach children about science beyond the classroom by using visitors and news stories to develop their understanding of science in the real world. We have a shared understanding of the value of science within our school community and many homework tasks are set to encourage science to take place at home. We also have a wonderful outside area which includes an allotment and a woodland area. This is used as much as possible.

We have decided to teach Science through a Science week approach, which takes place every half term. Teachers are given the choice as to when this takes place so as to maximise the links to other curriculum areas. We have found that this way of teaching means that we can link science to English and Maths, giving children an opportunity to see science being applied to real life situations. Children and staff favour this teaching style as they feel that it allows them to build on the learning more easily rather than from week to week.

We put a big emphasis on Scientific vocabulary and make this explicit through our success criteria. Staff use the PLAN tracking grids to ensure that teaching and vocabulary is progressive and builds on the work the children have previously covered.

We use short assessment tasks within our lessons to check on the children's progress and use these as a method of recapping on previous concepts and making clear how this links to new learning.

We recognise that there are many opportunities to link science to other subjects such as PE and RSE. Staff are aware of these links through our curriculum maps and share these with the children.

Impact

Science is well taught throughout our school and monitoring activities show that Science is considered a vital subject within our curriculum. Books are well presented with many links to other subject areas. We expect the same standards of written English within science work and children are given the opportunity to both read and write scientific materials.

Children enjoy science at our school and are able to articulate clearly things that they have learnt within their lessons. They always speak with enthusiasm about the subject

Children attain well within science and staff are developing their ability to use published examples showing work at the expected standard to assess where our children are.

Parents and visitors are also aware of the importance of science at Moorfield as there are many examples of our science work shared on the school blog or through classroom displays.

Governors are also kept well informed about the strengths and weaknesses of our science teaching and we have a link governor who supports the science lead.