



Curriculum Intent, Implementation, Impact

SUBJECT: Science
SCIENCE LEADER: Amy Roberts

TEAM: Understanding the World
LEADERS: Amy Roberts & Sarah Plumridge

Science Intent:

Our science provision at Marden Primary Academy aims to develop pupils' knowledge and understanding of our world. It will develop curiosity, encourage respect for living organisms and the physical environment and provide opportunities for investigation and critical evaluation of evidence.

At Marden Primary Academy, scientific enquiry skills are embedded in each topic the children study and these topics are revisited and developed throughout their time at school. Topics, such as Plants, are taught in Key Stage One and studied again in further detail throughout Key Stage Two. This model allows children to build upon their prior knowledge and increases their enthusiasm for the topics whilst embedding this procedural knowledge into the long-term memory. In Reception, children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.

All children are encouraged to develop and use a range of skills including observations, planning and investigations, as well as being encouraged to question the world around them and become independent learners in exploring possible answers for their scientific based questions. Specialist vocabulary for topics is taught and built up, and effective questioning to communicate ideas is encouraged. Concepts taught should be reinforced by focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions.

Implementation:

Teachers are provided with opportunities to work collectively in addition to their PPA, to plan their curriculum.

Teachers develop/plan for the following:

- A knowledge organiser which outlines knowledge (including vocabulary) all children must master;
- A cycle of lessons for each subject, which carefully plans for progression and depth;
- Carefully plan for opportunities to encourage the transference of skills and knowledge and to build upon previous learning.
- Regular opportunities for children to recall knowledge and increase space in the working memory, for example quizzes, mini plenaries, etc
- Challenge questions for pupils to apply their learning in a philosophical/open manner;
- Trips and visits from experts who will enhance the learning experience.

Impact:

Our Science Curriculum is high quality, well thought out and is planned to demonstrate progression. If children are keeping up with the curriculum, they are deemed to be making good or better progress. In addition, we measure the impact of our curriculum through the following methods:

- A reflection on standards achieved against the planned outcomes (key end points) including KS1 & KS2 SATs results;
- A celebration of learning at the end of topic e.g. displays
- Tracking of knowledge in K.W.L grids;
- Pupil discussions about their learning;

The subject leader, alongside the curriculum team leaders and senior management team, are responsible for monitoring and evaluating curriculum progress. This is done through book scrutiny, lesson observations, pupil interviews and staff discussions