23.4.21

RADDLEBARN'S CURRICULUM NEWSLETTER

SCIENCE

Hello and welcome to the first newsletter all about Science at Raddlebarn! Here you will find out how science is taught at Raddlebarn, the exciting opportunities that have taken place and our hopes for the future.

Thank you for taking the time to read this, I hope you find this helpful. If you have any questions, please feel free to ask away!

Miss Montaigu

Raddlebarn's Science Curriculum

Our pupils are growing up in a rapidly evolving world in which science is increasingly relevant. At Raddlebarn, we recognise the importance of developing the children's understanding of the world around them and encouraging their natural inquisitiveness. We want the children at our school to develop awe, excitement and curiosity around science which is constantly present and advancing around them.

Science is taught through engaging and hands on activities both indoors and outdoors, and by linking science to 'real life'. Children are encouraged to ask plenty of questions, hypothesize, find ways to test an idea, make links, and think critically – all while working as a team with their peers.

Each year group has one half-term in which science is the driving subject (or 'topic').

Concepts vs Skills

The science curriculum is split into 2 main sections: the scientific concepts which children must know and understand, and the skills they should learn to apply and master.

The children develop these skills alongside their learning about a specific scientific concept (eg: children may develop the skill of taking precise measurements while learning about the properties of materials).

Each set of skills in the curriculum applies to two year groups at a time (the skills for Y1&2 and different to those for Y3&4 or Y5&6). By the end of the second year, children should be confident in applying these skills, needing less support.

5 Types of Enquiry

Most science lessons will enable the children to experience the process of a scientific enquiry. Here are the types of enquiry that the children are experiencing:

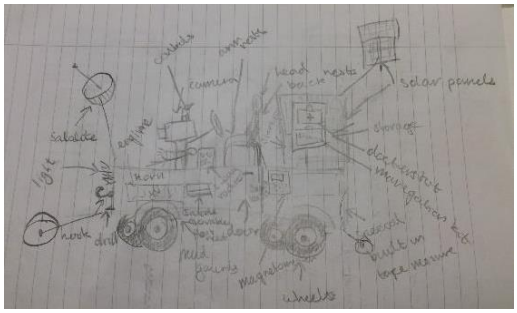
STEAM Projects

This year, each year group will be experiencing something new to the school: a STEAM project! STEAM stands for Science, Technology, Engineering, Arts and Maths. Each project aims to solve a problem or design and create something while applying skills from several of these disciplines (as we do in real life). STEM might sound more familiar, but bringing the Arts into the equation allows for the application of creative thinking and enables artistic children to lend their skillset to these enquiries.

So far, Years 4 and 5 have carried out their projects. Y4 designed and created musical instruments from home while learning about their 'Sound' topic. Year 5 designed and made an innovative Lunar Rover model to present to the European Space Agency during their 'Space' topic.

Other year groups will be carrying their projects during the Summer term.

Some STEAM Project photos



A Lunar Rover annotated diagram

A finished model!

Science Assemblies

Last year, we were lucky enough to have Mark from Hands On Science come into Raddlebarn to lead some assemblies during Science Week. He taught Early Years to Year 2 all about animals and their habitats. Years 3 to 6 learned about various plane designs, and we even made our own paper aeroplanes using two cylinders and some strips of card. Last Autumn, we had an assembly which focused on inspirational women in STEM, such as Janaki Ammal (botanist), Chien-Shiung Wu (physicist), Katherine Johnson (mathematician) and Gladys West (mathematician).

Johnson was a NASA mathematician who helped send the first Americans into space thanks to her incredible calculations. She is one of the most celebrated black women in space science.

Our hopes for the future

We hope to be able to begin a STEAM club in the future, especially since one of our aims is to boost the profile of girls in scientific subjects and increase their confidence. We may also introduce 'Science Roles' into our practical lessons – this would mean children are assigned a role for that lesson (eg: resources manager, or health and safety officer) with which comes some special responsibilities. While we have not been able to carry out Science Week yet, we are looking forward to a wonderful week of science fun as soon as possible!