18.3.22

RADDLEBARN'S CURRICULUM NEWSLETTER

SCIENCE

Hello and welcome to this year's newsletter all about Science at Raddlebarn! Here you will find out how science is taught at Raddlebarn, the exciting opportunities that have taken place.

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

Science at Raddlebarn

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').

5 Types of Enquiry

When answering a scientific question, we need to choose the most appropriate type of enquiry. Here are the types of enquiry that the children are experiencing in science lessons:

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).

Science Assemblies

We have had some lovely assemblies to raise the profile of science in school and inspire more girls to explore scientific careers.

We discussed various jobs which require scientific skills and celebrated the work of some incredible women in different scientific fields of work. Here are some examples:

Mae Carol Jemison became the first Black woman to travel to space!

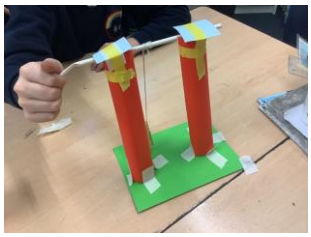
Jane X Luu discovered the Kuiper Belt – bits of ice, rock and comets beyond Neptune that orbit the Sun.

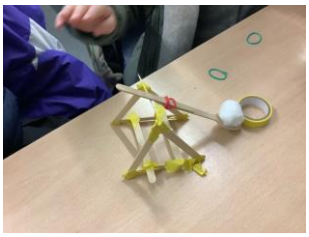
STEAM at Raddlebarn

Each year, all classes are taking on 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). Bringing the Arts into the equation allows for the application of creative thinking and enables artistic children to lend their skillset to these enquiries. We find that all children become really engaged in these projects because everyone can contribute in some way.

Year 5's project was designing and making a new Lunar Rover model for the European Space Agency. Reception designed habitats for endangered local animals (such as hedgehogs or foxes). Year 1 made some amazing vehicles linked to their Transport topic. There are many more to come! Have a look at some of the photos below.

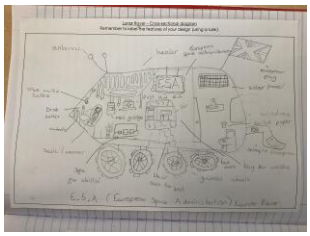
Year 5 got to try out our first ever **STEAM Club** after school! We learned about engineering and simple machines, such as levers, pulleys, winches, wheels and axles, and even made hoop glider planes to explore thrust and lift!



We also learned about the 'design thinking process' which is used for real inventions. First, we empathised with our user, identified a problem to solve, brainstormed solutions, then finally designed an invention to solve that problem.

Some STEAM Project photos




Y5: Lunar Rover design & final model.


Y1 vehicles for their 'Transport' topic

Science Week

This year, we have tried something new to get the children excited about Science Week. Alongside some live lessons which link to this year's 'Growth' theme, pupils from Nursery to Year 6 have carried out an enquiry around which biscuit is the best for dunking. Each year group was applying a specific set of skills, showing progression through the school. For example, Nursery talked about what changed after their gingerbread man got caught in the rain. Year 6 collected data on various biscuits (thickness, mass, price, texture, layers…) and gave each biscuit a dunking score. They then found patterns in their data to establish what made a biscuit the best for dunking, and considered whether more expensive biscuits are really the best dunkers. Check out some of the photos from this week!

Nursery

Y4

Y5