

A SPOTLIGHT ON SCIENCE AT RADDLEBARN



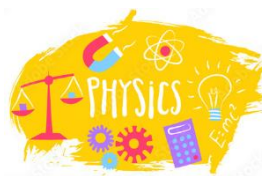
SCIENCE

Hello and welcome to this year's newsletter all about Science at Raddlebarn! Here you will find out how science is taught at Raddlebarn and 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 at least one half-term in which science is the driving subject (or 'topic').

Knowledge vs Skills

The science curriculum is split into 2 main sections: the scientific knowledge which children must understand and remember, and the skills they should learn to apply and master. The children develop these skills alongside their learning about a specific scientific concept. Here is a summary of the skills we develop:

Asking questions

Asking questions that can be answered using a scientific enquiry.



Making predictions

Using prior knowledge to suggest what will happen in an enquiry.



Setting up tests

Deciding on the method and equipment to use to carry out an enquiry.



Observing and measuring

Using senses and measuring equipment to make observations about the enquiry.



Recording data

Using tables, drawings and other means to note observations and measurements.



Interpreting and communicating results

Using information from the data to say what you found out.



Evaluating

Reflecting on the success of the enquiry approach and identifying further questions for enquiry.



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:

Comparative / fair testing

Changing one variable to see its effect on another, whilst keeping all others the same.



Research

Using secondary sources of information to answer scientific questions.



Observation over time

Observing changes that occur over a period of time ranging from minutes to months.



Pattern-seeking

Identifying patterns and looking for relationships in enquiries where variables are difficult to control.



Identifying, grouping and classifying

Making observations to name, sort and organise items.



These types of lessons are an amazing opportunity to apply some of the scientific skills in the left box.



at Raddlebarn

Each year, each class takes on a STEAM project! STEAM stands for Science, Technology, Engineering, Arts and Maths. Each project aims to solve a problem or create something while applying skills from several of these disciplines (as we do in real life). It's been really exciting to see science and the arts combine in this way! Keep an eye out for STEAM Projects on the website, Facebook and Twitter!



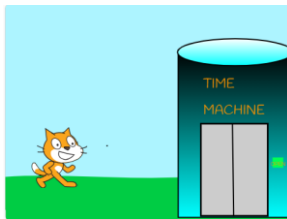
This year, the theme of **British Science Week** is 'Time', which is key to so many discoveries in science, technology, engineering and maths. We kicked off Science Week with a live lesson all about the telling of time through different devices through history, followed by a morning of engaging activities linking to each year group's curriculum.

Next, each class learned about a specific scientist during a guided reading lesson. Later in the week, the children enjoyed some quizzes about famous scientists and their work. We also have had whole school assembly in which we discussed this year's theme. Here are some of the activities carried out during Science Week:

Year 3 learned about the various theories which possibly explain the extinction of dinosaurs, carried out some research and designed information posters about their findings!



Year 6 used their programming skills to make a time travelling machine on Scratch!



Year 4 learned about how time was told before modern clocks. The children then had a go at making their own pendulums and testing out different weights to see the movement of the pendulum.



Year 5 made their own water clocks. Each time a minute passed they drew a line on the bottle at the water line. They were able to observe the water flow to indicate minutes passed.



Year 1 learned about: seasonal changes, how we measure time, different representations of time, life cycles of animals and a focus on Joan Beauchamp Procter.



Year 2 went on a walk around the school to look for nature. We then discussed what else we could do to encourage there to be more wildlife.



Nursery used sand-timers as a way to show what we can do in either 30 seconds or 3 minutes. Using the 30 second timer, the children had to throw a die and carry out the challenge that it landed on!



Reception learned about what plants need to help them grow and also learned about the seasonal changes that take place between Winter and Spring. We planted beans and took them home to grow. We also visited the park to look for signs of Spring.

