

RADDLEBARN'S CURRICULUM NEWSLETTER



SCIENCE

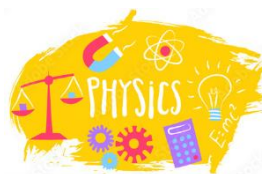


Hello and welcome to this year's newsletter all about Science at Raddlebarn! Here you will find out how science is taught at Raddlebarn and the exciting opportunities that have taken place.

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!

Scientists

This year, we are having a real focus on our knowledge of scientists. We want pupils to be able to talk about several scientists and their work, both old and new. Pupils regularly learn about scientists who link to their current science unit, but during British Science Week, we have had a big push on this aspect of scientific knowledge. It is also important for pupils to understand **how** scientists make discoveries and gather their knowledge, as opposed to only **what** they discovered or created.



Year 5 have learned more about Katherine Johnson, a mathematician for NASA.



Year 4 learned about Anders Celsius, who invented our temperature scale.



Year 3 learned about Percy Shaw, the inventor of the cat's eye.



Year 1 learned about Joan Beauchamp Procter, a British scientist specialising in amphibians.



This year, the theme of **British Science Week** is 'Connections', which are present all around us. For instance, we humans are connected to nature and animals. The organs in our bodies are connected to keep us healthy and scientists must work alongside each other (eg: doctors and paramedics, or astronauts and mathematicians). We kicked off Science Week with a video launch discussing the theme, 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 the 'connections' theme. There has been a real buzz of excitement around school, and pupils can definitely talk about scientists more confidently!

A huge thank you to parents who contributed to the Padlet about their STEM careers - we have loved reading about your jobs, and the pupils who recognised their adult's posts were beaming with pride! <https://padlet.com/raddlebarnhomework/scientists-in-our-families-ffq9abhe3oemvhu>

Check our more Science Week work!

<https://padlet.com/raddlebarnhomework/science-week-activities-72n264e8ekgkqwa2>



Year 3 designed inventions!



Year 4 explored how sound travels.



Year 6 investigated fingerprints and how they are used in forensic science.

Reception had a special visitor talking about plants, and they planted their own seeds!

