

Science Enrichment Week 2025 – “Change and Adapt”

Our annual Science Enrichment Week, linked to National Science Week, is always a highlight of the school year, and 2025 was no exception. This year’s theme, “Change and Adapt”, provided the perfect platform for pupils to deepen their understanding of how matter, forces, plants, animals and humans undergo change. The week showcased high-quality science teaching, hands-on investigation, and the curiosity and enthusiasm that characterise our school’s approach to science.

Launching Our Week: Live Lesson with Astronaut Tim Peake

We began the week with an exciting **Science Live Lesson** exploring what it takes to become an astronaut. British astronaut Tim Peake, who spent 173 days on the International Space Station, spoke to children about:

- how living in space affects muscles and bones
- the challenges of eating, drinking and exercising in microgravity
- what astronauts must learn, practise and adapt to

The interactive session sparked excellent questions and reminded pupils that science is not just something they learn in school - it shapes the world, and worlds beyond. The experience was, quite literally, *out of this world*.

A Week of Scientific Discovery Across the School

Throughout the week, every class enjoyed a packed programme of practical, hands-on and often delightfully messy scientific investigations. These activities were carefully designed to promote curiosity, encourage scientific enquiry and strengthen children’s understanding of the theme “Change and Adapt”.

Highlights included:

Changes in Materials & Chemical Reactions

- using *micro-organisms* (yeast) to inflate balloons
- creating *artificial stomachs* to model human digestion
- exploding *marshmallows in a bell jar* to explore air pressure
- making *elephant toothpaste* to demonstrate rapid decomposition reactions
- producing *plastic from milk* to investigate irreversible changes

Physical Processes & Forces

- experimenting with a *Van de Graaff generator* for hair-raising static electricity fun
- building *lava lamps* to explore density and immiscible liquids
- participating in a *whole-school graph challenge* to analyse data and present findings

Biology & Adaptation

- exploring *evolution yoga* to understand how animals adapt through movement
- designing an *Aston Rowant monster* with adaptations to survive different habitats

These activities strengthened children’s confidence, knowledge and ability to apply scientific vocabulary in context.

KS2 Workshop: Change and Adapt in Action

On Thursday, Mrs Atkins and a dedicated team of scientific parents delivered an extraordinary KS2 workshop exploring sound, the human body and adaptation through highly practical demonstrations.

Pupils investigated:

- ultrasound imaging to detect lamb heartbeats in pregnant ewes
- observing blood vessels opening and closing using medical equipment
- a 3D ear model, showing how sound travels through the ear canal and cochlear bones
- slinkies to demonstrate longitudinal and transverse waves
- Chladni plates and resonators to explore vibration patterns
- using wave machines, instruments and iPads to study frequency and amplitude
- ripple tanks to observe water wave behaviour
- recording sound levels in decibels using school data loggers

We are extremely grateful for the time, expertise and generosity of the adults involved — including our very own vet and paramedic - and to our friends at The Royal Grammar School, High Wycombe, who lent specialist equipment. These real-world connections enriched pupils’ cultural capital and deepened their understanding of how science is used in professional fields.

Our Vision for Science at Aston Rowant

Science Enrichment Week is a reflection of our year-round commitment to delivering a rich, child-centred and enquiry-led science curriculum. Our teaching is based on the Early Learning Goals in Reception and the National Curriculum for Key Stages 1 and 2, ensuring progression and coherence.

Across the school, teachers plan science learning that includes:

- engaging, hands-on experiments
- opportunities to question, predict, test and evaluate
- cross-curricular links to English, maths, computing, art and PE
- space to make mistakes, refine ideas and learn through exploration

We teach science through three core strands:

1. Scientific Knowledge and Understanding

Children enquire into the physical world through observation, investigation and explanation.

2. Working Scientifically

Pupils use scientific enquiry skills to design tests, record results, interpret data and justify conclusions.

3. Science in Action

Children learn how science influences everyday life — from cooking and weather to medicine, engineering, farming and technology.

Through this approach, we aim to nurture **curious thinkers**, **confident investigators** and **future problem solvers**.

A Truly Inspiring Week

Science Enrichment Week 2025 was a vibrant celebration of curiosity, problem-solving and discovery. Pupils were highly engaged, challenged and inspired, developing not only their scientific knowledge but also resilience, teamwork and joy in learning. From exploding marshmallows to ultrasound equipment, from data logging to astronaut training - the week reminded us that science is everywhere, and that changing, adapting and discovering are at the heart of what it means to be a scientist.

Photo Diary - Science Enrichment Week



GRATITUDE RESILIENCE OUTREACH WONDER TRUST HARMONY
Growing together, rooted in God, enjoying fullness of life. (Colossians 2:1-7)