Once Upon A Crime - STEM Week 2025

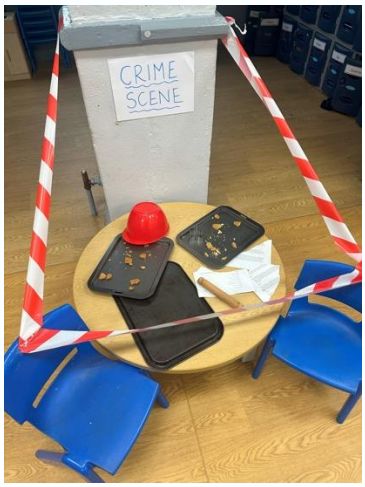
Intent for the Week

Our STEM week is a celebration of science, technology, engineering and maths. Our pupils will see how these disciplines combine together in real-world contexts. The STEM day will help children to understand the skills of crime scene investigators. The children will learn about databases and will use these to solve an imaginary crime scene.

Overview of Activities

Each phase group was given a specific fairytale themed crime. Teachers created crime-scene to match the crime.

EYFS – The case of the missing Gingerbread Man .
Crime scenes included crumbs, gingerbread man outline, buttons/smarties, upturned baking trays/oven gloves

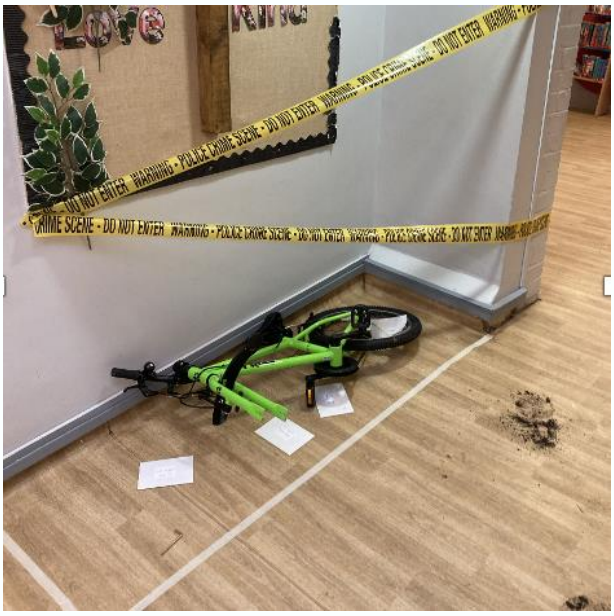


KS1- Case of Cinderella's Broken Slipper

Crime scene included 'Broken 'glass' (cut up Perspex + broken boiled sweets.)

LKS2 –The case of Baby Bear's broken chair.
Crime scene included a chair with crime scene tape wrapped around. A small table with three bowls, spoons, porridge oats.

UKS2 – the case of the Jolly Postman's missing bicycle wheels.
Crime scenes included an upturned bicycle with the wheels taken off. A satchel and enveloped on the floor.



Each class then began their training as CSI investigators and undertook scientific activities linked to this job role.

EYFS: Comparing animal footprints
Year 1 & 2: Fingerprinting
Year 3 & 4: Chromatography
Year 5 & 6: Strawberry DNA extraction

EYFS – Footprint identification

In EYFS, the children explored animal footprints using play dough was then transferred into imaginative play outside. Pupils made their own footprints in the mud kitchen. They also searched for 'clues' inside and out and were engaged in finding the culprit.

Pupil Voice:

Barnaby

'STEM means science, technology, engineering and maths. Engineers fix things like rockets.'

Max

'Technology is making things, even food. We did some food technology and made gingerbread.'

Aarav

'Maths is when you do sums with numbers.'

Maeve

'Scientists makes potions and they find out answers to questions.'

Olivia

'We found out who stole our gingerbread by being detectives.'

Abi S

'We looked for clues! There were biscuit crumbs everywhere.'

KS1 - Fingerprinting

KS1 students enjoyed learning about forensics science by exploring what fingerprints are and how they are used in investigations. They used ink pads to record and observe the patterns in their own unique fingerprints.

Pupil Voice:

Victoria

‘We needed to find the suspect with three clues. We used fingerprints and we made a tree with information’

Daisy

‘We found a glass slipper broken in the hall.’

Libby

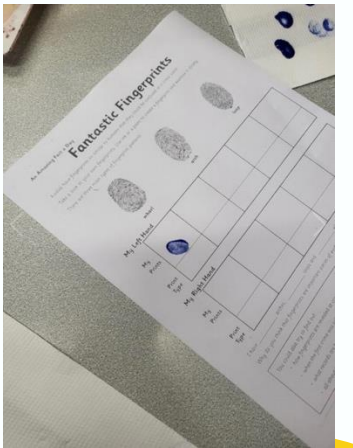
‘I learnt that everyone's fingerprints are different.’

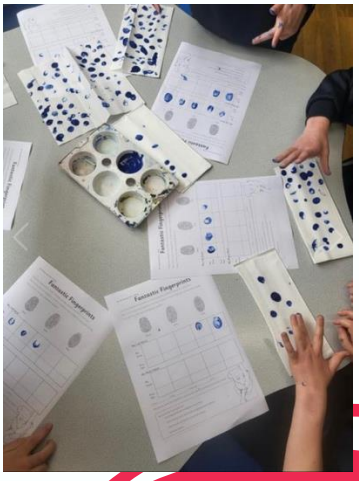
Amelie

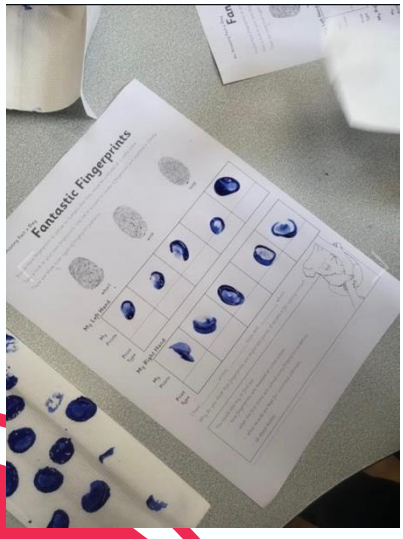
‘We used paint to make our fingerprints but the paint was a bit thick. It was easier to see our fingerprints when the police came, and it did it with us.’

Veer

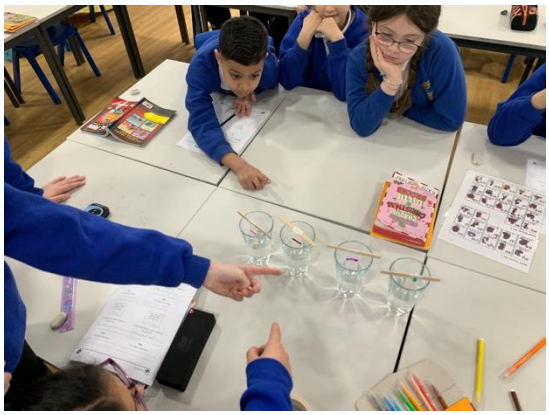
‘We got some paint on each of our fingers and dabbed it on a piece of paper to show our fingerprints.’







LKS2 - Chromatography



LKS2 students enjoyed learning about the science of chromatography. They expressed real enthusiasm at finding out all the colours that combined to make one colour.

Pupil Voice:

Frankie

'I enjoyed the chromatography and learning how pens is made up of loads of colours.'

Eve

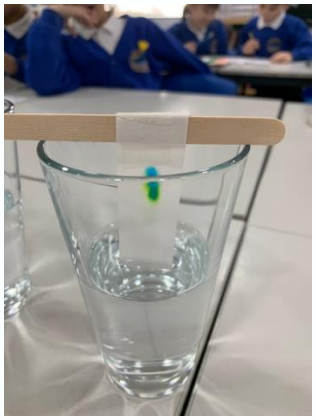
'I liked the chromatography activity! It made one colour into multiple colours on the strip.'

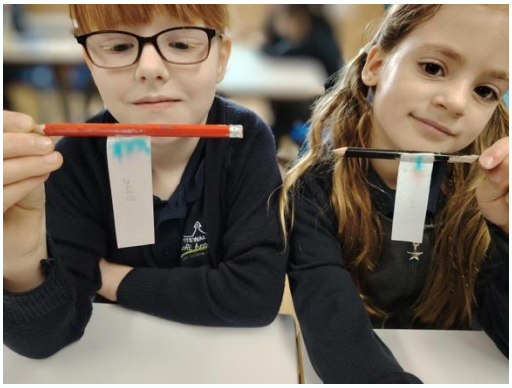
Fran

'I enjoyed the science experiment and watching the colours run through the filter paper to see if there was more than one colour.'

Joe

'The Science experiment was fun, We had to identify the colours inside the tip of a pen. It is called chromatography'





UKS2 – Strawberry DNA

UKS2 students enjoyed the strawberry DNA extraction experiment and all students successfully managed to extract the DNA. They were able to make a clear link to how DNA extraction can help with criminal investigations.

Pupil voice:

Holly

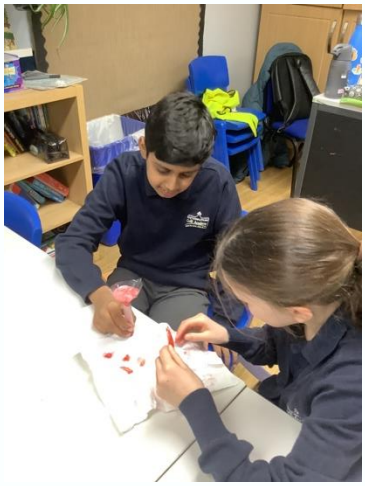
'We extracted the DNA of a strawberry. We used a buffer solution that separated the DNA from the strawberry.'

Bodhi

'The alcohol separated the DNA mixture from the solution so that we could pick it up.'

Jess

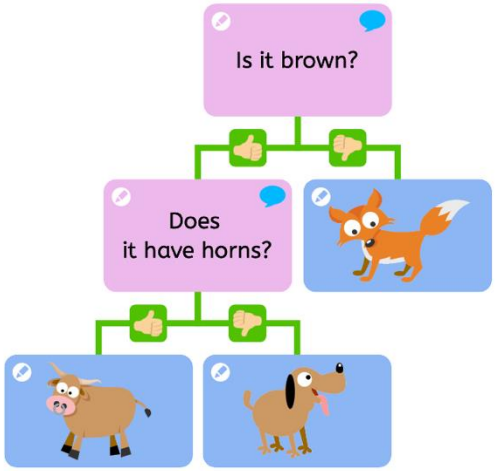
'I learnt to extract DNA from a strawberry. I know now how to use a database. At the end we were able to use the 'and' functions to find who committed the crime.'

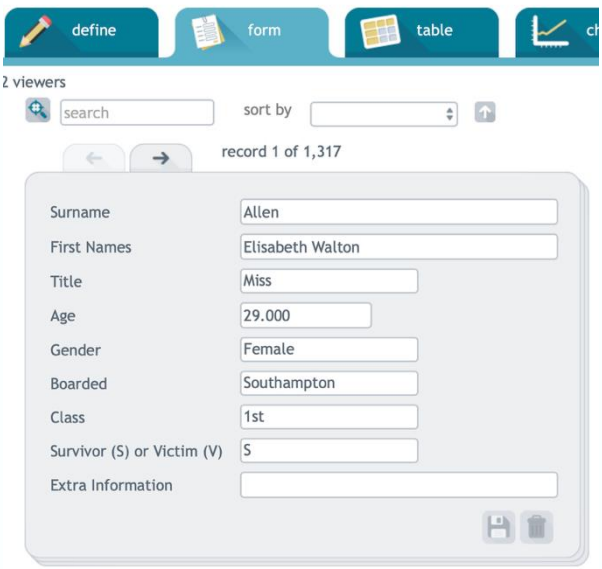


Computing Databases

To solve the mysteries, the children were given a list of suspects. They were introduced to database software to help eliminate the innocent and find the real suspect for their crimes.

Children in KS1 learnt about branching databases. They learnt how to ask relevant questions to filter out the suspects!



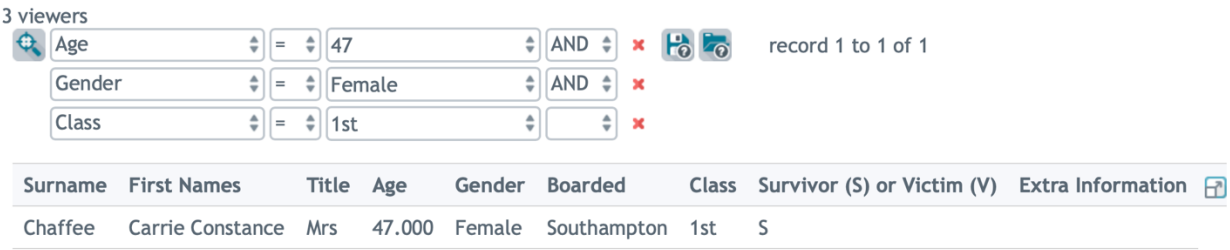


In KS2, the children learnt that a flat field database is a special computer program that helps us store, organise, and search through information really quickly.

It holds information about each suspect person — like their name, height, eye colour.

KS2 children learnt how to search and filter the database with information gained from 'clues' delivered to each class.

By doing this, they narrowed down the list of suspects until only one suspect fits all the clues! – The Culprit!



Charlie
'Using the computers for filling in data was great and much quicker than sorting through the data when using paper.'

This engaging context enabled children to understand the real-world applications of data handling, fostering curiosity, collaboration, and problem-solving. By acting as detectives, pupils were motivated to apply reasoning skills, ask relevant questions, and interpret data to draw conclusions. This hands-on experience not introduced the children to databases and how they work but also built confidence in using technology to support inquiry and decision-making — essential skills for the digital age!

Impact statement:

Our CSI-themed STEM Day on forensic science and databases sparking excitement and curiosity across the school as pupils became young forensic investigators for the day. Pupils discussed and found out what STEM stands for and the activities provided an exciting, hands-on opportunity for students to explore real-world scientific techniques. These activities developed key scientific enquiry skills, including observation, hypothesising, and drawing conclusions from evidence. The experience not only deepened their understanding of scientific enquiry but also sparked curiosity and enthusiasm for STEM subjects. Children were able to use their prior knowledge as inference skills to give plausible predictions about the perpetrators of the crimes. Pupil feedback reflected high levels of enjoyment with a whole-school buzz being felt around the school. Children reported increased confidence in carrying out scientific investigations and working collaboratively with others.

Overall, the CSI STEM Day provided a memorable and meaningful learning experience, enriching the curriculum and inspiring the next generation of scientists and investigators!

To improve the STEM day for next academic year, we will explore, in greater detail, real-life jobs that linked to the STEM focus.