

CSI SHIRLEY

Big idea:
Following
evidence.

SJS Scientists

Properties and changes of Materials

What I already know:

How to group **opaque/transparent** materials. (Y1)

Shadows are formed when light is blocked by an **opaque** object. (Y3)

Some **metals** are good **conductors** of **electricity**. (Y3 - Let it shine!)

Magnets can **attract** some materials. (Y4)

Key Vocabulary:

materials **properties**

solution

mixture

separated

As a scientist, take on the role of a **Crime Scene Investigator** - *working scientifically* to systematically process evidence of a crime. Collect evidence, draw a list of suspects and test your evidence to find the culprit. Be ready to report your findings and bring **justice** to SJS.



I will learn...

- that materials can be **grouped** according to their **properties**, including transparency and response to magnets.

-that some **materials** will **dissolve** in liquid to form a **solution**.

-to use my knowledge of *liquids, solids and gases* to decide how **mixtures** might be **separated**.



Year 5 Autumn 2 Project overview—CSI Shirley

Project: CSI Shirley

Big Idea: Follow the **evidence** wherever it leads.

Year 5 become Crime Scene Investigators when a crime scene takes place within the school day. After collecting evidence from the crime scene, children need to analyse their evidence scientifically to work through a list of suspects and ultimately find the culprit who committed the crime!

HOOK: Crime Scene Evidence Collection Day

OUTCOME: Official Crime Report

Applied Literacy:

Report - Final Police report of crime.

Science experiment write up and Criminal Profile

Applied Mathematics:

Measure - applied measure within science experiments.

Pupil Premium Curriculum Enhancement:

PCSO visit - role of police and how crime is tackled.

Subject: Science - Chemistry

Concept: Materials and their properties

Knowledge:

- compare and group **materials** on the basis of their **properties**, including their **solubility, transparency** and response to **magnets**.
- know that some materials will **dissolve** in liquid to form a **solution**, and describe how to recover a substance from a solution
- use knowledge of solids, liquids and gases to decide how **mixtures** might be **separated**

Working Scientifically:

- Know how to set up a **fair test** using more than one variable.
- Make **predictions** using because and accurate scientific evidence learned from current and previous topics

Curriculum Links:

PSHE—Fair—compassion towards others.

P4C—The Naughtyometer What makes a bad choice? How do you choose a punishment that first to crime? Can a person be all bad?

SMSC and Learning Values:

Moral— Understand the rule of law and understand consequences.

Community—resolve conflict and engage with democracy across the school.

Rule of Law— explore the justice system in the UK and how evidence works within it.

Community links/ Enterprise/ Experiences:

PSCO to come in to talk to the children.