

CRIME SOLVING SCIENCE

Y7 PARENT AND DAUGHTER PRACTICAL EVENT



AIMS OF THE SESSION

- **TO LEARN ABOUT SOME OF THE SCIENCE SKILLS/TECHNIQUES USED IN CRIME SCENE ANALYSIS**
- **TO LEARN NEW SKILLS**
- **TO SOLVE A CRIME**
- **TO HAVE FUN (SAFELY)**



GENERAL HEALTH AND SAFETY

- **KEEP THE BENCHES CLEAR**
- **STAND UP WHEN CARRYING OUT PRACTICAL WORK**
- **ENSURE HAIR/LOOSE CLOTHING/SCARVES ARE PULLED BACK**
- **NO RUNNING**
- **KEEP BAGS/POSSESSIONS OUT OF THE WAY TO AVOID TRIP HAZARDS**



THE CRIME!

**SOMEONE BROKE INTO THE SCIENCE LAB OVER
THE WEEKEND AND STOLE THE KEYS TO THE PREP
ROOM WHERE WE KEEP OUR EXPENSIVE
EQUIPMENT!**



**SOME EVIDENCE/CLUES HAVE BEEN LEFT AND I
NEED YOUR HELP TO WORK OUT WHO THE
CULPRIT IS!**

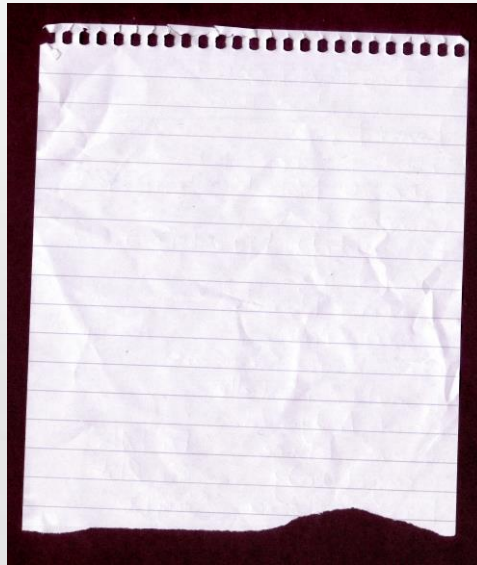


WHAT EVIDENCE WAS LEFT BEHIND...

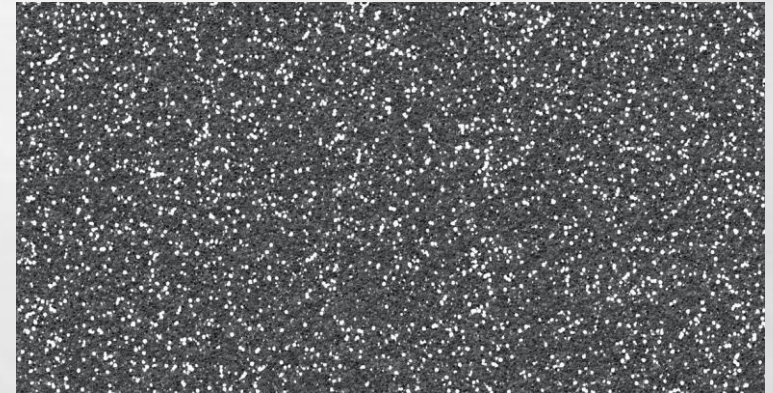
THREE PIECES OF EVIDENCE WERE LEFT BEHIND AT THE CRIME SCENE WHICH WILL HELP US SOLVE THE CRIME:



A fingerprint on the door of the lab

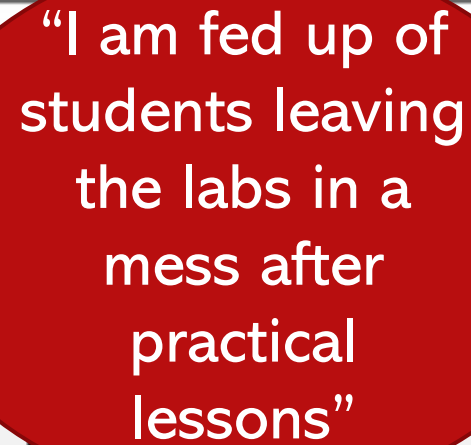


A ransom note left for the stolen keys



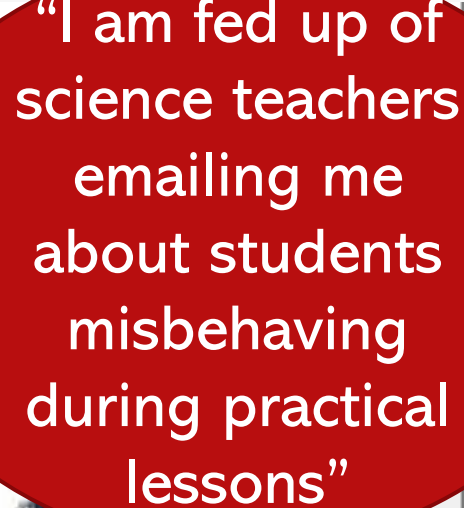
Some white powder was found near where the note was left.

SUSPECTS!



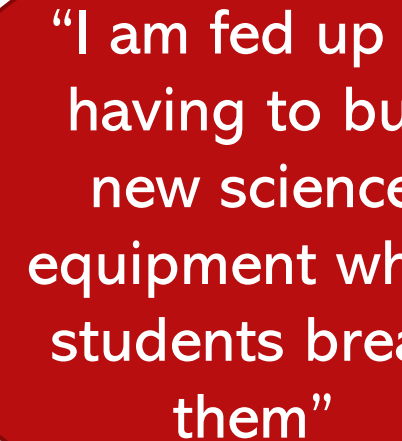
"I am fed up of students leaving the labs in a mess after practical lessons"

Mrs Bateman- science technician



"I am fed up of science teachers emailing me about students misbehaving during practical lessons"

**Miss Dickinson-
Year leader for Y7**



"I am fed up of having to buy new science equipment when students break them"

Mrs Taylor- Finance manager

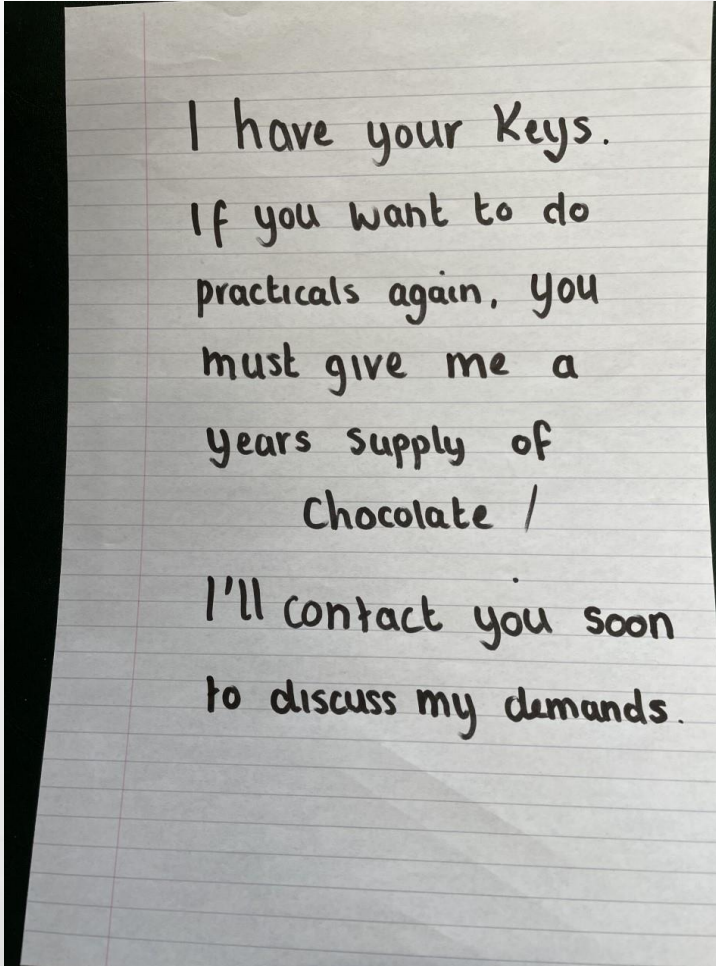
ALL 3 SUSPECTS HAVE WHAT WE CALL A MOTIVE!

TASK 1- RANSOM PEN ANALYSIS

A RANSOM NOTE WAS LEFT AT THE CRIME SCENE. IT HAD BEEN WRITTEN IN A BLACK INK PEN.

ALL INKS ARE MADE OF A MIXTURE OF COLOURS. THESE MIXTURES CAN BE SEEN BY USING A TECHNIQUE CALLED CHROMATOGRAPHY.

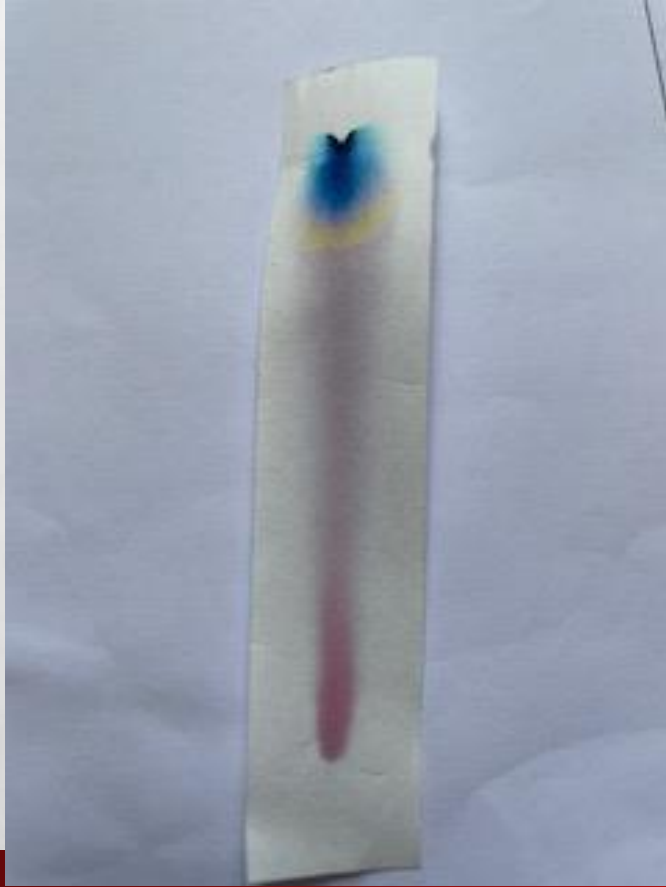
ALL 3 SUSPECTS HAD BLACK PENS ON THEM WHEN QUESTIONED. WE ARE GOING TO COMPARE THEIR MIXTURE OF INKS WITH THE INK FROM THE RANSOM NOTE!



I have your Keys.
If you want to do
practicals again, you
must give me a
years supply of
Chocolate /
I'll contact you soon
to discuss my demands.

TASK 1- RANSOM PEN ANALYSIS (CHROMATOGRAPHY)

CRIME SCENE INK



SUSPECT PENS

Use chromatography to test the inks found in the pens from the 3 suspects.....Do any match the pen used to write the ransom note?

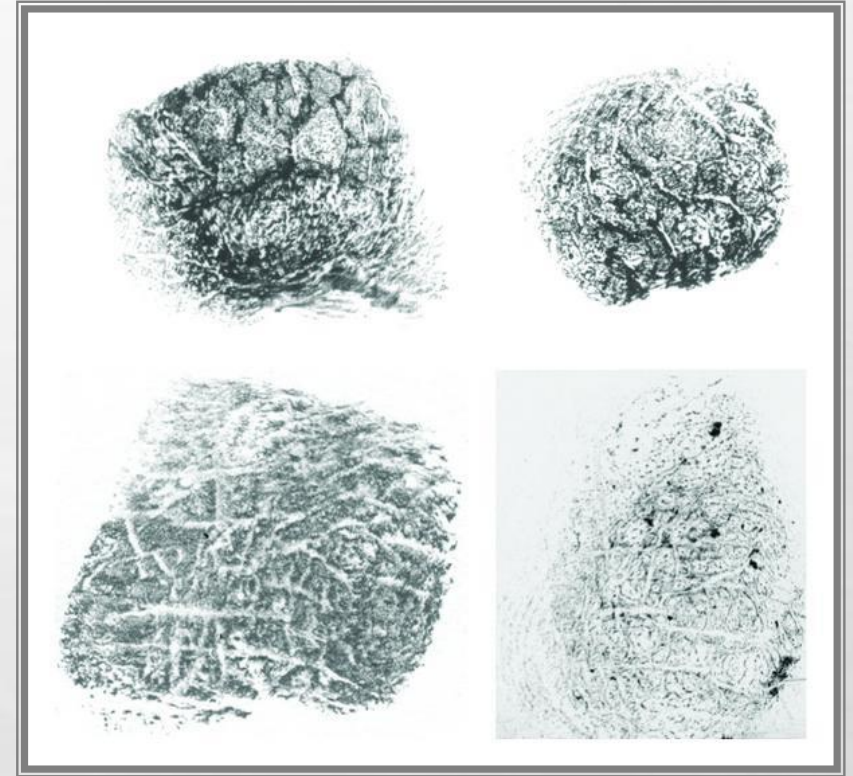
Record your findings on your evidence record card



TASK 2- FINGERPRINT ANALYSIS

FINGERPRINTS ARE UNIQUE TO INDIVIDUALS- EVEN IDENTICAL TWINS HAVE DIFFERENT FINGERPRINTS.

- 1. TAKE YOUR OWN FINGERPRINTS AND USE THE INFORMATION CARD TO IDENTIFY WHAT TYPES YOU HAVE.**
- 2. ONCE CONFIDENT, STUDY THE FINGERPRINT CARDS FROM THE 3 SUSPECTS AND COMPARE TO THE FINGERPRINT LIFTED FROM THE CRIME SCENE. DO ANY MATCH?**



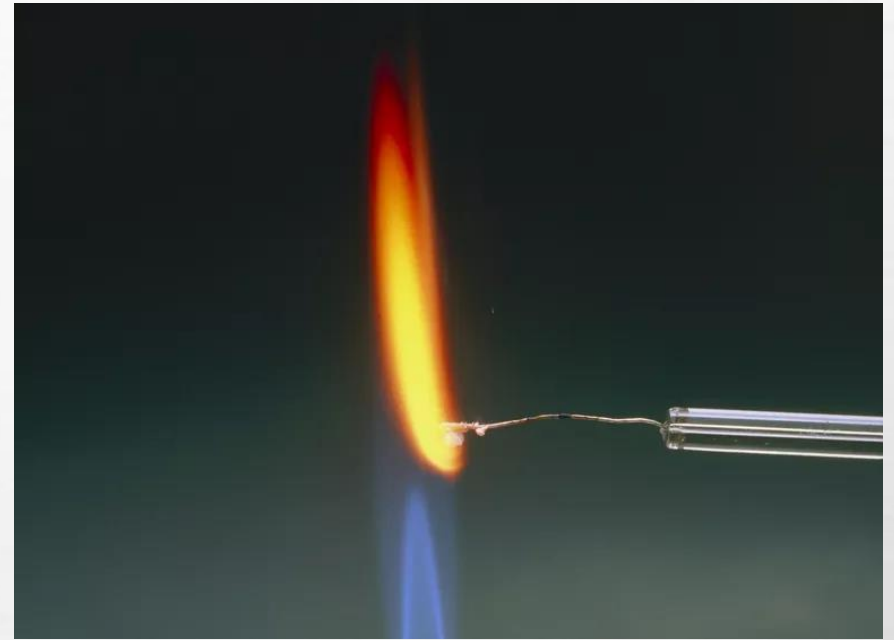
Record your findings on your evidence record card

TASK 3- POWDER ANALYSIS

**A WHITE POWDER WAS FOUND NEXT TO THE RANSOM NOTE
AND MIGHT HAVE BEEN TRANSFERRED FROM THE CULPRIT!**

**THE CLOTHES OF EACH SUSPECT HAVE BEEN SWABBED AND
YOU HAVE SAMPLES OF BOTH THE CRIME SCENE POWDER
AND THE SWABS FROM THE SUSPECTS.**

WE CAN USE FLAME TESTING TO COMPARE THE POWDERS.



**Record your findings on your evidence
record card**

SO.....WHO DO YOU THINK IS THE CULPRIT?

WANTED



Guilty!

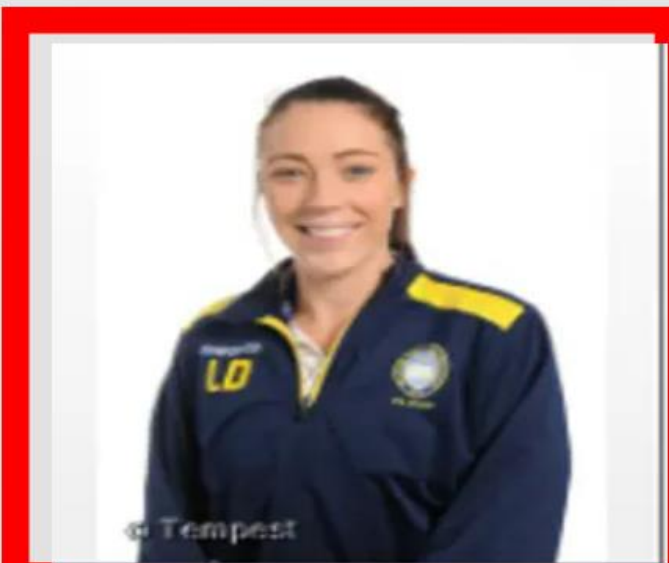
Mrs Bateman
For possible break in and theft

REWARD £500

IF YOU ANY INFORMATION CONCERNING THIS PERSON, PLEASE CONTACT
YOUR NEAREST POLICE STATION

PosterMyWall.com

WANTED



Miss Dickinson
For possible break in and theft

REWARD £500

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