



UNIVERSITY OF
BATH



Case: B94879

Murder of Mrs Smith



Evidence Book

Suspects

Fingerprints

Hair Samples

Soil Samples

Chemical
Analysis

Interviews



MURDER



Mrs Mary Smith was murdered at her home in Bath a week ago and we need your help to process the evidence.

Mary Smith is the owner of Mucci Fashion House (obviously pronounced moochee) and over the past 20 years has built up a fortune. She has lived in her house in Bath with her husband for the past 15 years. She was found dead in her house by a window cleaner who called 999.

Watch the video to find out more about the murder and then use the evidence book to process all the samples we have found.

Once you are done tell the police officer who it was that murdered Mrs Smith.

Suspects

Below are e-fits of the suspects that were identified from interviews with neighbours.

Use these to remind yourself who is under the spotlight for the murder of Mrs Smith.



Kat Walk
Unemployed
Lives in Bath



Dr Alex Ray
Doctor (Radiologist)
Lives in Trowbridge

Relationship to Mary _____

Relationship to Mary _____



Pete Bush
Gardener
Lives in Bradford on Avon



Catherine Weal
Firework Manufacturer
Lives in Melksham

Relationship to Mary _____

Relationship to Mary _____



Doug Smith
Steel Maker
Lives in Chippenham

Relationship to Mary _____

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Fingerprints

Fingerprints from the salt shaker were taken in the hope that the murderer would have left their fingerprints on the glass.

These are a copy of the fingerprints that were obtained. The quality is not particularly good and some of them are smudged.

You need to compare the fingerprints from the salt shaker to the finger prints obtained from the suspects.

Be careful, there might be fingerprints that are not just from the suspects.



F

E

D

C

B

A

Hair Analysis

Use the samples available to work out who the hair samples belong to

Sample 1

Name of suspect it belongs to _____

Sample 2

Name of suspect it belongs to _____

Sample 3

Name of suspect it belongs to _____

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Soil Analysis

A footprint was found in the house. Use the samples of soil available to work out where the soil sample has come from

Soil Sample found in the house

The soil is from _____

Chemical Analysis

1st Part

Use flame tests to determine what colour each metal goes when heated

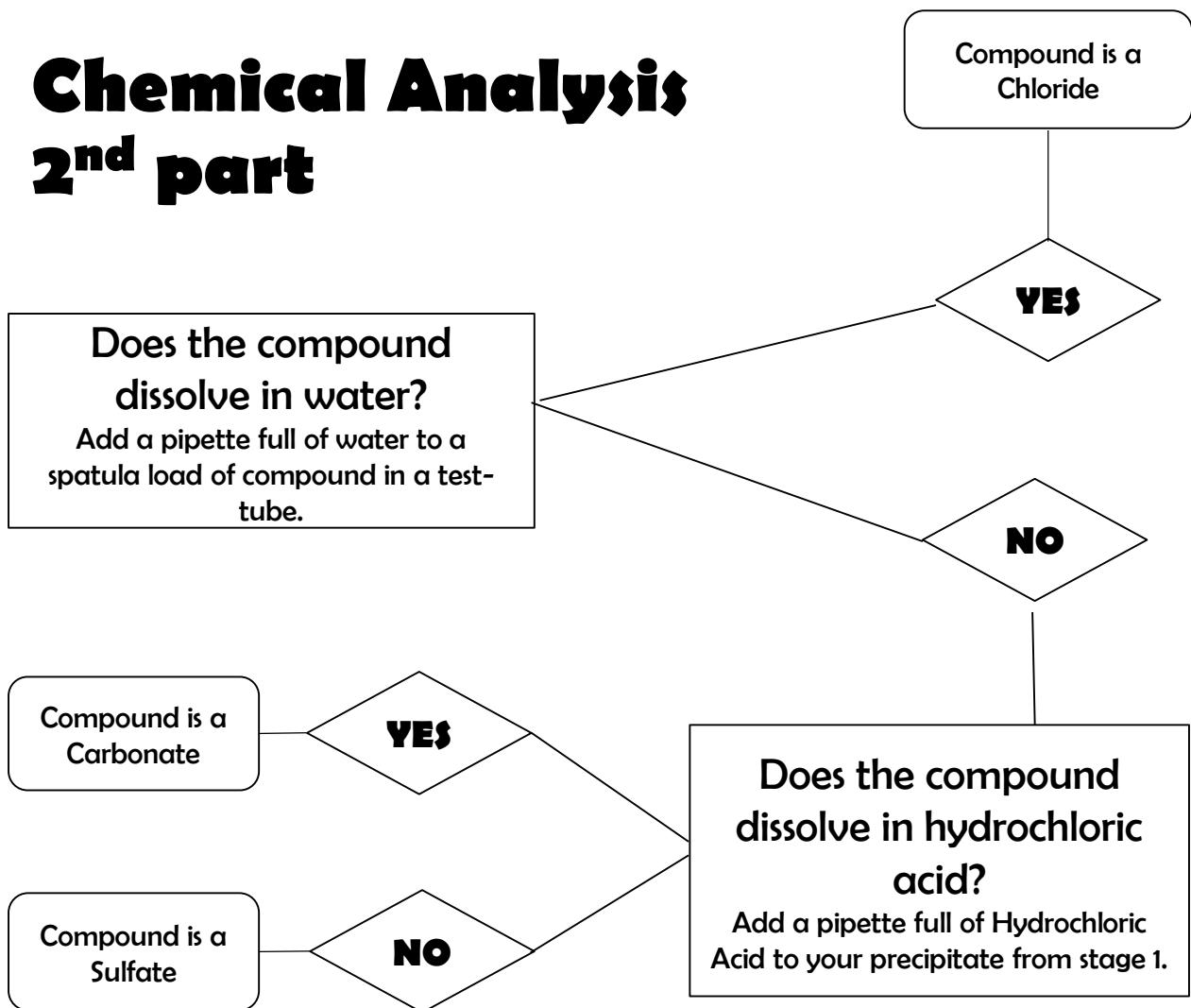
Metal	Flame Colour
sodium	
potassium	
copper	
lithium	
barium	
calcium	

Using the information above complete the table to find out which metal the samples contain

Sample number	What colour does the flame go?	What metal does it contain?
DS1	Apple green	
PB1	Brick Red	
KW1	Brick Red	
CW1	Apple green	
AR1	Apple green	
Salt Shaker		

Chemical Analysis

2nd part



Use the flow chart above to analyse the samples taken from the suspects houses and record the results below

Sample number	What happens?	Is it a Chloride, Carbonate or Sulphate?
DS1	Dissolves in water	
PB1	Doesn't dissolve in water Dissolves in acid	
KW1	Dissolves in water	
CW1	Dissolves in water	
AR1	Doesn't dissolve in water Doesn't dissolve in acid	
Salt shaker		

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Could these chemicals harm anyone?

Combine the information you have found to give each chemical a name and then find out if it could harm a person if they eat it.

To work out what the compound is combine the words from the first and second part of the chemical analysis.

For example 1st Part – Sodium + 2nd Part – Chloride = Sodium Chloride

Sample DS1

What is it? _____

Can it harm anyone? _____

Sample PB1

What is it? _____

Can it harm anyone? _____

Sample KW1

What is it? _____

Can it harm anyone? _____

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Sample CW1

What is it? _____

Can it harm anyone? _____

Sample AR1

What is it? _____

Can it harm anyone? _____

Salt Shaker

What is it? _____

Can it harm anyone? _____

Interview Notes

Decide who you need to interview and what questions you want to ask.
Use the spaces below to record your key notes

Suspect Name: _____

Notes

A large, empty rectangular box with a black border, intended for the student to draw a sketch or write notes about the suspect.

Suspect Name: _____

Notes

A large, empty rectangular box with a black border, intended for the student to draw a sketch or write notes about the suspect.

Interview Notes

Suspect Name: _____

Notes

Suspect Name: _____

Notes

Suspect Name: _____

Notes

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Your final decision

Using all the evidence you have decide who you think has murdered Mrs Smith.

Write your answer in the space below and show the police officer to see if you are correct

The person I think murdered Mrs Smith is:

