

Think Forensic “who dunnit” outline



Timescale - Delivered as a full or half day workshop

Number of students - groups of up to 30 students per workshop. For additional numbers we can run concurrent or shorter consecutive workshops however this may incur additional costs.

Age - 10 to post 16.

Staff – Our staff are from a crime investigation background. We are fully insured and staff are DBS checked.

Format - The workshop can be divided as follows

Part 1

Introduction to forensic science

Roles and careers, CSI, Forensic Scientist – pay, qualifications and roles

Conditions of work, risk of disease/infection

Branches of forensic science, how different subjects fit in

- Biology – Fingerprint expert, entomologist, pathologist, blood and bodily fluids etc
- Physics – Blood spatter, crash and accident investigation, glass examination
- Chemistry – fire investigation, crime scene investigation,
- IT – Computer forensic – pornography, fraud, paedophilia, CCTV
- Maths – Blood spatter, accident investigation, photography
- Geography – mapping, soil, rocks, geology
- Anthropology – Bones, facial reconstruction and identification, cause of death
- Sociology – Social/modern trends
- Psychology – criminal profiling, working with offenders
- Art/Media – Artist impression, compufit, photography, video footage

Fingerprints

Using chemical methods for developing fingerprints
– Which works best in the circumstance?

- porous surfaces using magnetic powder on



- paper and non porous surfaces using aluminium powder
- Developing prints using superglue

Lifting Prints developed with aluminium powder-

Biology behind fingerprints – how fingerprints are formed etc

- Classification and Identification of fingerprint patterns – whorl, loop, arch
- Minutiae – ridge counting, bifurcation, island, dot, core etc

Part 2

Crime Scene Investigation – Hands on session with mock crime scenes.

Students are divided into smaller groups with each group becoming a team of investigators. They will be issued with their own crime scene suit and each team will appoint their own crime scene manager and crime scene photographer. The session is designed to highlight:



Equipment used – including PPE (health and safety – contamination)

Prevention and restriction of access -
Protecting scene – Cordon inner/outer, common approach path

Recording of information –
Photography, logging access and exit, evidence collection log, sketch plan

Gathering, packaging and labelling of evidence with emphasis on integrity and protection from contamination

Part 3

Experiments and analysis

Hair and Fibres - Biological evidence

Morphology of hair (cuticle, cortex, medulla)

Microscopic examination -

- Hair Difference between ethnic background,
- Identifying animal/human hair from samples
- Make up and background of fibres i.e. plant, animal, synthetic

- Locard's Principle - cross transfer of evidence i.e. fibres/hair

Entomology and botany - Biological evidence, microscopy (using school microscopes)

- Establishing the time of death - Insects,
- Establishing and identifying locations, algae, pollen, plants

Shoeprint and tyre tracks – Physical evidence

- Casting marks left at crime scenes
- Electronic lifting apparatus, ESLA and Pathway demonstration
- Gel lifters
- Comparison of scene marks and the difference between conclusive and none conclusive marks in evidence database

Blood



Presumptive blood test – Chemical evidence, Kastle Meyer Test, Hemostix, luminol

Blood Spatter – Physical evidence

- Velocity
- Direction of travel
- Point of origin
- Number of blows

Part 4

Crime management

- Interviewing witnesses/defendants
- Listening skills
- Assessing and allocating resources
- Delegating and deploying manpower
- Requesting expert assistance
- Managing budgets
- Case study



Compufit

- Observation and recall skills preparing a compufit picture of someone present/not present i.e. familiar teacher or peer – designed to highlight credibility of evidence, difficulties with recall and the skills needed for this particular job/career.

Part 5 Courts

On completion of the investigation we can arrange mock courts. Students role play every member of a court and present their own evidence. They will work out their of prosecution and defence strategies.

Cost

The above outline is a guide to available modules. The format of the day is dependent on time available and it is not always possible to include all of the above in a workshop. We are happy to work with you to include the elements you consider important to your particular students.

The cost based on one full day workshop targeting up to 30 students is £680 plus expenses. In order to maximise your budget if you wish to run a full day but want to split the day in two with one group of 30 students in a morning and one group of 30 in the afternoon there is an additional cost of £1.50 per head for each additional student, this is to cover the additional crime scene suits.

We can accommodate full year groups however this may incur additional costs please contact us to discuss this.

Expenses are charged at cost and wherever possible we try to tie workshops in with other schools in the area to keep costs at a minimum. Please contact us to discuss this further.

All prices are subject to VAT.