

KS3 & KS4

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 - 12-16+

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 nonporous 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

Evidence - 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 nonconclusive 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. Student's role play every member of a court and present their own evidence. They will work out their prosecution and defence strategies.

COST

Contact us at hello@thinkforensic.co.uk for a quote.