



FORENSIC SCIENCE SUMMER PROJECT

CSI RESEARCH AND REPORT WRITING

BTEC LEVEL 3 FORENSIC SCIENCE



Welcome prospective year 12 Forensic Science students!

Over the course of the next two years you will undertake several units that visit Biology, Chemistry, and Physics theory, practical investigation skills, and Crime scene analysis techniques. For some of these units, in-depth research is required which need to be presented as a written report. These reports answer an “assignment brief” and should include an unbiased representation of your research.

To best prepare you for September and the ‘jump’ to an A-level way of working, we have prepared a project pack which allows you to research aspects of Crime Scene Investigation techniques. This research will be best presented as a written document to hand in to us in September.

Within this Summer research project, you will find;

- 1. TASK 1- CSI Research**
- 2. Context and TASK 2- Assignment brief**
- 3. Suggested resources for research**
- 4. GUIDE- How to write a Forensic Science report**
- 5. Checklist for writing the report**
- 6. Reading list**

If you need any help while conducting your research, or writing your report, please email Mr. Wood (pwood@bemrose.derby.sch.uk) with any queries and questions.

We look forward to welcoming you into BTEC Forensic science in September!

1. TASK 1- CSI Research

There are multiple aspects to Forensic Science, each involving various methods. These are used to find and collect evidence which can then be examined.

Visit the following website, read all the sections and **choose 3** you are most interested in to use in your research project.

www.forensicssciencesimplified.org/

- Blood stains
- CSI
- Digital evidence
- DNA
- Drugs
- Evidence and witness
- Explosives
- Fingerprints
- Firearms
- Footwear and tires
- Photography
- Questioned documents
- Toxicology
- Trace evidence

Write your three choices down on separate pieces of paper and use these pieces of paper to **record your research**.

Your research will need to include the main principles, applications and procedures for each of you 3 choices.

For each choice using the website mentioned above- clicking the “PDF Download” button will give you a more detailed account to make notes from.

2. Context and TASK 2- Assignment brief

Context- (Setting the scene)

“There are many different types of evidence that can be used in the pursuit of criminals. You are a trainee CSI and you have received a call from your mentor to process a local crime scene. You need to ensure that you have all the equipment needed to limit contamination and to collect the potential forensic evidence. Once you arrive at the scene you must methodically search, preserve and suitably recover all potential evidence for analysis.”

TASK 2- Assignment brief

Produce a written report on at least 5 methods of evidence collection you can use while at the crime scene mentioned above. You have not been given the nature of the crime, nor the types of evidence available to collect, so you must evaluate the best methods that cover any scenario. (If you have a crime scene in mind, describe it including location and crime in your introduction- OPTIONAL)

Example types of evidence to search for and collect can include but not limited to – fingerprints, DNA, tyre tracks, paint, blood stain patterns etc.

For each type of evidence chosen you must describe the different methods used to find, collect, package/store and transport each piece and evaluate which would be the most suitable, considering the following;

- a. Equipment required**
- b. How simple it is to do**
- c. If it can be done at the crime scene**
- d. If it risks damaging the evidence/ if it risks contamination of evidence**
- e. maintaining continuity of evidence**

In your conclusion you must choose 5 methods of Forensic investigation/collection you would use if you had only a limited time at the crime scene, be sure to explain your choices.

3. Suggested resources for research

- <http://www.crime-scene-investigator.net/csi-collection.html>
- <http://www.exploreforensics.co.uk/CollectingEvidenceCategory.html>
- <http://www.hse.gov.uk/>
- <http://www.csofs.org/>
- <https://www.app.college.police.uk/app-content/investigations/investigative-strategies/search-2/>
- www.forensicsciencesimplified.org/

Further useful resources may be found at:

- <http://qualifications.pearson.com/en/support/published-resources.html#step1>

4. GUIDE- How to write a Forensic Science report

Your report should have a clear contents page which outlines the structure. Your main body of writing must be formal and written in third person (which means you do not write “I” or “me”).

Write down all the sources of research, this will need to be included as a list after the conclusion (as a bibliography). Hint, if Mrs Tonry or Mr Garner wanted to read the website you found your information, how would we know where to go?

Lastly, below is an example of how a section of your report may read:

“There are several methods that could be used to collect evidence. One of these methods are shaking, this is where evidence is shaken over a large piece of paper and any loose materials that fall off are collected. The types of evidence it is possible to collect this way could be, glass, hair or paint chips. Another method of collection is brushing, this is where the surface is brushed with a clean tooth/paint brush and the evidence is then collected with paper or a container. The type of evidence that could be collected using this method could be, hairs, items in pocket linings or items in soil.”

5. Checklist for writing the report

Have I...

- a. Researched 3 topic choices in TASK 1 and included the main principles, applications, and procedures for each?
- b. Chosen at least 5 different methods of evidence collection to use in the written report?
- c. Researched my 5 methods of evidence collection before writing my report?
- d. Produced a rough outline for my report, including the main points in each section?
- e. Included an Introduction?
- f. Described and evaluated Evidence collection method 1?
- g. Described and evaluated Evidence collection method 2?
- h. Described and evaluated Evidence collection method 3?
- i. Described and evaluated Evidence collection method 4?
- j. Described and evaluated Evidence collection method 5?
- k. Included a Conclusion?
- l. Written a Bibliography of my research books/ websites?
- m. Overall – Produced a report that describes, justifies, and evaluates all the procedures that CSIs use to preserve, collect and record forensic evidence when processing a crime scene.

6. Reading list

Books:

1. Forensic Science, Jackson and Jackson
2. Applied Science Textbook – this will be available in school

Documentaries:

1. BBC Documentary: Catching History's Criminals: The Forensics Story:
2. BBC: Forensics: The Real CSI
3. This page has some links to forensic science documentaries:
 - <https://www.forensicsciencetechnician.org/50-fascinating-documentaries-for-forensics-science-junkies/>

Website links:

1. Specification:
 - <https://qualifications.pearson.com/content/dam/pdf/BTEC-Nationals/Forensics-and-Criminology/2017/Specification/BTEC-Nat-FDip-ForSci-Spec.pdf>
2. College of policing:
 - <https://www.app.college.police.uk/app-content/investigations/forensics/>
3. Forensic science simplified:
 - <http://www.forensicsciencesimplified.org/>
4. The Forensic Library:
 - <https://aboutforensics.co.uk/crime-scenes/>
5. The analysis of the Crime Scene:
 - https://uk.sagepub.com/sites/default/files/upm-binaries/24001_5_The_Analysis_of_the_Crime_Scene.pdf
6. A guide to Crime Scene Investigation:
 - <https://www.ncjrs.gov/pdffiles1/nij/200160.pdf>
7. British academy of Forensic Science:
 - <https://www.bafs.org.uk/index.php/about-bafs/forensic-sciences>

8. Information on Forensic Chemistry:

- <http://www.chemistryexplained.com/Fe-Ge/Forensic-Chemistry.html>
- <http://www.forensicsciencesimplified.org/drugs/DrugChemistry.pdf>

9. The Forensics of blood:

- <https://lindblomeagles.org/ourpages/auto/2013/11/16/48289636/The%20Forensics%20of%20Blood%20Article.pdf>
- <http://www.forensicsciencesimplified.org/blood/BloodstainPatterns.pdf>

10. Information on Fingerprint analysis:

- <https://www.crimemuseum.org/crime-library/forensic-investigation/fingerprints/>
- <http://www.forensicsciencesimplified.org/prints/Fingerprints.pdf>

11. Preservation of crime scenes:

- <https://www.crime-scene-investigator.net/evidenc1.html>
- <http://www.forensicsciencesimplified.org/csi/CrimeSceneInvestigation.pdf>

12. Types of Forensic techniques:

- <https://sciencing.com/list-forensics-techniques-6392795.html>

13. Information on Forensic genetic testing:

- <https://www.wired.com/story/what-is-genetic-testing/>
- <http://www.forensicsciencesimplified.org/dna/DNA.pdf>

14. Information on Forensic toxicology:

- <http://www.forensicsciencesimplified.org/tox/Toxicology.pdf>

15. Further reading on Forensic science aspects and techniques:

- <http://www.forensicsciencesimplified.org/>