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| **Briefing sheet** |

In this activity you will learn about plagiarism and why it is wrong.

**1** What does plagiarism mean?

**2** Do you think plagiarism is over emphasised? Give a reason for your answer.

**3** These three extracts have been taken from the *New Scientist* article: ‘Controversial forensic DNA test gets the green light’. Below each is a way of rephrasing the extract. Can you spot which one in each case has not been plagiarised?

**Extract 1**

**i** Even though Caddy’s report backs the science behind the analysis, it doesn’t back the lack of uniformity in the way that forensics teams collect and translate DNA evidence, and the fact they are not aware that contamination with DNA can falsify matches.

Although Caddy’s report backs the science behind the analysis, it criticises the lack of uniformity in the way that police forensics teams collect and interpret DNA evidence, and the lack of awareness that contamination with DNA could falsify matches.

**ii** Caddy has said that forensic teams do not all collect and interpret the evidence that they find. There is also the added problem of forensic teams not realising that contamination with other DNA can lead to the wrong conclusion.

**iii** Caddy’s report might have supported the analysis’ science, but it criticises the lack of uniformity in the forensics team’s collection and interpretation of DNA evidence, and that contamination with DNA could falsify matches.

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**Extract 2**

There are also technical problems with the process caused either by the unexpected appearance in DNA profiles of extra chunks of DNA, or the disappearance of chunks that should be there. The former is caused by contamination, the latter because working with such tiny quantities means sometimes the amplification enzymes miss bits of DNA.

**i** Sometimes through contamination we find that there are DNA sequences that are not supposed to be in the profile. Alternatively, the amplification enzymes miss sections of DNA and these sections will not appear in the profile.

**ii** There are technical difficulties with the process when there is either a sudden appearance of extra chunks of DNA, or the disappearance of bits that were meant to be there. The first appearance is because of contamination, the disappearance is because of working with small amounts so the amplification enzymes miss chunks of DNA.

**iii** The technical problems which occur are caused by contamination where there is the unexpected appearance of extra chunks of DNA, or the disappearance of chunks which should be there, which is caused by working with such tiny amounts of DNA, that the enzymes don’t work properly.

**Extract 3**

As to the technique itself, the panel said it was satisfied that the three organisations offering the service to the police in the UK had each taken the required steps to ensure reliability and repeatability, even though the validations hadn’t been independently peer-reviewed and published.

**i** Regarding the technique itself, the panel were happy that the three organisations offering the service to the UK police force had made sure that they had ensured reliability and repeatability, even though this had not been independently published and peer-reviewed.

**ii** The panel says of the technique, that it was satisfied that those organisations offering the service to the police had each taken the required steps to ensure reliability and repeatability without independent peer review and publication.

**iii** All reliable techniques are usually written up, submitted for publication and undergo the peer-review process. However in this case the panel stated that the organisations offering the technique had done more than enough to make sure that results would be reproducible and accurate.

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**4** Have a look at the abstract entitled ‘Application of plant DNA markers in forensic botany’ (http://www.sciencedirect.com/science?\_ob=ArticleURL&\_udi=B6T6W-4JVTCDC-1&\_user=10&\_rdoc=1&\_fmt=&\_orig=search&\_sort=d&view=c&\_acct=C000050221&\_version=1&\_urlVersion=0&\_userid=10&md5=d5019bda6ff843f2b4603f109bf0f4aa). Read it, and ask your teacher or look up the terms you do not understand. Turn over the abstract so that you can no longer see it and then write down what you remember in your own words.

**5** In your group, discuss how similar to the original your ‘remembered’ versions are. Then agree and write down three key points for avoiding plagiarism in your work. You should consider methods of taking notes and remembering which are less likely to result in exact repetition of sources.