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| **Session 13:** |  **Virtual Labs** |

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## Assessed criteria

Criteria E: AIE

**Research Questions**

“How can Punnett Squares predict the traits of offspring?”

“What techniques are used in the lab for genetic fingerprinting?”

**Background Information**

1. A Punnett square is a graphical representation of the possible genotypes of an offspring arising from a particular cross or breeding event. Creating a Punnett square requires knowledge of the genetic composition of the parents. Fruit flies share 75% of the genes that cause disease with humans, so scientists can learn about human genetics by studying fruit fly genetics. They are also easy to study, and cheap to breed. The fly lab at Columbia University is very famous for its discoveries using the *Drosophila* fruit fly.

Follow this link and the instructions on the website to perform your own investigations:

<http://www.mhhe.com/biosci/genbio/virtual_labs/BL_05/BL_05.html>

1. It is common to hear about genetic testing on the news or on TV and films, but how is it done? The amount of DNA recovered form a patient or from a crime scene in tiny. Scientists have developed techniques to amplify the amount of DNA in samples, and then sequence and analyse it.

Follow this link and work your way through the 5 virtual labs:

<https://learn.genetics.utah.edu/content/labs/>

**Results**

Write your answers to the analysis questions here.