Workstation 4: DNA

I can identify a mixture by observing its components.
I can explain how evidence is used to support or refute ideas.

DNA is a molecule that gives cells their instructions. Every living thing has a different DNA code, so CSI technicians can identify living things by analysing their DNA.

The police are investigating a crime, and have found some strands of hair at the crime scene. The hairs are the same colour as the hair of one of their suspects, so they think that this person committed the crime. They want the CSI technician to analyse the DNA of the strands of hair, and compare it to the suspect's DNA.

I take the hairs to a special laboratory that has the equipment I need. I use a machine called a centrifuge to extract the DNA from the hair samples. I then test the DNA to analyse it. I check the tests that I have performed to make sure they are accurate, and often another CSI technician will check them as well.

The DNA analysis produces a pattern, or code. I can compare the code from the crime scene hairs to the code of the suspect's DNA.

The DNA codes in this case were not the same. In fact, the DNA code of the hair samples from the crime scene showed that the hairs came from a dog!
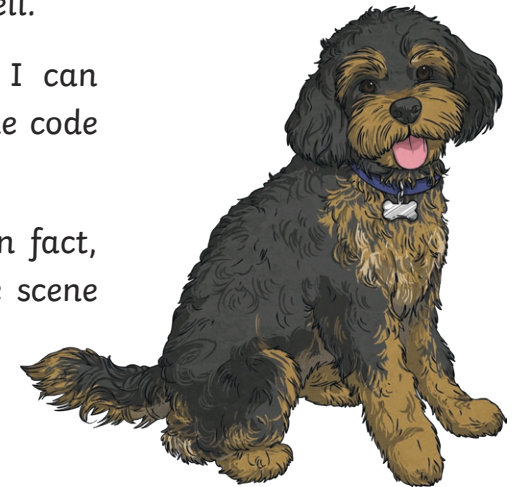
Does my analysis of the evidence support or refute the police detective's ideas?