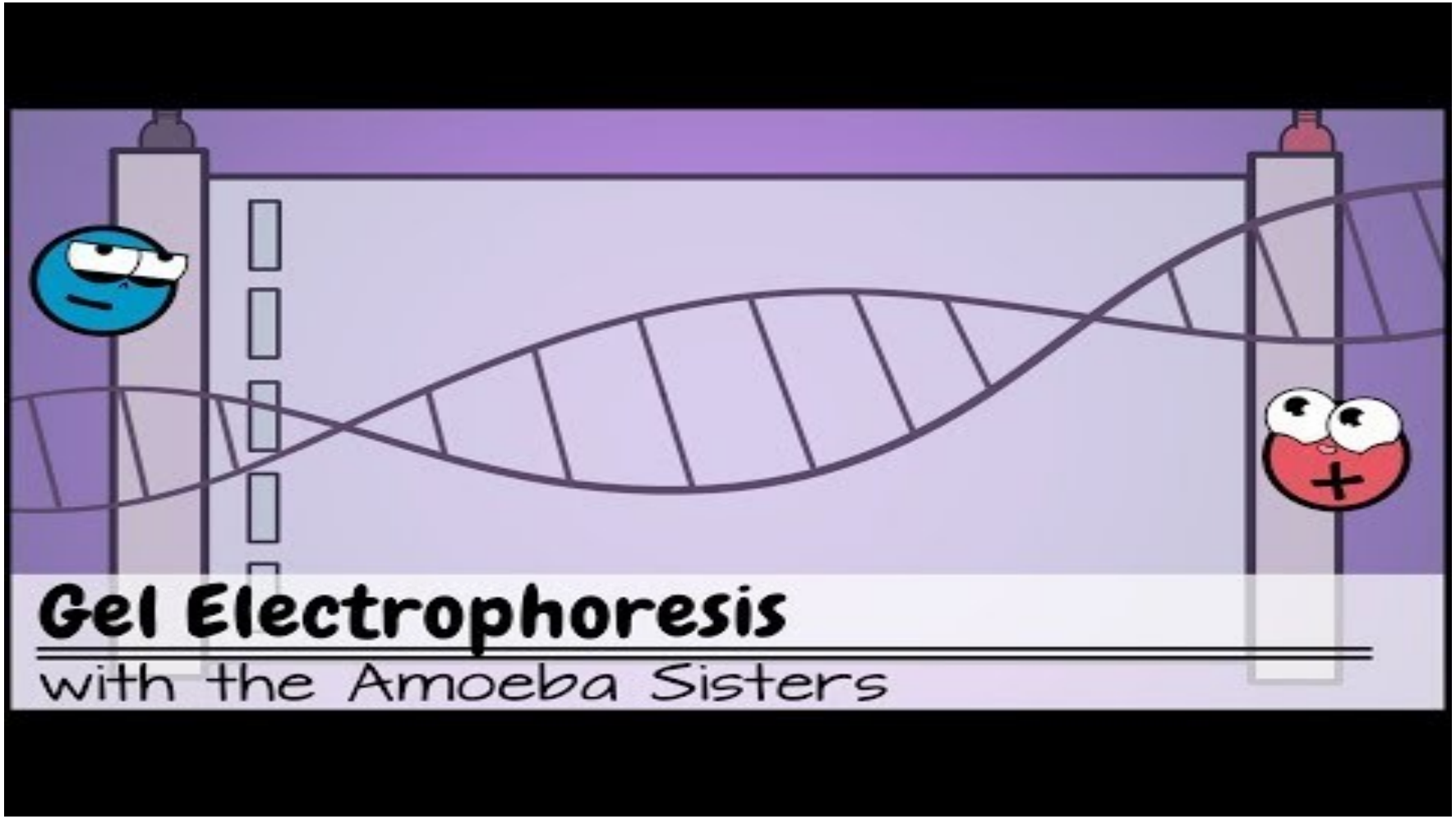
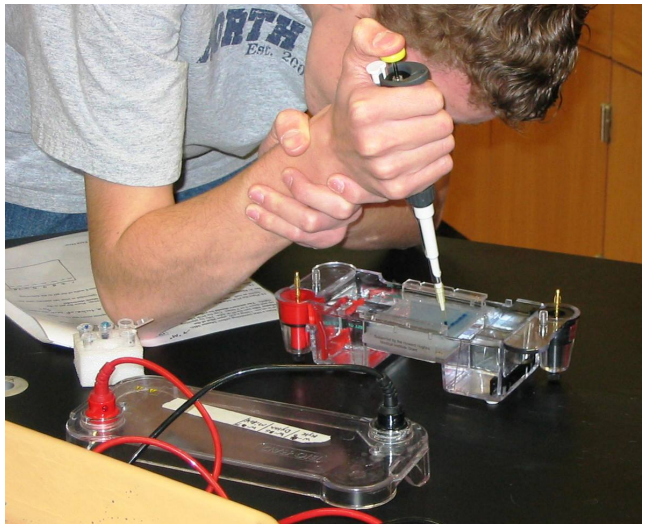
Gel Electrophoresis with the Amoeba Sisters (8:07)

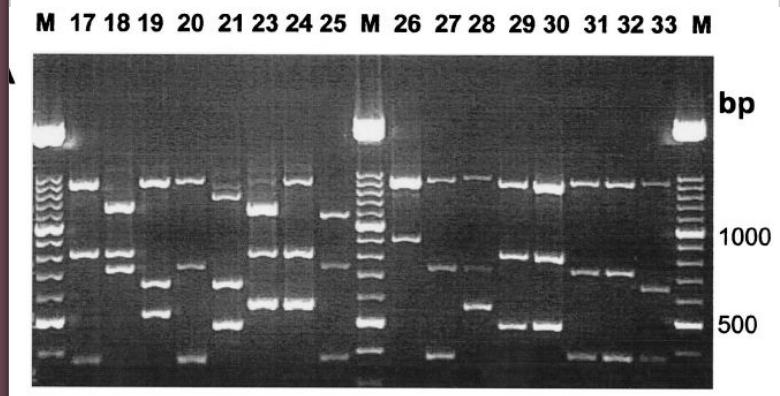


Using DNA to solve crimes:

Most DNA samples submitted to a laboratory undergo the following process:

1. **Extraction** is the process of releasing the DNA from the cell.
2. **Quantitation** is the process of determining how much DNA you have.
3. **Amplification** is the process of producing multiple copies of the DNA in order to characterize it.
4. **Separation** is the process of separating amplified DNA product to permit subsequent identification.
5. **Analysis & Interpretation** is the process of quantitatively and qualitatively comparing DNA evidence samples to known DNA profiles.
6. **Quality Assurance** is the process of reviewing analyst reports for technical accuracy.





What is Gel Electrophoresis?

- Gel electrophoresis is a technique commonly used in laboratories to separate charged molecules like DNA, RNA and proteins according to their size.
- Charged molecules move through a gel, called migration, when an electric current is passed across it.
- Small segments of DNA migrate faster than larger segments.
- Segments are measured in Base Pairs (bp)

Crime Scene Simulation