Name	Per	Date

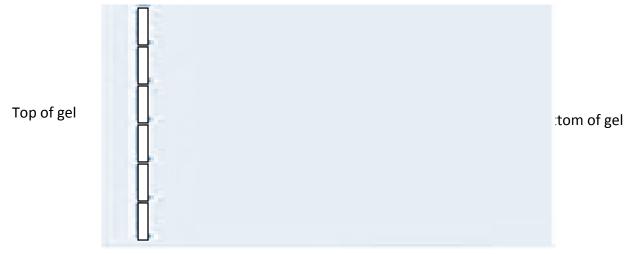
Forensic Science: Gel Electrophoresis

Use information from notes, demonstrations, online resources and each other to answer the following:

1. Draw a gel electrophoresis chamber and label the following: agarose gel, TBE buffer, electrophoresis chamber, power supply, DNA samples, cathode (include charge), and anode (include charge).

- 2. What is agarose gel? What is its purpose?
- 3. What is the purpose of restriction enzymes (use an analogy of how they work to help you explain)?
- 4. Based on the demo, how do you load DNA samples into gel wells?
- 5. What charge does DNA have? Toward which charge will DNA travel in the gel?
- 6. How long does electrophoresis run for?

- 7. What problem arises if the electrophoresis is run too long?
- 8. What is the purpose of methylene blue stain?
- 9. Draw your results for the agarose gel, (be sure to label each well with the sample):



10. Which suspect matches the crime scene sample? Support your answer.

11. Give several examples of how this technology can be used in forensic science.