Name:

Introductory Gel Electrophoresis

*Use the “Student Guide” to answer questions pertaining to Gel Electrophoresis*

1. What is gel electrophoresis?
2. What does a gel electrophoresis manipulate?
3. What do you apply the samples to?
4. How do you make an agarose gel?
5. What is the comb used for in agarose gel?
6. Why is the gel covered with a buffer?
7. What do you do with the comb after pouring the buffer, why?
8. What are the different ends of the chamber described as?
9. How do molecules move once the electric current is applied?
10. What affects the speed of a molecule’s travel through a gel?
11. Which molecules will travel more quickly?
12. What does the size of a molecule have to do with movement through a gel? Describe this.
13. What is the objective of the gel electrophoresis activity?
    1. Why are we putting the comb in the middle rather than at a different end of the chamber?

*Learn.genetics.utah.edu/content/labs/gel/*

*Use the guided practice from Utah Genetics to complete the following*

*After completing the questions complete a gel electrophoresis online practice*

1. What does the liquid contain?
2. How are DNA stands sorted? (meaning, on what criteria are they sorted)
3. How do you sort something so tiny?
4. Can we see the DNA under a microscope?
5. What (other than DNA sorting) is gel electrophoresis used for?
6. What could we compare the process of preparing the gel to?
7. Where do the DNA samples go when loading?
8. What is added to make the samples move?
9. Why do we stain the DNA?

Now complete the practice set up of electrophoresis… this will familiarize you with how the process works in a real lab