**Online Simulation: Gel Electrophoresis**

Go to: <http://learn.genetics.utah.edu/content/labs/gel>

Answer the following questions as you work through the simulation.

1. What is your objective in this online simulation?

2. What strategy will you utilize to sort DNA by size if it is too small to see with a microscope?

3. What 2 things can be separated through the process of gel electrophoresis?

4. Describe the appearance of the gel (agarose) at a microscopic level.

5. What substance gets added to the gel once the DNA stands are in?

6. Describe how different length pieces of DNA migrate/move through the gel.

7. How must the DNA in the gel be prepared before you are able to view it?

8. What is the agarose made from?

9. Why do you add the liquid buffer to the agarose?

10. What is at the end of the mold to hold in the agarose?

11. What is the purpose of adding the comb into the gel?

12. Why must you add loading buffer to the DNA sample? (2 reasons)

13. In real life, is loading the DNA into gel that simple?