

Toothpickase Lab Answer Sheet

Graph and Analysis Questions: **You will be turning in this paper with your handwritten graph to Google Classroom.**

1. You are modeling an enzyme-substrate interaction. In this model, what represents:
 - a. The enzyme?

 - b. The substrate?

2. Construct an appropriately labeled **line graph** of your results. Your graph should show the relationship between substrate concentration and enzyme reaction rate.
3. On your graph, **predict** how the factors listed below would affect the reaction rate of *Toothpickase*. Represent each situation as a different color and label each scenario:
 - Effect of temperature on enzyme activity? → What if your hands were cold?
 - Effect of pH on enzyme activity? → What if you taped up your thumbs?
 - Effect of substrate concentration on enzyme activity? → What if you added 200 toothpicks?
 - Effect of enzyme concentration on enzyme activity? → What if two sets of hands?
 - Effect of an inhibitor on enzyme activity? → What if we added plastic toothpicks?