

## NEED FOR SPEED ANALYSIS

1. In this activity, what object represented the enzyme? The substrate? The inhibitor?
2. In Trial 1, why did the rate (i.e. the number of pennies) eventually decrease? What could have been added to maintain the initial rate?
3. If more substrate were present in Trial 1 at the beginning, would the initial rate have been higher? Why or why not?
4. If we assume that the enzyme is represented by the hand, what happened to the active site during Trial 2?
5. Why does an enzyme not work as well if its active site is changed? What environmental factors affect the enzyme shape?
6. What effect did inhibition have upon the reaction rate?
7. How might chemicals affect you if they acted like inhibitors during your bodily reactions?
8. At the end of the reaction, what happened with the enzyme (your hand)? Had it been altered from how you originally started? What can you conclude from this on what happens to enzymes in the cell?