

Student Sheet

Enzyme Board Games

Name: _____ Period: _____

Purpose: To learn the role of enzymes in our bodies and how they influence chemical reactions. You will demonstrate this by creating a board game and then playing the games.

Background Information: Please read section 2-4, starting on page 49 in your textbook. Please define, in your own words (you won't get credit unless they are your own words) the following terms:

Chemical reaction:

Reactant:

Product:

Activation Energy:

Catalyst:

Enzyme:

Substrate:

Now answer the following questions:

1. What happens to chemical bonds during chemical reactions? How does this differ between the products and the reactants?
2. What are enzymes and how are they important to living things?
3. Explain in detail the role of carbonic anhydrase in your body.
4. Describe the role of energy in chemical reactions.
5. Explain 2 factors that can influence enzyme function.
6. Draw and explain the enzyme substrate complex.

Procedures:

1. After completing the background information you will now create a board game.
2. You must include 20 questions related to the information found in section 2-4.
3. You will provide the questions and an answer key.
4. You will also need to create a game board, pieces, directions, and any other necessary supplies to play your game.
5. Your questions should be typed as well as the directions.
6. You will be graded in large part on creativity and accuracy.

Grading Rubric:

Creativity:	50 pts
Accuracy:	50 pts
Gameboard neat and attractive:	20 pts
Questions Typed and answered:	20 pts
 Total:	 140 pts

Hint: To help you with this assignment think of other board games that you have played: Balderdash, Cranium, Chutes and Ladders, Risk, Operation, Candyland, Monopoly, Trivial Pursuit...You may also just create your own unique and fun game!