

**Enzyme Review Worksheet**

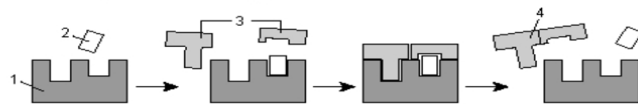
**Part A:** Define the following terms in your own word. Be clear and concise!

metabolism	
substrate	
enzyme	
active site	
coenzyme	
metabolic pathway	
activation energy	

**Part B:** Short Answers

- The equation  $ADP + P_i \rightarrow ATP$  is energy (*requiring or releasing*) \_\_\_\_\_.
- In the pathway below, the letters stand for \_\_\_\_\_ and the numbers stand for \_\_\_\_\_. Each and every reaction in a cell requires a specific \_\_\_\_\_.  

$\begin{matrix} 1 & 2 & 3 & 4 \\ A \Rightarrow & B & \Rightarrow & C & \Rightarrow & D & \Rightarrow & E \end{matrix}$
- If an enzymatic reaction is heated *gently*, it will \_\_\_\_\_.
- Enzymes \_\_\_\_\_ the amount of activation energy necessary for a reaction to take place by putting its substrates on a precise "collision course."
- In the equation  $S + E \rightarrow SE \rightarrow P + E$ , what do the letters stand for?  
 S: \_\_\_\_\_ P: \_\_\_\_\_  
 SE: \_\_\_\_\_ E: \_\_\_\_\_
- Name two environmental factors that can change the shape of an enzyme.  
 i. \_\_\_\_\_ ii. \_\_\_\_\_
- Name two factors that can speed up enzymatic reactions  
 i. \_\_\_\_\_ ii. \_\_\_\_\_
- Enzymes have helpers called \_\_\_\_\_. A common example of the latter is NAD. What is the function of NAD in cells? \_\_\_\_\_.
- Label the parts on this diagram.



1	
2	