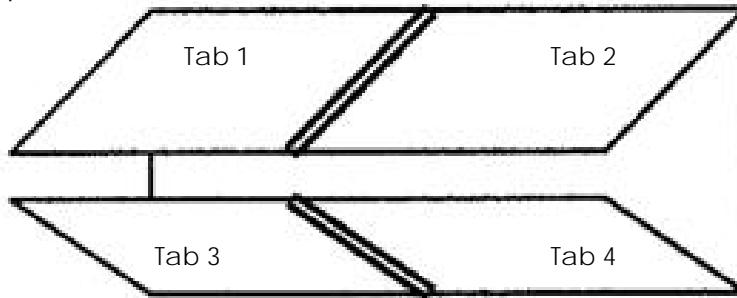


# Enzyme Foldable Instructions

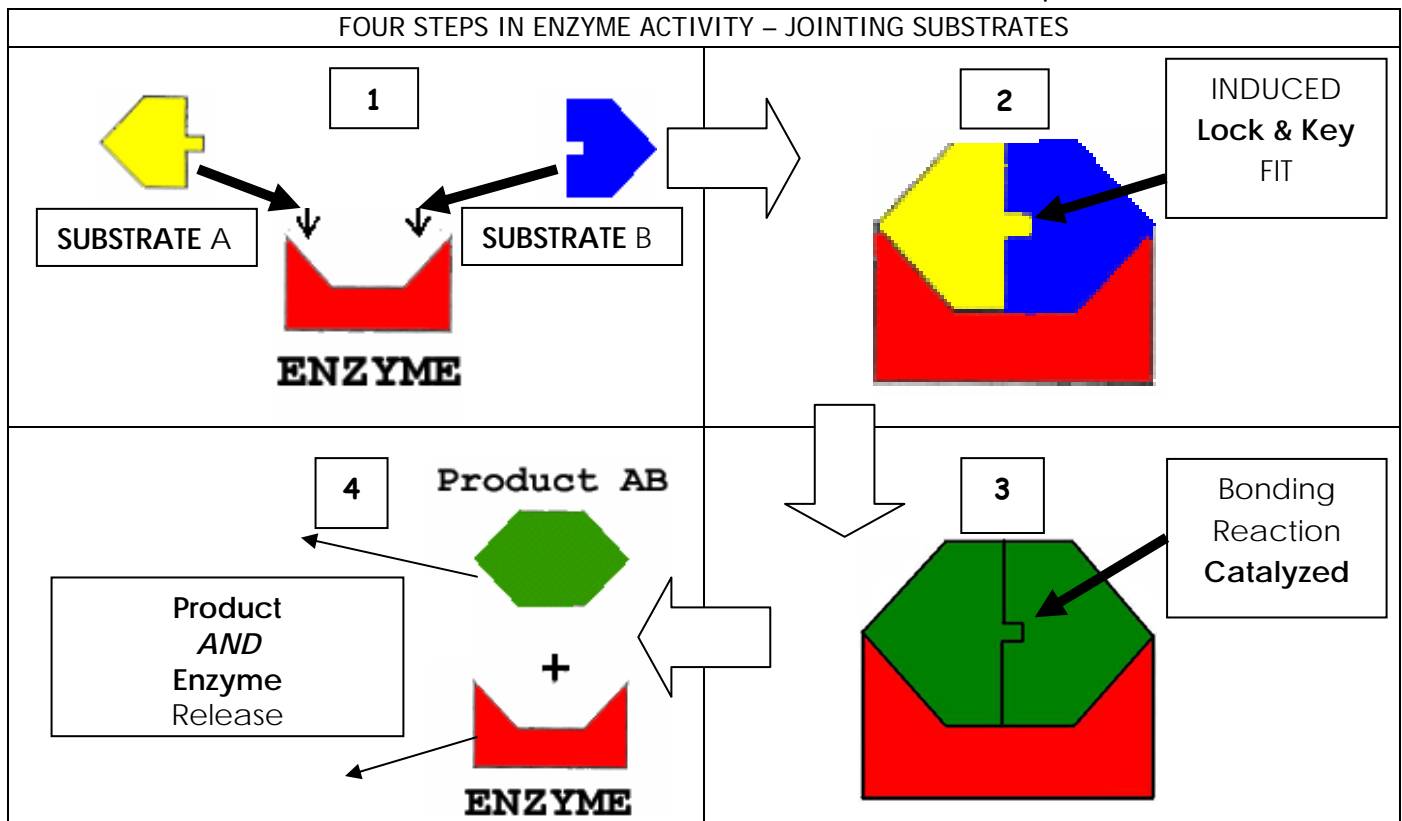
**Step 1:** Use the foldable pattern below to create a four-tab, shutter fold as shown below [like the one we did yesterday!]



**Step 2:** On the very top edge of the foldable, title your work today as **"FOUR STEPS IN ENZYME ACTIVITY - JOINING SUBSTRATES"**

**Step 3:** On the **FRONT** of each tab, draw and color the 4 general steps of enzyme activity using the sketch below. Color the enzyme RED in every step.

The substrate A will be = YELLOW, the substrate B will be = BLUE, and the end product GREEN.



**Step 4:** On the **INSIDE** of each tab, LOOK UP [p. 161-163] and LIST the following:

- a. Tab 1 - Meaning of the words ENZYME, SUBSTRATE, & ACTIVE SITE
- b. Tab 2 - Explanation of "INDUCED FIT / LOCK AND KEY"
- c. Tab 3 - Definition of the word "CATALYST" and meaning of "Biological Catalyst"
- d. Tab 4 - Examples of biological enzymes useful in our cells (3 to 4 examples) AND the process they catalyze.

# ENZYME HAND PRINT ACTIVITY

Step 1: On a blank piece of colored paper, spread your hand out as wide as possible so that all of it still fits on the paper.

Step 2: Trace around your hand so that your hand print is on the paper

Step 3: Label the top of your paper with the title of the subject "5 Facts About Enzymes"

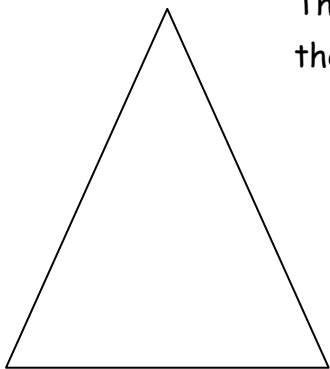
Step 4: Number each of your fingers, in order, from 1 to 5 with large numbers. It does not matter which side you start on.

Step 5: Write within each of the fingers and thumb the 5 facts that are true of **ALL** enzymes.

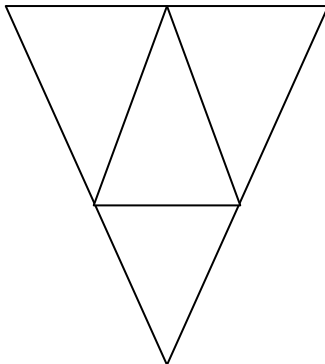
1. Enzymes are **HIGHLY SPECIFIC!**
2. Enzymes are **REUSABLE!**
3. Enzymes are **BIOLOGICAL CATALYSTS!**
4. Enzymes are **FRAGILE - ABLE TO BE DENATURED EASILY!**  
!!!! The most important feature to an enzyme is its **SHAPE** !!!!!!!
5. Enzymes work in **ONE DIRECTION OR THE OTHER, BUT NOT BOTH!**

Step 6: Just outside the fingers, **EXPLAIN WHAT EACH OF THESE STATEMENTS MEANS!**

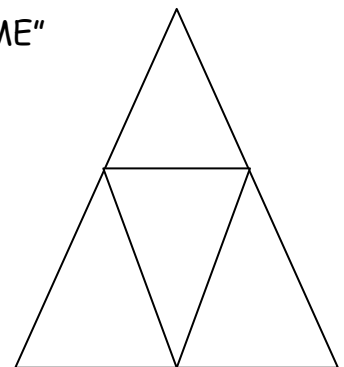
Step 7: On the back of the paper, draw a very large triangle the full size of the paper:



Then, turn the paper upside down and draw a smaller triangle inside the big triangle:



Then, turn the paper back over and Fill in the center with:  
"THREE THINGS THAT WILL  
DENATURE  
AN ENZYME"



Step 8: List the three factors that affect the activity of the Enzyme in each of the three corner triangles.