

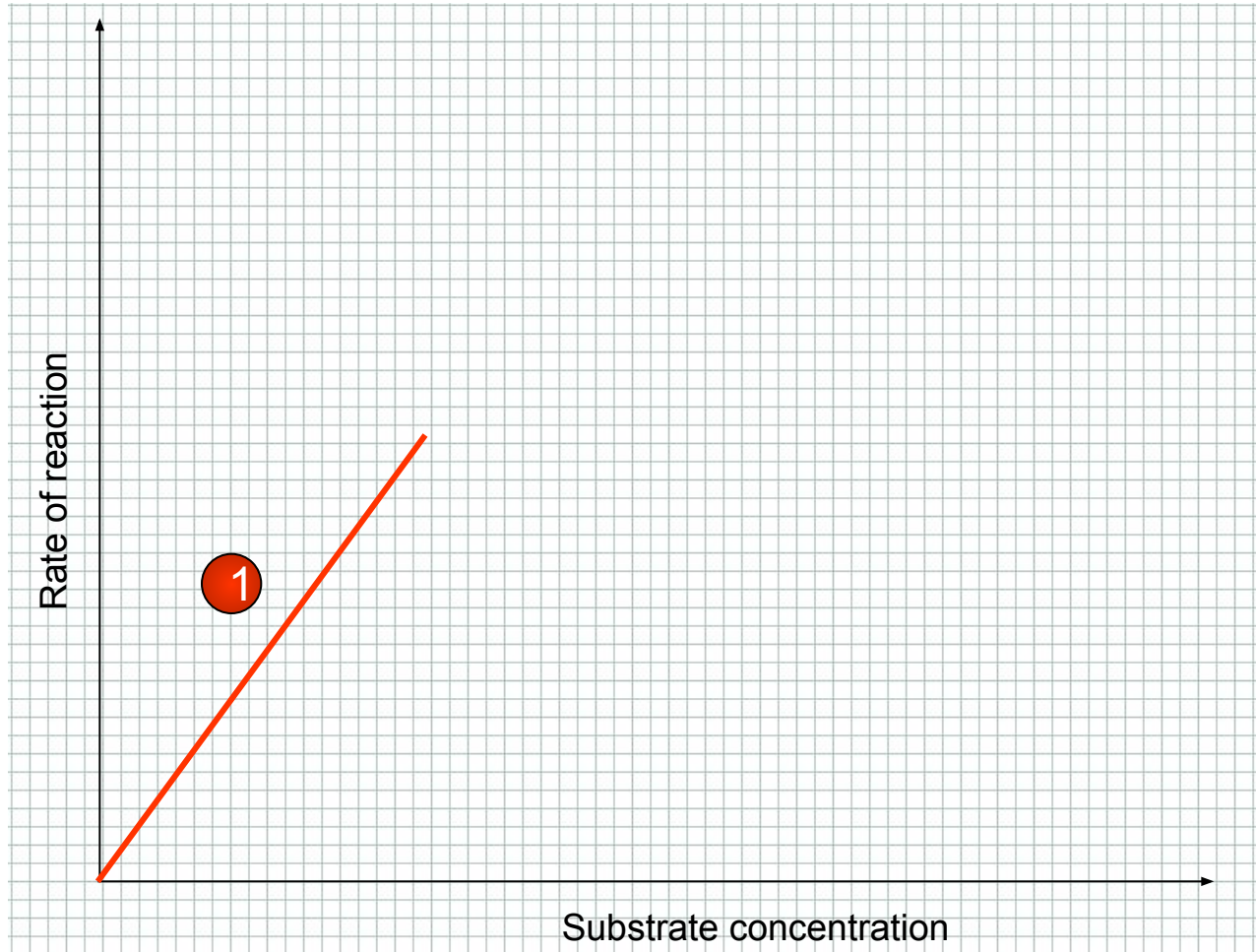
GRAPHS TO SHOW THE EFFECTS OF INHIBITORS ON ENZYME ACTION

*NAVIGATE YOUR WAY THOUGH ALL OF THE
ANIMATIONS CLICKING ON EXPLANATIONS
EACH TIME*

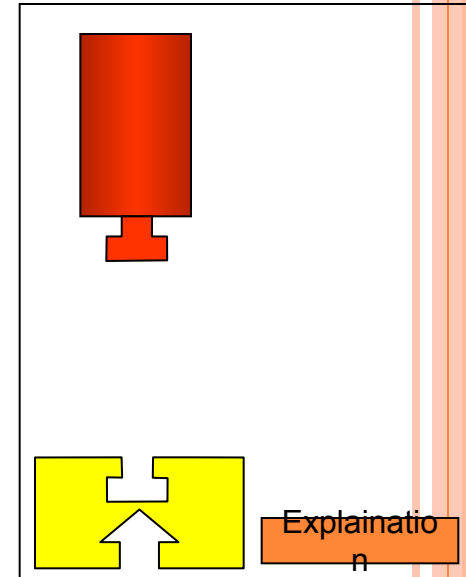
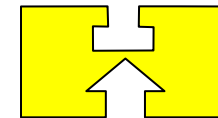
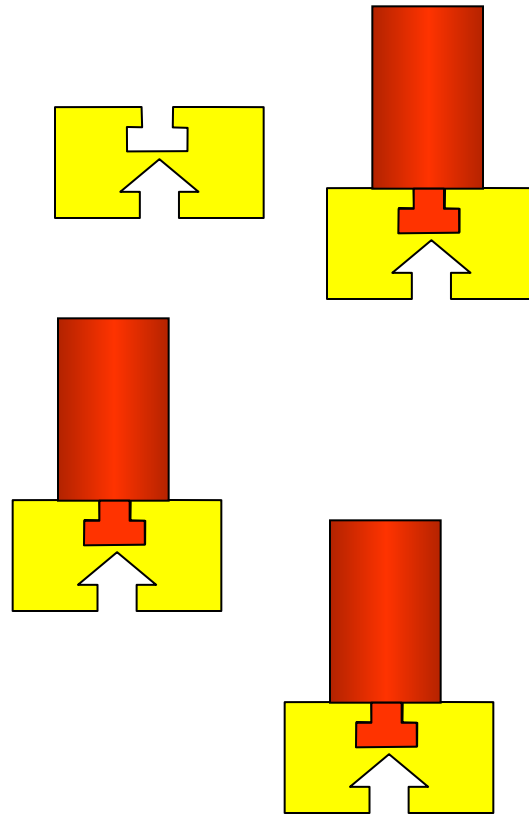
THEN COMPLETE THE WORKSHEET



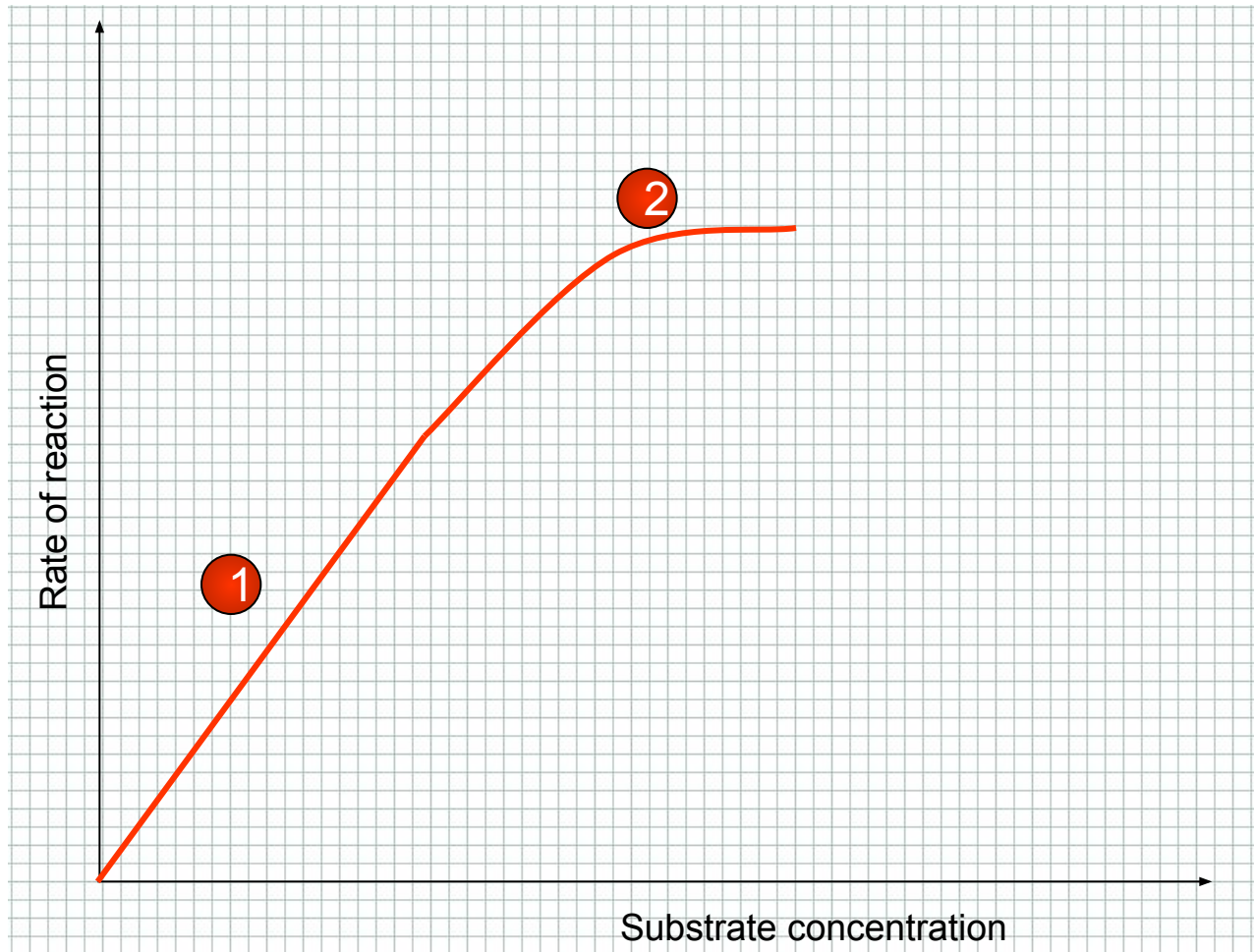
NORMAL ENZYME REACTION RATE



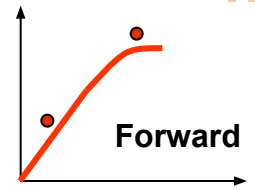
NORMAL ENZYME REACTION RATE



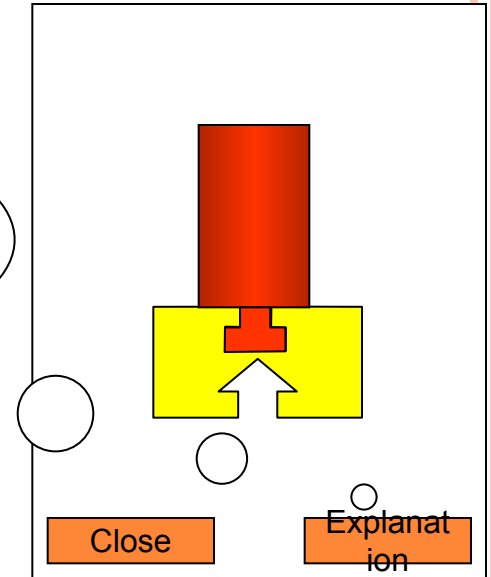
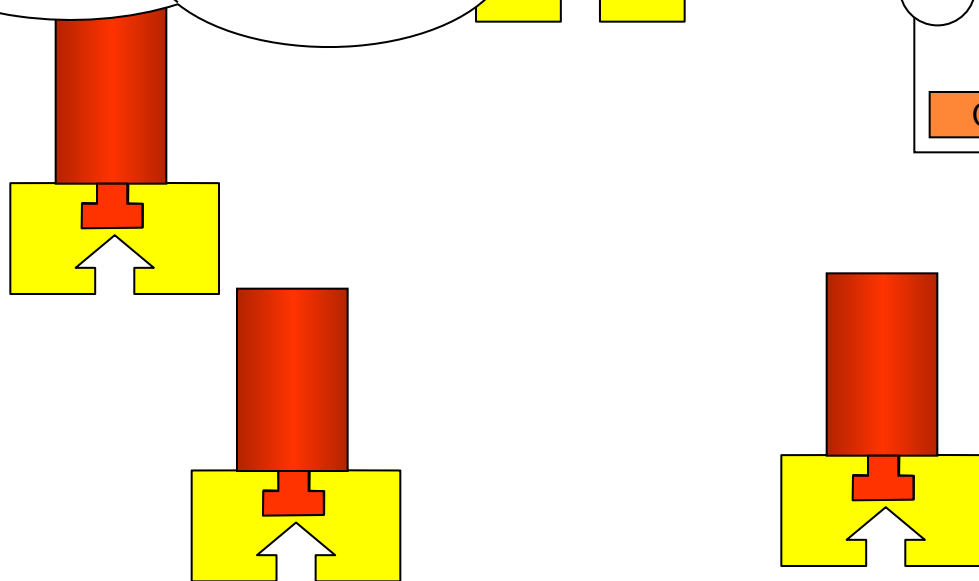
NORMAL ENZYME REACTION RATE



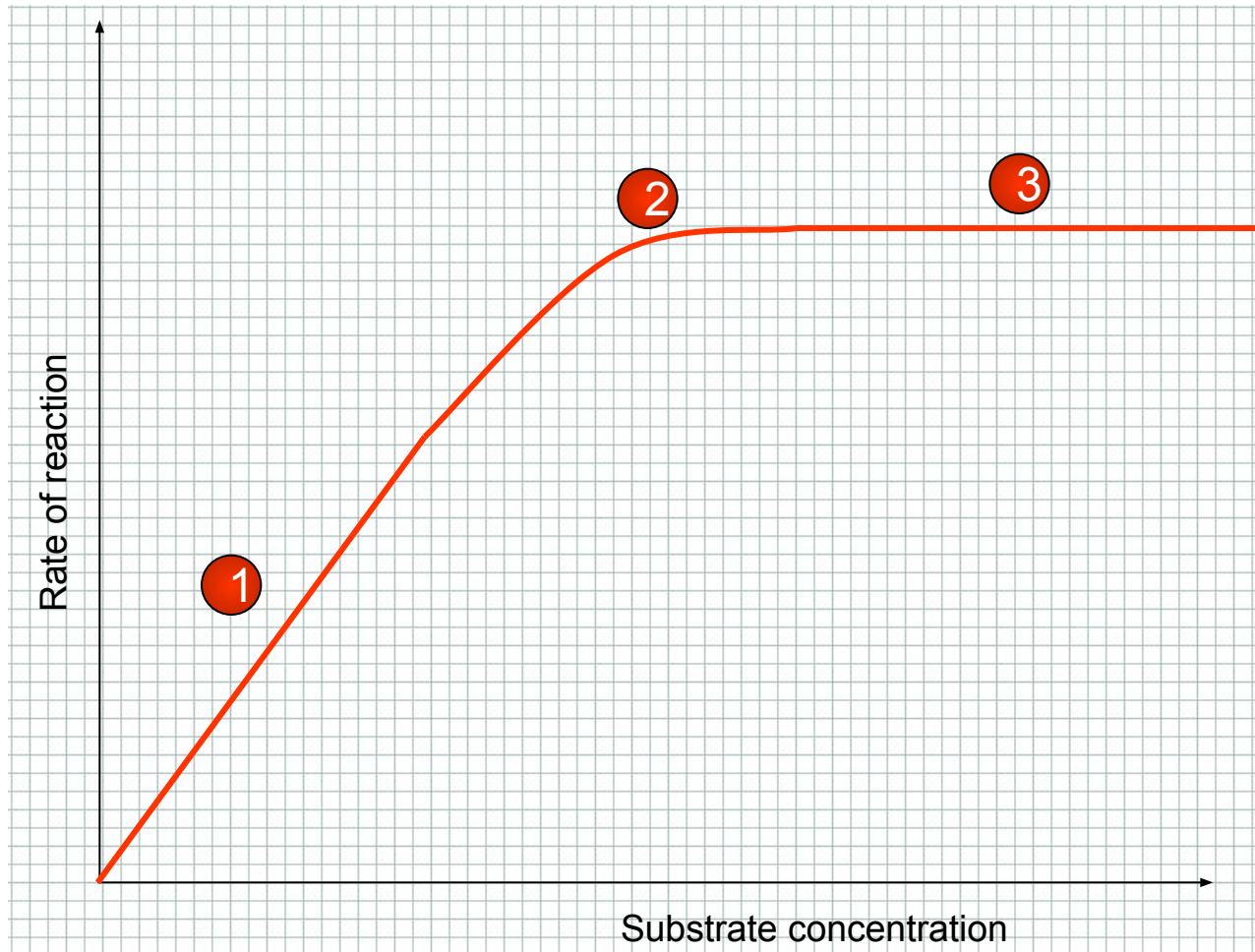
NORMAL ENZYME REACTION RATE



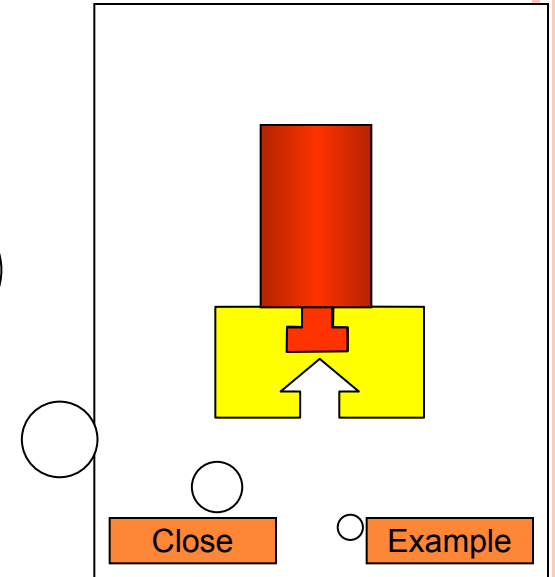
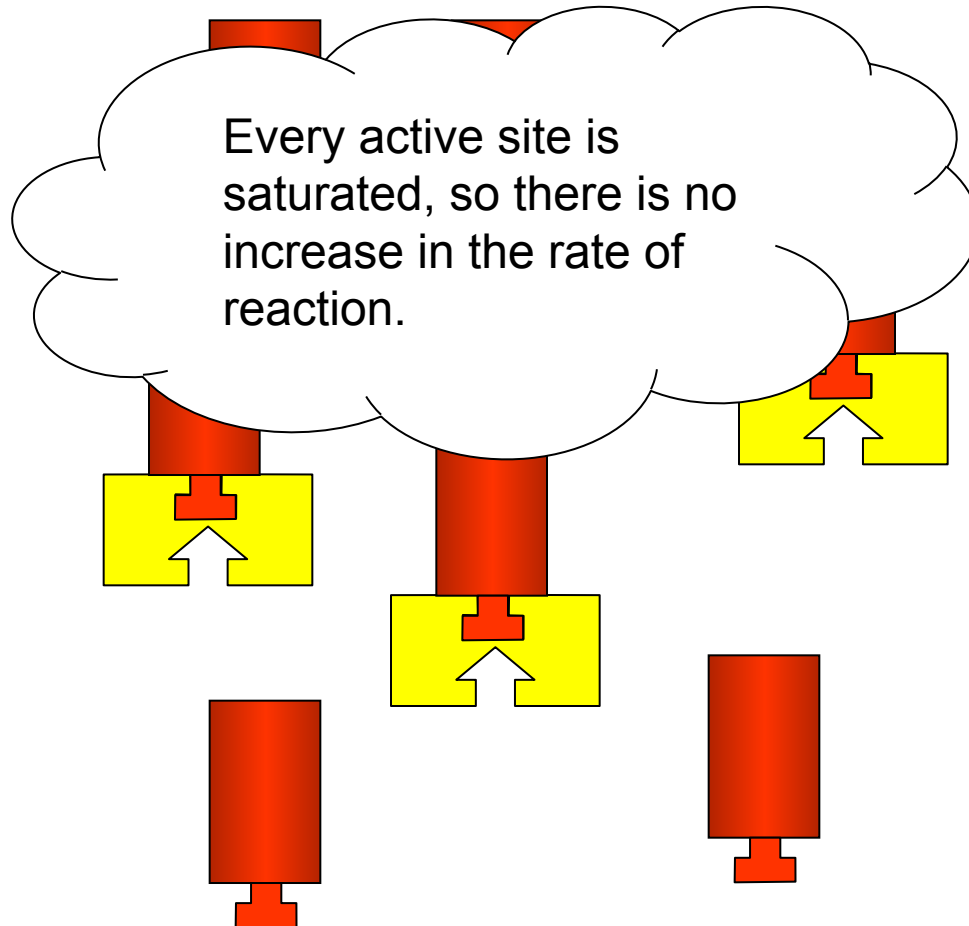
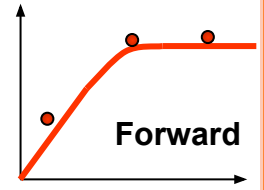
Every active site is saturated. The rate of the reaction is at its highest.



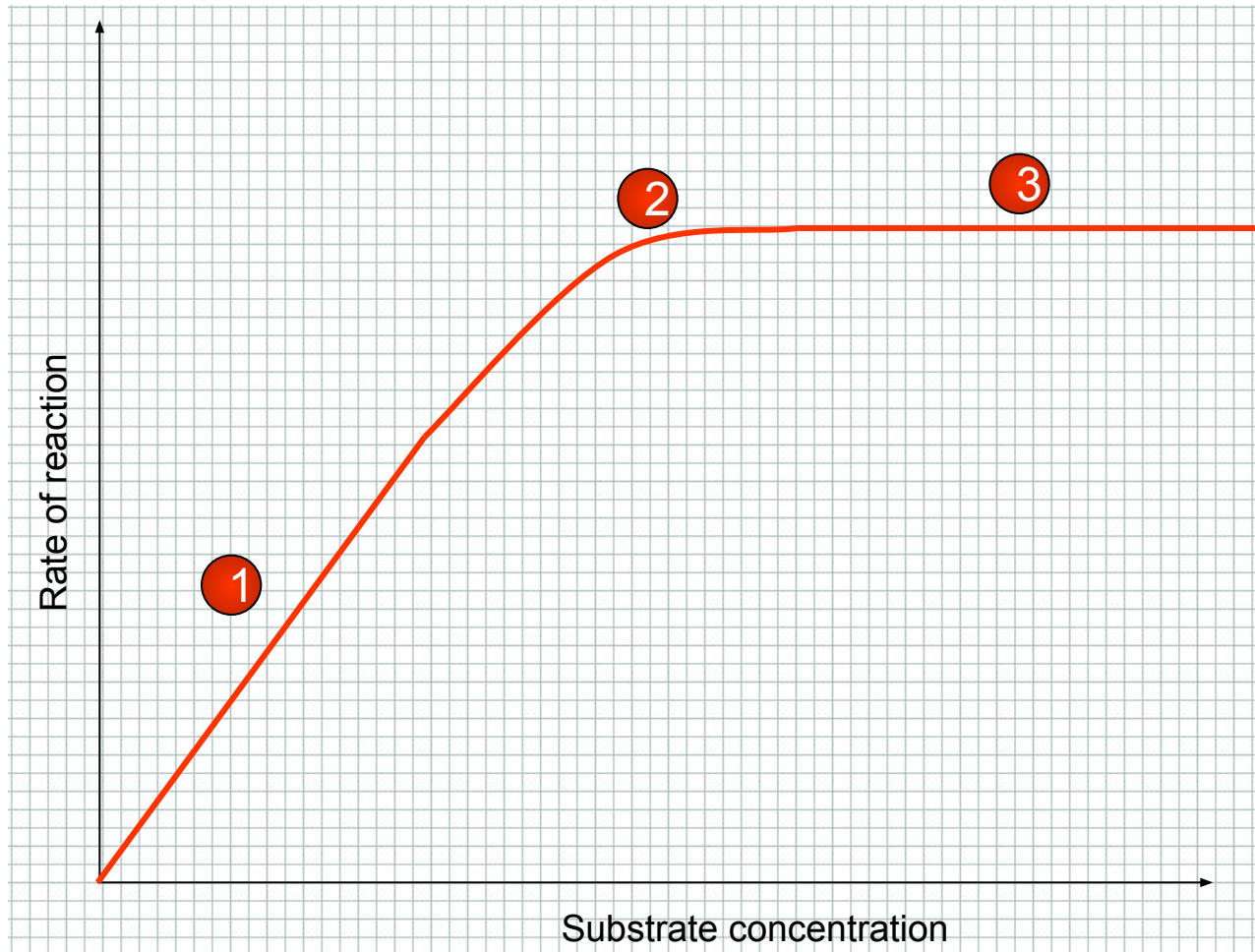
NORMAL ENZYME REACTION RATE



NORMAL ENZYME REACTION RATE



NORMAL ENZYME REACTION RATE

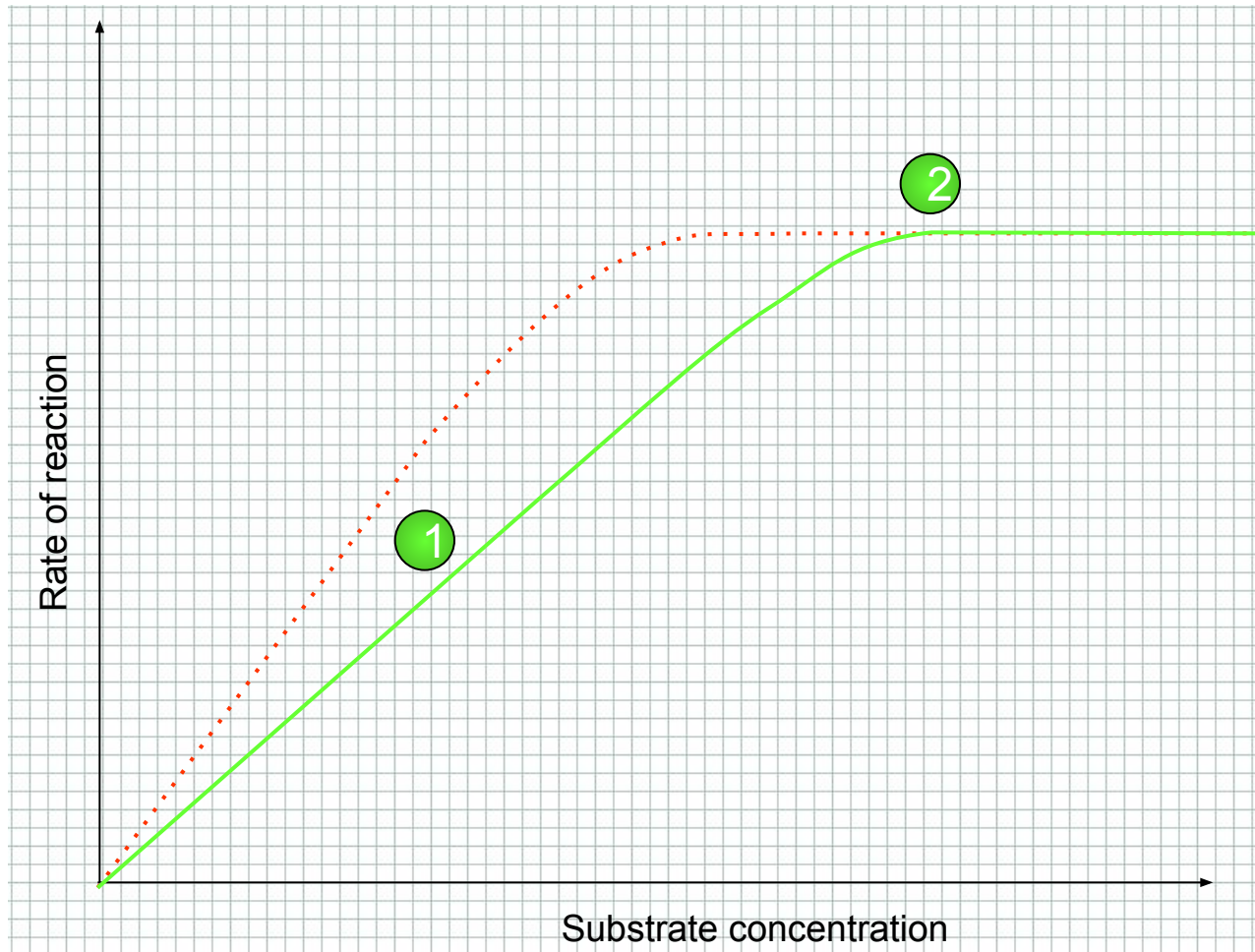


Revise

Competitive
Inhibitor



COMPETITIVE INHIBITOR REACTION RATE



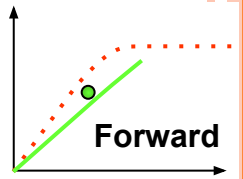
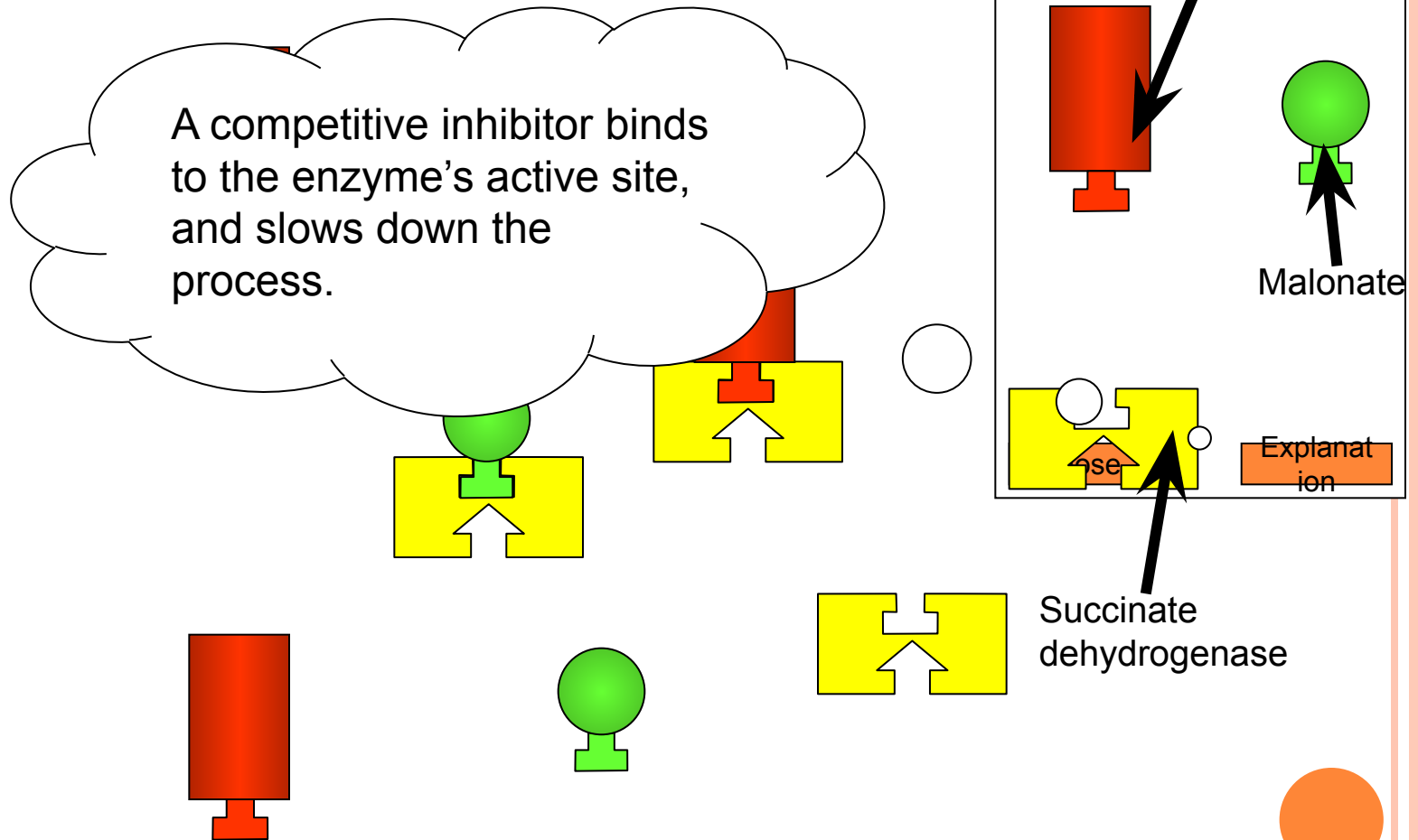
Revise

Non-competiti
ve
Inhibitor



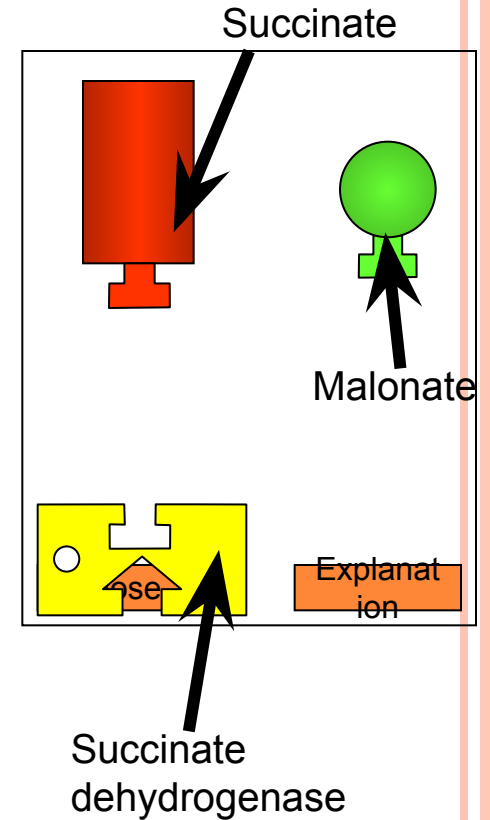
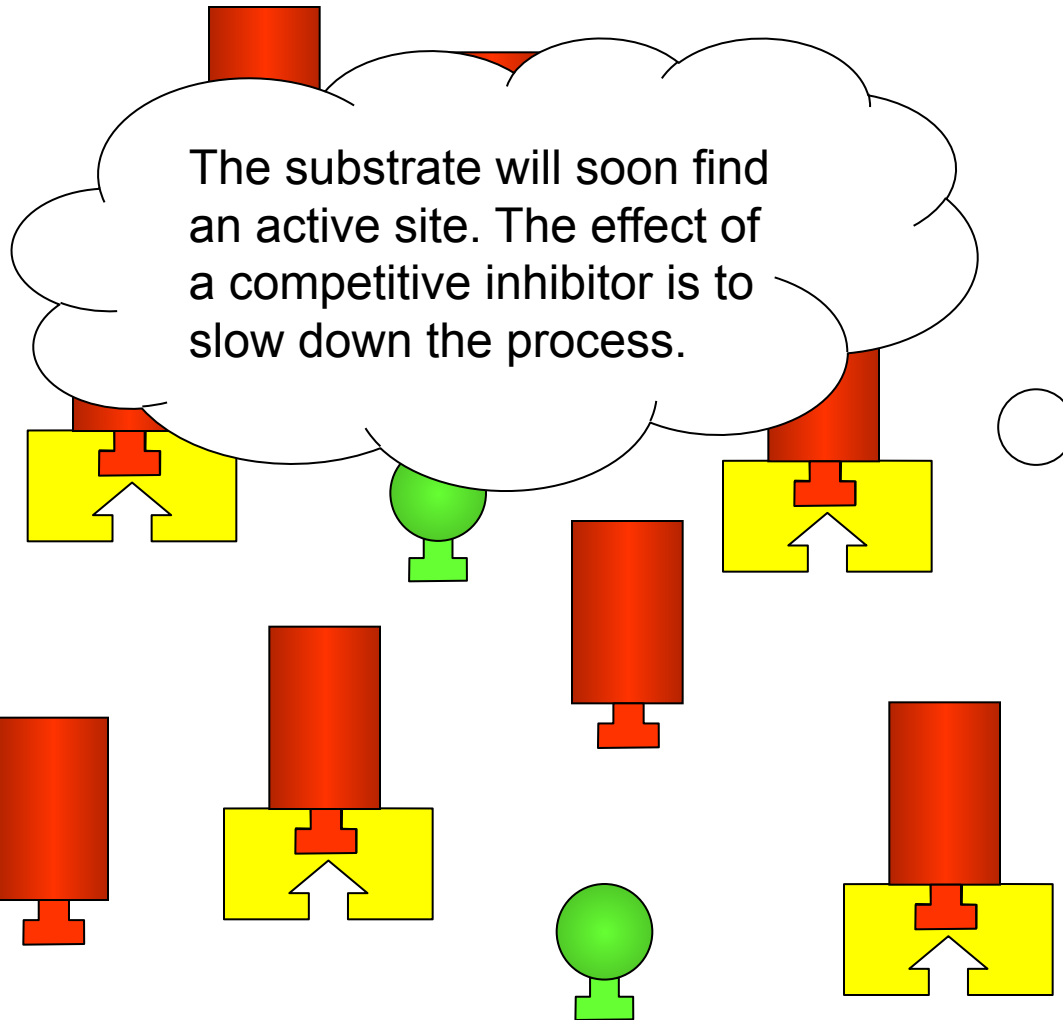
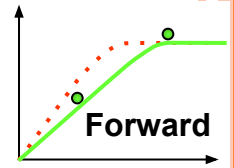
COMPETITIVE INHIBITOR EXAMPLE:

AN IMPORTANT ENZYME IN RESPIRATION IS SUCCINATE DEHYDROGENASE. ITS SUBSTRATE IS SUCCINATE, WHICH IS CONVERTED INTO FUMARATE

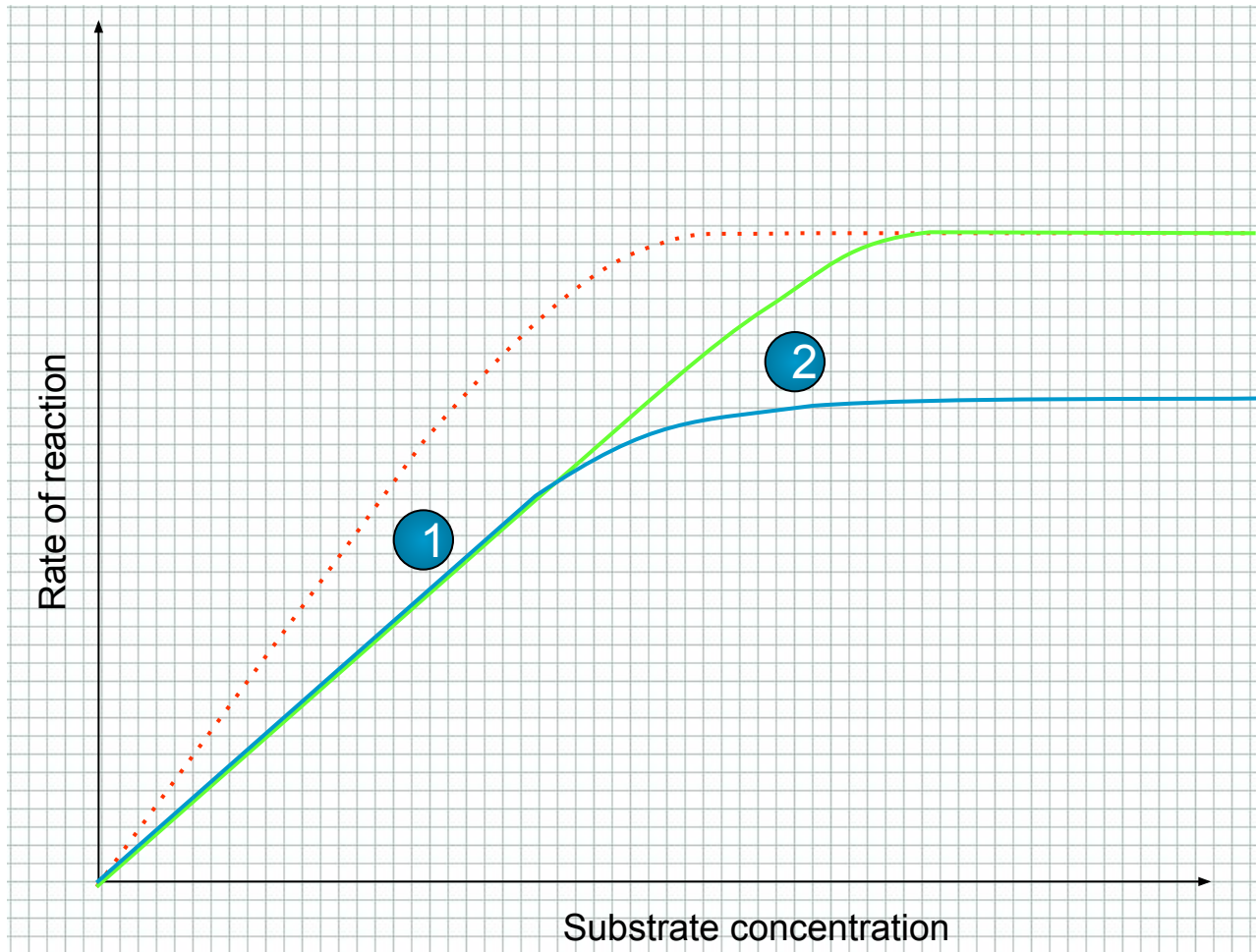


COMPETITIVE INHIBITOR EXAMPLE:

AN IMPORTANT ENZYME IN RESPIRATION IS SUCCINATE DEHYDROGENASE. ITS SUBSTRATE IS SUCCINATE, WHICH IS CONVERTED INTO FUMARATE



NON COMPETITIVE INHIBITOR

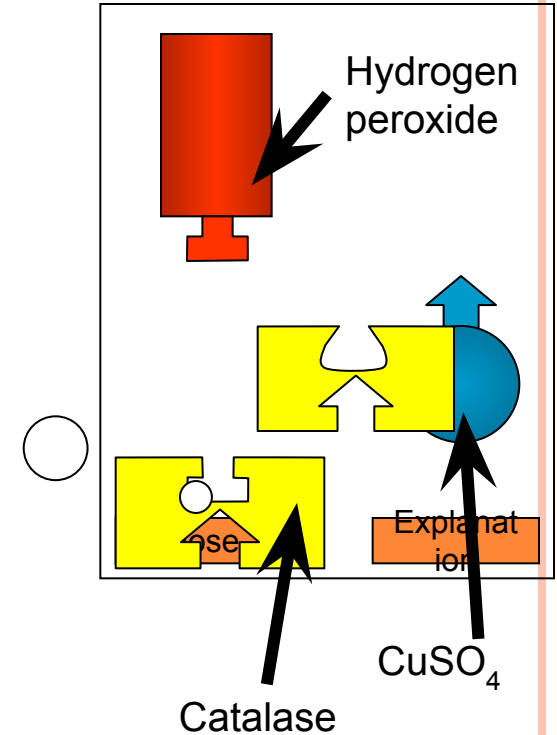
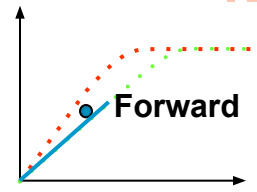
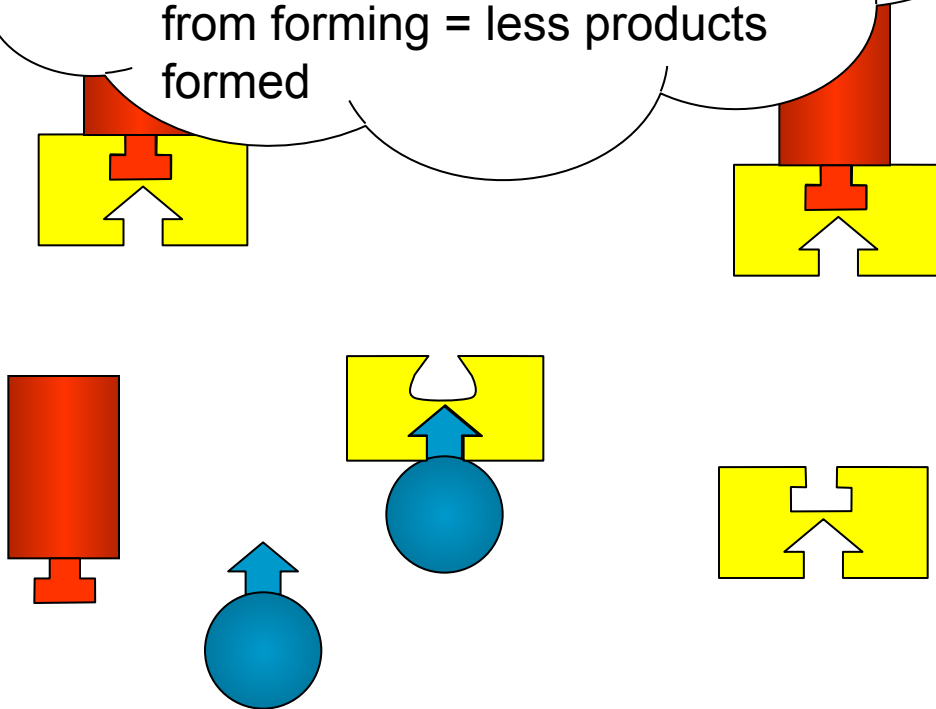


Re-Revis
e

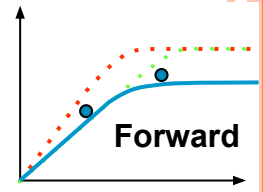


NON COMPETITIVE EXAMPLE: COPPER SULPHATE AND CATALASE

The shape of the active site changes because the non-competitive inhibitor has bound to an allosteric site; so preventing an enzyme-substrate complex from forming = less products formed



NON COMPETITIVE EXAMPLE: COPPER SULPHATE AND CATALASE



The reaction rate cannot reach the same point because the non-competitive inhibitors have changed the shape of some of the active sites.

