

Enzymes

Are a type of

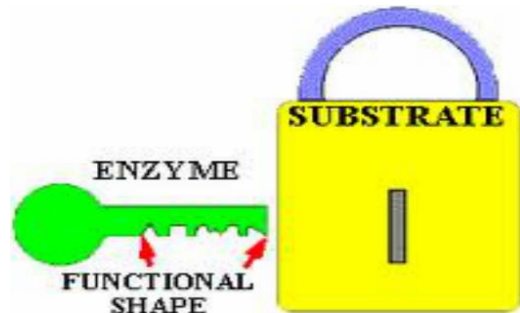
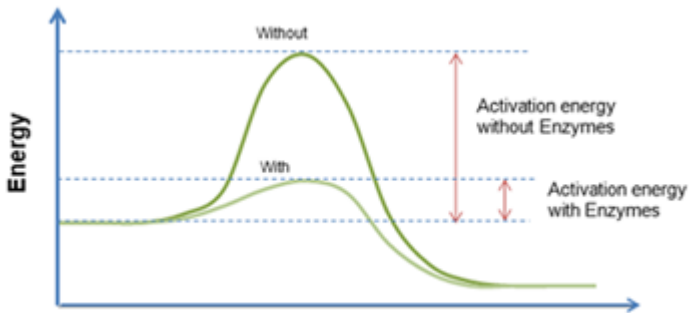
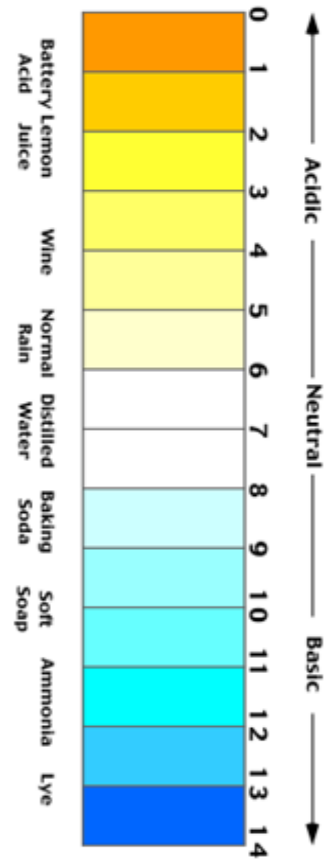
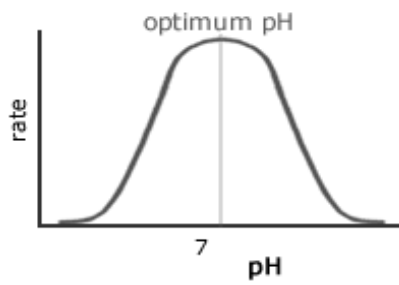
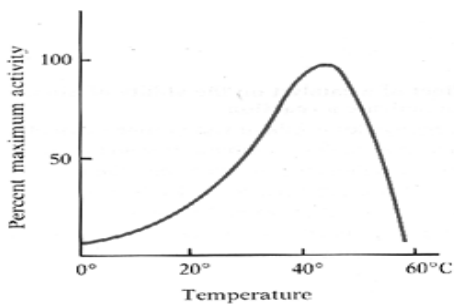
Catalyst:

How they work

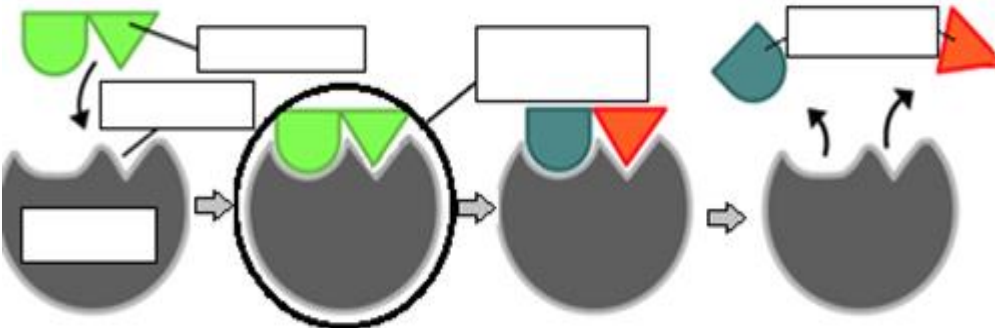
Specific & Reusable:

End in:

Can be denatured:



Enzyme Structure

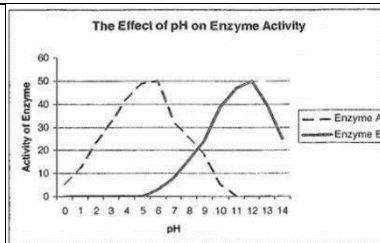
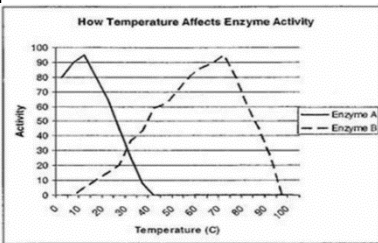
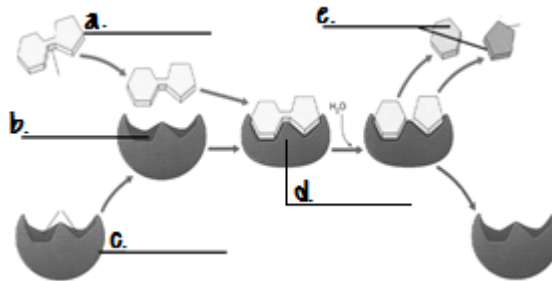


Enzyme Practice

- | | |
|--------------------------------------------------------|-----------------------|
| 1. What is a catalyst? | 2. What is an enzyme? |
| 3. What is an active site? | |
| 4. What is a substrate? | 5. What is a product? |
| 6. What is denaturing and what causes it to occur? | |
| 7. How can "Lock & Key" be used to describe an enzyme? | |

8. Label the Enzyme Model below:

- a.
- b.
- c.
- d.
- e.



Temp	Enzyme A	Enzyme B
0	80	0
5	90	0
10	95	5
15	80	10
20	65	15
25	45	20
30	25	37
35	8	43
40	0	59
45	0	62
50	0	71
55	0	80
60	0	86
65	0	90
70	0	95
75	0	80
80	0	60
85	0	45
90	0	25
95	0	0
100	0	0

Use the graph above and the table to the left to answer the following questions:

1. What is the optimal temp. for Enzyme A?
2. What is the optimal temp. for Enzyme B?
3. What temp. RANGE do the 2 enzymes overlap?
4. The human body has an avg. temp. of 37 C. Which enzyme would work best in the body?

pH	Enzyme A	Enzyme B
0	5	0
1	12	0
2	23	0
3	32	0
4	42	0
5	49	0
6	50	3
7	32	8
8	25	16
9	18	24
10	5	39
11	0	47
12	0	50
13	0	40
14	0	25

Use the graph above and the table to the left to answer the following questions:

1. What is the optimal pH for Enzyme A?
2. What is the optimal pH for Enzyme B?
3. What pH RANGE do the 2 enzymes overlap?
4. Which of the 2 enzymes would become denatured in lemon juice (pH 3)?