Name ……………………………………………………………………… Class: ………………………………… Date / /

Objectives: After the lesson the students should be able to:

1. **Students** recall that enzymes are proteins and are biological catalysts.
2. **Students** explain enzyme action as a substrate–enzyme complex reaction.
3. **Students** know that enzymes lower the activation energy for a reaction and that their function depends on their structure.
4. **Students** distinguish between competitive and non-competitive enzyme inhibition.

# Activity 1:

1. What are the main function of enzymes
2. What is the main structure of enzymes

# Activity 2:

1. Explain enzyme action.

# Activity 3:

Put T in front of the true statement and F in front of the false one:

1. Enzymes increase the activation energy for a reaction
2. Enzymes function depends on their structure.
3. Enzymes are found in all living organisms

# Activity 4:

 ***1-Use the following table to compare between enzymatic and non-enzymatic reactions:***

|  |  |  |
| --- | --- | --- |
| ***Property***  | 1. *Enzymatic reactions*
 | 1. *Non enzymatic reactions*
 |
| * + - 1. **Mostly in living organisms**
 |  |  |
| * + - 1. **Have narrow limits**
 |  |  |
| * + - 1. **Affected by temperature**
 |  |  |
| * + - 1. **Affected by PH**
 |  |  |
| * + - 1. **Can be repeated many times using same enzyme**
 |  |  |
| * + - 1. **Very specialized**
 |  |  |
| * + - 1. **Most of them can be reversed.**
 |  |  |