Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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# Enzymes: Gelatin Lab

**Purpose**

The purpose of this exercise is to evaluate the effect of enzymes.[[1]](#endnote-1)

**Procedure:**

 **Materials**

1. Gelatin dessert
2. Hot water
3. Small dishes
4. Small pieces of fresh pineapple
5. Canned pineapple

**Sequence of Steps**

1. Prepare a box of gelatin dessert and pour the mixture into small dishes.

2. Label half of the dishes “fresh” and half of the dishes “canned”.

3. Add one small piece of freshly cut pineapple to each of the “fresh” dishes.

4. Add one small piece of canned pineapple to each of the “canned” dishes.

![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()5. Place the gelatin dishes in the refrigerator overnight.

6. Observe the dishes and record your observations.

**![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()**

 **Observations**

1. Illustrate your observations after the gelatin has settled overnight.

 **Fresh Canned**

2. Describe, using complete sentences, your observations. Compare and contrast the gelatin with fresh pineapple and the gelatin with canned pineapple.

3. Explain your observations. Why do you think this happened?

4. Define enzyme:

5. Identify at least two ways enzymes can be beneficial to agricultural producers or processers.

6. Identify at least two ways enzymes can be detrimental (harmful) to agricultural producers or processers.

7. What factors can slow or speed up the activities of enzymes?

**Teacher Notes**

**\***The gelatin with the canned pineapple will be solidified. The gelatin with the raw pineapple will be liquid.

\* Enzymes in the canned pineapple were destroyed by heat and could not digest the gelatin. Enzymes in the raw pineapple were intact and digested the gelatin protein.[[2]](#endnote-2)

1. Mendes, Laura (2008). Enzymes, Lab. *St. Helena High School Agriculture Department*. [↑](#endnote-ref-1)
2. (2002). *Modern Biology*. Austin, TX: Holt, Rinehart, and Winston. [↑](#endnote-ref-2)