HAVE YOU EVER NOTICE THE WARNING ON A JELLO PACKAGE NOT TO USE FRESH OR FROZEN PINEAPPLE? TODAY WE ARE GOING TO INVESTIGATE WHY.

**Background:** An enzyme in pineapple breaks down collagen which is a protein. Pineapple belongs to a group of plants called Bromeliads. Meat tenderizer contains a bromeliad. Gelatin is made from collagen, a protein which comes from the joints of animals. As a dissolved gelatin mixture cools, the collagen forms into a matrix that traps the water; as a result, the mixture turns into the jiggling semi-solid mass.

**Hypothesis:**
Using the background information and your knowledge of enzymes, what do you think this lab will demonstrate?

**Materials:**
- Four test tubes
- Gelatin squares
- Fresh pineapple
- Frozen pineapple
- Canned pineapple

**Procedure:**
1. Start with 4 test tubes labeled A, B, C, D
2. Set up your test tubes as follows:
   - A: jello only
   - B: jello with dry fresh pineapple
   - C: jello with dry frozen pineapple
   - D: jello with dry canned pineapple
3. Observe after 30 minutes
4. Write a conclusion for this lab. Be sure to include:
   - Was your hypothesis correct?
   - What did you learn?

**Discussion Questions:**
1. Name 3 constants you used in your experiment.
2. What was your independent variable?
3. What was your dependent variable?
4. Why did dish 1 contain gelatin only?
5. What could account for the different results in the dishes?
6. How could the canning process change bromelin?
7. What could you do to the fresh pineapple that would allow the gelatin to become firm?