Pineapple Enzyme and Jello Mold Lab

Back Ground info on Jello and Pineapple

Form a hypothesis

- If …….. Then …….
- Or a Statement of fact
  - What will happen to the jello in the fresh pineapple juice vs. the canned pineapple juice?

Design an experiment

Get Materials

- 2 petri dishes
- Jello in the dishes
- Drops of juice

Qualitative Observation

- What did you observe in each dish?

Quantitative Data

- What type of data could you have collected here?

Condensation

- The process whereby a gas becomes a liquid or a solid.
- a chemical reaction between two organic compounds which produces (among other things) water, ammonia, or a simple alcohol.
- a chemical reaction between two molecules which links them together and expels a molecule of water. For example: the joining of two amino acids by a peptide bond during the formation of a polypeptide.

Dehydration Synthesis

noun, plural: dehydration syntheses

A chemical reaction that builds up molecules by losing water molecules.

Supplement

It is a type of condensation reaction in which monomers join together into polymers while losing water molecules. This process is carried out by losing (-OH) from one of the monomers and (H) from another monomer. The two unstable monomers join together, and the (-OH) and (H) combine forming water (H_2O).

For example, A-OH + B-H → AB + HOH

Bromelain (Enzyme)

- Bromelain extract is a mixture of protein-digesting
- Along with papain, bromelain is one of the most popular substances to use for meat tenderizing.
- Today, about 90% of meat tenderizer is used in consumer households. Bromelain is sold in a powdered form, which is combined with a marinade
- If the enzyme is allowed to work for too long, the meat may become too "mushy" for many consumers' preferences. Cooked or canned pineapple does not have a tenderizing effect, as the enzymes are heat labile.