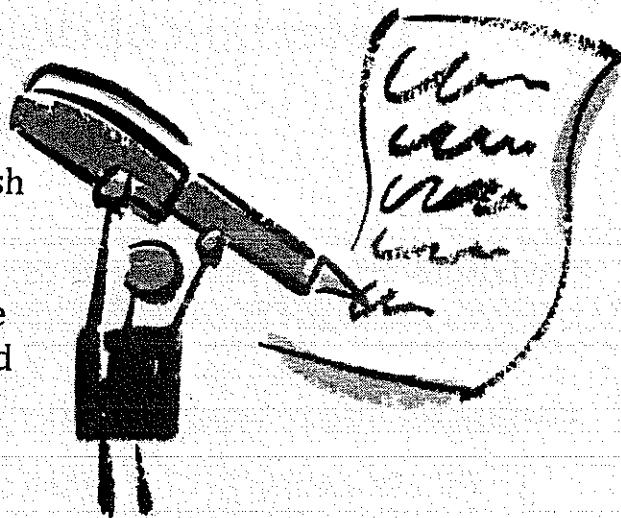


What's Your Food Made Of?

Lab Report Guidelines

Scientists must write papers and publish their findings in order to communicate to the world the work they've been doing. For this lab report, you will write about the "target food" that you selected at the beginning of lab.



Requirements:

Lab reports should be typed and contain all of the components listed below. Lab reports are written in PAST TENSE.

Introduction

- Why did you do this lab?
- What are the four macromolecules you tested for? (Details, not just the names).
- What was your "target food"?
- Etc.

Hypothesis

- An "if... then... because..." statement.
- Hypothesis example: **If** applesauce only contains sugar, **then** the only positive test will be the Benedict's test for sugars, **because** applesauce doesn't contain proteins, starch, or lipids.

Materials/Methods

- What materials did you use?
- What procedures did you follow in the lab (use the handout to help you).

Results/Discussion

- What macromolecules were in your "target food"?
- Was your hypothesis correct? Why or why not?
- Etc.

Detection of Organic Macromolecules

Technique Sheet

Be sure to set up a control for each experiment!

Testing for Sugar using Benedict's Solution

1. Fill a test tube 1/3 full of the sample to be tested.
2. Add 3-5 drops of Benedict's solution.
3. Properly shake the test tube by gently tapping the bottom of the tube against the heel of your hand.
4. Place the sample in a hot water bath for up to 10 minutes.
5. If the sample contains sugar, the solution will turn yellow, orange, or red.

Testing for Starch using Iodine

1. Fill a test tube 1/3 full of the sample to be tested.
2. Add 3-5 drops of iodine to the solution.
3. If the sample contains iodine, the solution will turn an inky black color.

Testing for Proteins using the Biuret Reagent.

1. Fill a test tube 1/3 full of the sample to be tested.
2. Add about 2mL (40 drops - but don't count!) of the Biuret reagent to the test tube.
3. If the sample contains protein, the solution will turn purple or pink.

Testing for Lipids using the Sudan III Solution.

1. Fill a test tube 1/3 full of the sample to be tested.
2. Add 3-5 drops of Sudan III solution.
3. Properly shake the test tube by gently tapping the bottom of the tube against the heel of your hand.
4. The Sudan III solution dyes lipids red.