Laboratory Report Template

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Title

Project 1.2.4 Nutrient Investigation

Problem

The nutrient content of peanut butter

Hypothesis

I predict there will be fats, carbs and proteins

Materials

- Various food materials
- Biuret reagent
- Benedict's solution
- Iodine solution
- 2,6 Dichloroindophenol
- Brown paper bag
- Test tubes
- Test tube rack
- Distilled water
- Test tube tongs
- Plastic pipettes
- Marking pencil
- Computer

Procedures

1. Brown Paper Bag Test

1. Get a paper bag.
2. Place a drop of each sample on the correctly labeled space.
3. Observe and record.

2.Iodine

1. Add a pea size amount of peanut butter to the correctly labeled test tube.
2. Add one drop of iodine solution to the test tube and observe color changes in the test tube.
3. Record your observations in your Laboratory Notebook.

3.Benedict's Solution

1. Using a marking pencil label six test tubes with the following information.

2. Name of sample – one test tube

3. Name of indicator – Benedict's

4. Initials of lab partners

5. Add 3ml of sample to the correctly labeled test tube.

6. Add 5ml of Benedict's solution to the test tube.

7. Place the test tube in the water bath provided by the teacher. Make sure the water surrounds the Sample in the test tubes.

9. Incubate the test tube in the water bath for three minutes.

10. Observe changes as they occur and record in your Laboratory Notebook.

11. Using the test tube tongs remove the test tube from the water bath and return to your workspace.

12. Record color changes and any other observations in your Laboratory Notebook.

4.Biuret Reagent

1. Using a marking pencil label a test tube with the following information.
2. Name of sample – one test tube
3. Name of indicator – Biuret
4. Initials of lab partners
5. Add 3ml of the sample to the correctly labeled test tube.
6. Add 3ml of distilled water to the test tube.
7. Add 5 drops of biuret reagent to the test tube and observe any changes.
8. Record all observations in your Laboratory Notebook.

5.2, 6 Dichloroindophenol

1. Using a marking pencil label the test tube with the following information.
2. Name of sample – one test tube
9. Name of indicator – 2,6 D
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11. Initials of lab partners

12. Add 1ml of 2,6 Dichloroindophenol to labeled test tube.

13. Using a pipette, collect 1ml of one sample solution.

14. Add one drop of solution at a time to the properly labeled test tube. Gently swirl test tube between

drops. Stop adding drops of the sample solution when indicator becomes colorless or when you have added 1ml of sample.

9. Record observations and number of drops in your Laboratory Notebook.

Data Collection

Test	Results
Brown Bag	Has greasy stains around peanut butter
Iodine	Turned much darker with the solution
Benedicts	Turned a slight green color
Biuret	Turned light purple
2.6 Dichloroindophenol	Turned colorless and is only brown because peanut butter is naturally brown

Analysis of Results

When the peanut butter was put in the specific solutions it had a reaction to all of them. It was greasy on the brown paper bag, it turned dark purple or black with the iodine, turned a slight purple color with the biuret, it was colorless with the 2.6 solution and was a light green with the benedicts solution.

Conclusions

The peanut butter had reacted to all the solutions which means it had all the nutrients it was supposed to give off. It was very fatty because of the greasiness it left on the paper towel. It had vitamins because it reacted with the 2.6 dichloroindophenol and was colorless besides a brownish color because of the peanut butter. It had proteins in it because it turned a light purple when reacting to the biuret solution. It had both kinda of carbs in it, simple and complex because it reacted both to the iodine and the benedicts solution