Analyzing Food

Summary

Students will perform several tests on different foods to determine what types of macromolecules they contain.

Time Frame

1 class periods of 70 minutes each

Group Size

Pairs

Materials

- student sheet
  (attached)
  3 test tubes
  test tube rack
  mortar and pestle (optional)
  small beakers
  glass marking pen
  hot water
  foods
  biuret solution
  Benedicts solution
  IKI solution
  paper towel or bags
  dropper bottles and pipets

Instructional Procedures

Gather the foods and supplies needed.
"Hook" students by asking them what they had for breakfast or lunch and what macromolecules they think they ate. Read the introduction with them and discuss what makes a food "bad". There really are no "bad" foods, only bad eating habits that include limited diets, high in a single type of macromolecule.
Discuss safety issues and procedures.
Ask students to fill in predictions on their data table for each of the foods available.
Allow time to work, students do not need to finish every food available.
Summarize results on the board, overhead or projector.
After discussion, allow students time to finish the analysis questions and write a conclusion.

Assessment Plan

Scoring Guide:

1. Students describe function of each macromolecule……..2
2. Students perform lab activity safely and efficiently……4
3. Students record data and share with class……4
4. Analysis questions are answered correctly…… 4
5. Conclusion is thoughtful and complete……2

Answers to analysis questions:

Nucleic acids are not necessarily found in food, only in foods made of cells.
Answers vary
Cereals, breads, crackers, cookies.
Meats, cheeses, beans
Snack foods, meats,
All macromolecules are needed by the body.
None are bad for you, except in overabundance.
all should be included in a good diet.

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

Utah LessonPlans