Analyzing Food

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

Main Core Tie
Science - Biology
Standard 2 Objective 1

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:
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.

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