

# 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](#)