

Macromolecules Identification

Summary

Students will be able to identify the 4 major macromolecules in our bodies and the major chemical elements that compose them. They should also be able to draw the general shape of these molecules.

Time Frame

1 class periods of 60 minutes each

Group Size

Small Groups

Materials

- books
- [student sheet](#)
(attached)

Student Prior Knowledge

Students understand chemical elements but do not connect that they make up the molecules in our bodies.

Instructional Procedures

Ask for 4 volunteers.

Take them in the hall and instruct them they are to model the letters for carbon, hydrogen, nitrogen, oxygen, phosphorus and sulfur (CHNOPS) with their bodies.

Have the students do this in front of the class.

Allow the class to try and figure out what letters and then elements the students have formed.

Explain to students that in teams of 6 they must build a model of each macromolecule.

The model should show a basic understanding of the shape of the molecules

It should also show how the chemical elements, CHNOPS play a role in the molecules.

This model should include everyone in their group.

They must use their bodies.

Students should draw a blueprint of their model on paper and label it.

Students should build their models in front of the class, and class members should see if they can identify the molecule

The team whose molecules are most easily identified is the winner.

Have students take out a piece of paper and draw the basic structure of each macromolecule.

Below each structure students should identify which chemical elements compose the molecule.

Assessment Plan

Sample Scoring Guide:

All members of group participate-5 points
Macromolecule is accurate and easily identifiable.....10 points

Worksheet is filled out correctly.....20 points

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)