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.

Main Core Tie
Science - Biology
Standard 2 Objective 1

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
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