

Name _____

Date _____

Period _____

Biology Macromolecule Online Lab

Go to <http://faculty.kirkwood.edu/apeterk/learningobjects/biologylabs.htm>

Online Macromolecule lab

Directions: For the link below-Read the directions on the left side of the page. Have a piece on notebook paper out and begin testing for carbohydrates first by clicking on the tab that says "Carbohydrates" then click the drop down tab to test for sugars.

Carbohydrates Test for Sugars

What are the building blocks for Carbohydrates _____

Draw a picture of the building block below

Write down the initial color of the substances in the test tubes here _____.

Now add the Benedicts Reagent first then click on "Hot Water Bath". Note the color changes below next to each substance.

Water _____

Glucose _____

Onion Juice _____

Potato Juice _____

Diet Sprite _____

Carbohydrates Test for Starches

Do the same but now test for starches from the "choose your test" drop down menu.

Note the initial color in the test tubes here _____

Now add Iodine and note the color changes for each substance

Water _____

Glucose _____

Onion Juice _____

Potato Juice _____

Diet Sprite _____

Proteins Test

What are the building blocks of Proteins _____

Draw a picture of the building block below

Now click on proteins tab. Note the initial color of substances in the test tubes here _____

Add the Biuret Reagent. Now note the color change for each substance below.

Water _____

Egg White _____

Chicken Soup _____

Lipids Test

What are the building blocks of Lipids _____

Draw a picture of the building blocks below

Now click on Lipids. Note initial color of substances in the test tubes here _____

Add the Sudan III. Now note the color change for each substance below.

Water _____

Margarine_____

Egg White_____

Coconut_____

Cream_____

Everyday Foods

Now choose your sample from the drop down menu. You will need to test each sample for carbohydrates, Proteins, and lipids. There are four different food samples to test: Gelatin, Apple juice, Ritz cracker, & Skim Milk. I would suggest starting with Gelatin:

Gelatin: After testing Gelatin, what macromolecules are present? How do you know? Write the answer below.

Apple Juice: After testing juice, what macromolecules are present? How do you know? Write the answer below.

Ritz Cracker: After testing the cracker, what macromolecules are present? How do you know? Write the answer below.

Skim Milk: After testing Milk, what macromolecules are present? How do you know? Write the answer below.

There is no test in this activity for Nucleic acids, but answer these questions below about them

What are the building blocks of Nucleic acids?_____

Draw a picture of the building block below:

Try this game when you are done:

Go to:

<http://www.superteachertools.com/jeopardy/usergames/Sep201036/game1284000930.php>

Macromolecule Jeopardy game