

Name: _____ Period: _____

IDENTIFYING MACROMOLECULES IN FOODS LAB - DATA

PART A: PRE-LAB QUESTIONS

Answer the following using COMPLETE sentences!

1. What is the purpose of using distilled water as one of your test substances?
2. What macromolecule will you NOT be testing in today's lab? Why do you think that it is not something we would test in food?
3. What indicates the presence of the following (how will you know that a food substance contains each of the following macromolecules):
 - a. Lipids
 - b. Simple Carbohydrates (only monomers)
 - c. Proteins
 - d. Complex Carbohydrates (only polymers)

Hypothesize what the results for each of the following food solutions. Explain WHY you and your lab group think this. Example: We think cooking oil will test positive only for lipids because... (foods may test positive for more than one!)

| Food Substance | We think it will be positive for... | Because... |
|----------------------|-------------------------------------|------------|
| Distilled water | | |
| White sugar solution | | |
| Chicken broth | | |
| Potato Solution | | |
| Whole milk | | |
| Apple juice | | |
| Honey | | |
| Yogurt | | |

PART B:

DATA: PUT A "+" FOR POSITIVE RESULTS; PUT A "-" FOR NEGATIVE RESULTS!

| | Distilled Water | White Sugar | Oil | Potato Solution | Egg Whites | Apple Juice | Whole Milk | Yogurt | Chicken Broth | Honey |
|---------------------------|-----------------|-------------|-----|-----------------|------------|-------------|------------|--------|---------------|-------|
| Lipids (Brown Paper) | | | | | | | | | | |
| Simple Carbs (Benedict's) | | | | | | | | | | |
| Complex Carbs (Iodine) | | | | | | | | | | |
| Proteins (Biuret) | | | | | | | | | | |

POST-LAB QUESTIONS: (ANSWER USING COMPLETE SENTENCES!)

1. What conclusion should you make if you found a positive test for any macromolecules in a cup containing only distilled water?
2. Review your hypothesis table. Are there any substances that you hypothesized incorrectly? How were you incorrect? If all of your hypotheses correct, describe at least one thing that you did learn from this experiment.
3. Hypothesize which tests would be positive and which would be negative if you were to test the following:

| | Simple Carbs | Complex Carbs | Lipids | Proteins | Explain WHY! |
|-------------------|--------------|---------------|--------|----------|--------------|
| Bacon...Yummy | | | | | |
| Gummy Bears | | | | | |
| Whole Wheat Bread | | | | | |
| Peanut Butter | | | | | |

| LAB 3 SCORES | | | | |
|--------------|---|---|---|---|
| PART A | 1 | 2 | 3 | 4 |
| PART B | 1 | 2 | 3 | 4 |

