Food Journal Diet Analysis

Background:
Maintaining a balanced diet is an important part of life, especially for young adults. Average consumption of calories varies by age, activity level, and even country of residence.

Having learned about carbohydrates, proteins, and lipids, you will now examine which macromolecules make up the basis of your diet.

Assessment:
P*lease see your teacher's website for explanation of proficiency level for each standard*

Science Standard 1: Planning & Evaluation	Exceeds Proficiency	Meets Proficiency	Nearly Proficient	Not Proficient
Science STandard 2: Data Analysis & Technology	Exceeds Proficiency	Meets Proficiency	Nearly Proficient	Not Proficient

Directions:
1. Record everything you eat for three consecutive days. **This includes snacks and beverages. Record everything.** A prepared Google Docs spreadsheet template can be found [here](#) to record the information.

2. For each item consumed, record the amount of carbohydrates, lipids, and proteins (in grams). (We will not track saturated vs unsaturated fat). **The spreadsheet will automatically convert the amount of grams into calories.**
    a. Protein & Carbohydrates each provide 4 calories per gram and Lipids 9 calories per gram.

3. The spreadsheet will automatically calculate the total grams for each macromolecule, calories**,** and percent of diet for each day. It will also calculate these same amounts for the total three day period (found on the "Diet Journal Totals" page).

4. Some foods may not have nutritional information, for example fruit and vegetables. You can use the following resources to calculate the nutritional information (these actually work very well for our purposes).
    a. [Recipe Calculator](#): Put in your ingredients and it calculates nutritional

information

    b. [Nutritional Facts](): Good search options as well as information for fast foods

5. Using the data collected, create a graph to show the % of your diet calories coming from carbohydrates, proteins, & lipids **for all three days**. Upload the graph below:

6. Add your **total calories for each macromolecule type (carbohydrate, protein, & lipid) for all three days** to this [form]().

7. Answer the following questions below the solid line to analyze and compare your diet.

8. **Turn In**
   1. Rename your personal assignment in the following way: Class_Last Name_First Name_Assignment Name
   2. Example: 3B_Rott_Dan_Assignment Name
   3. Move or put your personal copy of the Lab into your "Biology Turn in Folder" Google Doc Collection/Folder.
   4. Turn in your assignment to Mr. Rott by using the following turn in [link]()
   5. Turn in your assignment to Ms. Perry by using the following turn in link
   6. Turn in your assignment to Mrs. Childers by using the following turn in link
   7. Turn in your assignment to Mr. White by using the following turn in link

Useful Sources:
- [The Average Calorie Intake for Children]()
- [Balance Carbs, Lipids & Proteins for Better Health]()
- [The Merck Manual: Carbohydrates, proteins, and fats]()

Analysis Questions:

1. Were any of the findings during this exercise surprising? If so, explain why.

2. Compare and contrast your daily calorie intake with that of an average high school student **and two of the following**:
   a. Individual from a Western European Country
   b. Individual from Central or South America
   c. Individual from India

d. Individual from Eastern European Country
e. Individual from Japan
f. Individual from Middle East
g. Individual from China
h. Individual from the Pacific Islands

3. What diet ratios (protein, fat, carbs) are ideal for your level of physical activity?

4. What lifestyle factors affect the ratio of proteins, fat, and carbs found in your journal? (For example, were you traveling, highly active, or ill?)

5. Compare your graph to that of the all class data found [here]. State the proportions you observed, and predict and explain why you see similarities or differences.

6. Select one of the following TED Talk videos and answer their questions:
    a. Mark Bittman: *What's Wrong with What We Eat*
        i. Questions*:*
            1. What does Bittman suggest is the problem with food?
            2. What evidence does Bittman use to support his conclusion with the problems with food we eat?
            3. How does Bittman's discussion and examples compare with your diet and experience of food?
            4. Provide an explanation or suggestion for a solution to address the problems Bittman suggests (Application of Science, provide sources for exceeds).
    b. Jamie Oliver: *Teach Every Child to Eat*
        i. Questions:
            1. What does Jamie Oliver suggest is the problem with food?
            2. What evidence does Jamie use to support his conclusion with the problems with food?
            3. How does Jamie's discussion and examples compare with your diet and experience of food?
            4. Provide an explanation or suggestion for a solution to address the problems Jamie suggests (Application of Science, provide sources for exceeds).