

Diet Analysis Assignment

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:

	Not Proficient	Proficient	Exceeds Proficiency
Data Collection & Analysis:	Missing some elements of proficient - please correct and turn back in.	Includes most of the following Data Analysis and Conclusion: <ol style="list-style-type: none"> 1. Type of graph and/or table is appropriate for data 2. Labeling of graph or table is correct (axis, units, and title) 3. Conclusion addresses original question or hypothesis using data 	Includes most of the following Data Analysis and Conclusion: <ol style="list-style-type: none"> 1. Calculations are used when appropriate (mode, average, error) 2. Conclusion discusses limitations and errors (individual and procedural) and suggestions are made to improve and correct lab 3. Applies data and conclusions to other class content or real life examples by using additional research
Application of Science:	Missing some elements of proficient - please correct and turn back in	Includes most of the following: <ol style="list-style-type: none"> 1. Connects analysis questions to other related topics 	Includes most of the following: <ol style="list-style-type: none"> 1. Cites specific examples of other areas in science or current events that this topic relates to. 2. Use specific examples of how collaboration helped to collect data or form conclusions.
Communication:	Missing elements listed in proficient.	Includes most of the following: <ol style="list-style-type: none"> 1. Answers fully address question 2. Limited grammatical errors and conventions 3. Uses scientific language (avoid the use of pronouns like I, you, me, we, our, etc.) and is concise but detailed 	Includes most of the following: <ol style="list-style-type: none"> 1. Discussion fully connects findings or implications to class concepts or real world events. 2. Appropriate scientific vocabulary used extensively and accurately

Directions:

1. Record everything you eat for three consecutive days. This includes snacks and beverages. Record everything. You will create a spreadsheet in your notebook, or you can download one from my website, www.coachfraser.weebly.com.
2. For each item consumed, record the amount of carbohydrates, lipids, and proteins (in grams). (We will not track saturated vs. unsaturated fat). You can use the following values to calculate the total calories from each molecule:
Protein & Carbohydrates each provide 4 calories per gram and Lipids 9 calories per gram.
3. 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).

Recipe Calculator: Put in your ingredients and it calculates nutritional information

Nutritional Facts: Good search options as well as information for fast foods

6. Using the data collected, create a graph to show the % of your diet calories coming from carbohydrates, proteins, & lipids for all three days.
7. Answer the following questions below the solid line to analyze and compare your diet.

Useful Sources:

1. http://www.ehow.com/facts_7269098_average-caloric-intake-children.html
 2. <http://thecookingcardiologist.com/cardiologist-blog/balance-carbs-protein-and-fat-better-health>
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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:
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 another student. 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:

Mark Bittman: [What's Wrong with What We Eat](#)

(http://www.ted.com/talks/mark_bittman_on_what_s_wrong_with_what_we_eat.html)

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).

Jamie Oliver: [Teach Every Child to Eat](#)

(http://www.ted.com/talks/jamie_oliver.html)

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).