

AGENDA for 12/03/13

- AGENDA:

1. Go over 2.1 Quiz
2. 2.2.2: Food Labels
 - Analyzing Food Labels
 - Assessing Nutritional Daily Requirements

- OBJECTIVES:

1. Analyze food labels to determine the nutritional content
2. Assess how Anna was meeting her nutritional requirements

- HOMEWORK:

- Due **Thurs, 12-05**

1. 2.2.2. Activity Packet

Essential Questions for 2.2.2

4. How can food labels be used to evaluate dietary choices?
5. What role do basic nutrients play in the function of the human body?
6. What are basic recommendations for a diabetic diet?

2.2 Key Terms

Adenosine tri-phosphate (ATP)	A compound composed of adenosine and three phosphate groups that supplies energy for many biochemical cellular processes by undergoing enzymatic hydrolysis.
Amino Acid	An organic monomer which serves as a building block of proteins.
Calorie	The amount of heat energy required to raise the temperature of 1 g of water by 1°C; also the amount of heat energy that 1 g of water releases when it cools by 1°C. The Calorie (with a capital C), usually used to indicate the energy content of food, is a kilocalorie.
Carbohydrate	A sugar in the form of a monosaccharide, disaccharide or polysaccharide.
Chemical Bond	An attractive force that holds together the atoms, ions, or groups of atoms in a molecule or compound.
Chemical Indicator	A substance (as a dye) used to show visually usually by its capacity for color change, the condition of a solution with respect to the presence of free acid or alkali or some other substance.
Chemical Reaction	Chemical transformation or change; the interaction of chemical entities.
Compound	A substance consisting of two or more elements in a fixed ratio.
Covalent bond	A type of strong chemical bond in which two atoms share one or more pairs of valence electrons.
Dehydration Synthesis	A chemical reaction in which two molecules are bonded together with the removal of a water molecule.
Disaccharide	A double sugar molecule made of two monosaccharides bonded together through dehydration synthesis.
Element	The smallest particle of a substance that retains all the properties of the substance and is composed of one or more atoms.
Glucose	A monomer of carbohydrate, simple sugar.
Homeostasis	The maintenance of relatively stable internal physiological conditions (as body temperature or the pH of blood) in higher animals under fluctuating environmental conditions.
Hydrolysis	A chemical process that splits a molecule by adding water.
Ionic bond	A chemical bond resulting from the attraction between oppositely charged ions.
Lipid	One of a family of compounds including fats, phospholipids, and steroids that is insoluble in water.
Macromolecule	A type of giant molecule formed by joining smaller molecules which includes proteins, polysaccharides, lipids, and nucleic acids.
Molecule	Two or more atoms held together by covalent bonds.
Monomer	The subunit that serves as the building block of a polymer.
Monosaccharide	A single sugar molecule such as glucose or fructose, the simplest type of sugar.
Nutrient	A substance that is needed by the body to maintain life and health.
Polymer	A large molecule consisting of many repeating chemical units or molecules linked together.
Polysaccharide	A polymer of thousands of simple sugars formed by dehydration synthesis.
Protein	A three dimensional polymer made of monomers of amino acids.

Activity Objectives – 2.2.2.

1. Analyze food labels to determine the nutritional content
2. Assess how Anna was meeting her nutritional requirements

2.2.2. Conclusion Question

1. Why do you think nutritional information is listed per serving and not per package? What are the pros and cons to this method?
2. Based on your analysis of the food labels from the four foods, would you change your opinion of which foods you considered to be healthy (Step 4)? Explain your answer.
3. Describe at least one reason for limiting each of the following in a well-balanced diet - saturated fat, cholesterol, and sodium.
4. Choose one food label and calculate the grams of fat consumed if you ate the entire package. What percentage of your daily value of fat would be used at this meal? Show your work.
5. Given what you have learned about the function of key vitamins and minerals, explain why it is most often recommended for adults to consume a multi-vitamin once a day along with their regular meals.
6. Explain why DRIs are now the preferred value for nutritional intake but are not shown on food labels.
7. Describe at least two changes Anna would have to make to her diet to increase her overall health and fitness.
8. Did Anna appear to be following a diet appropriate for a person with Type 1 diabetes? Why or why not?

Due Thurs, 12-05

2.2.2 Activity Checklist

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5. 2.2.2. 4 Recommendations for a Diabetic Diet (in your NB with food label) 3
6. 2.2.2. Conclusion Questions 2
7. EXTRA CREDIT: USDA *SuperTracker* Report *7
 - Include 3-day food diary (of what you actually ate)
 - Include *Food Groups and Calorie Report*
 - Include *Nutrients Report*

Total = 15

2.2.2. Activity Directions

2.2.2. Nutritional Terms Chart

1. Obtain the Nutritional Terms Handout
2. Using internet resources, fill in the columns labeled *DEFINITION* and *IMPORTANCE* for each term
3. Show completed chart to Mr. Hwang to receive a stamp

2.2.2. Highlighted Food Labels Handout

1. Refer to curriculum file for more detailed instructions
2. Obtain a handout containing 4 food labels
3. Highlight in pink the nutrients that you would *limit* in your diet
4. Highlight in yellow the nutrients that you would want to make sure you get enough of in your diet
5. Make a color key to indicate which color represents what you would limit and what you would get plenty of

2.2.2. Label Analysis Chart

1. Refer to curriculum file for more detailed instructions
2. Obtain a Label Analysis Chart handout
3. Make sure to indicate what Food 1, 2, 3, and 4 are
4. You may have to calculate some DV values using the percentage given on the food label (since the actual amount may not be given)...see curriculum file for more details
5. Fill out the chart using the information on the food labels

2.2.2. Anna Garcia Nutrient Analysis

1. Refer to curriculum file for more detailed instructions.
2. Obtain Anna Garcia's Nutrient Analysis handout
3. Anna Garcia's food diary can be found under 2.2.1. files
4. Highlight the nutritional requirement where she is over and where she is under (you choose the color but be sure to include a key)

2.2.2. 4 Recommendations for a Diabetic Diet (in your NB with food label)

1. Refer to curriculum file for more detailed instructions. (see step 20-21)
2. Research on the internet the type of diet a diabetic should take in order to ensure the right nutrients are a part of the diet while other nutrients are limited
3. In your NB, write 4 recommendations about some good choices a diabetic should make in his or her food choices
4. Find and print out a food label of a food choice that a diabetic should make
5. Include this in your packet

EXTRA CREDIT: USDA *SuperTracker* Report

1. In order to receive the extra credit points, this must be done on your own and only when you are finished with the other parts of 2.2.2. activity (or done on own time at home)
2. All printing done for this must be printed elsewhere
3. You will be keeping track of what you eat for 3 days and entering in the information on the USDA *SuperTracker* website (you must create an account)
4. Include:
 - a) FOOD DIARY: Keep track of everything you eat for 3 days (3-day food diary)
 - b) Printed FOOD GROUPS AND CALORIE REPORT generated from the USDA *SuperTracker* website
 - c) Printed NUTRIENTS REPORT generated from the USDA *SuperTracker* website