Human Services
Principles of Human Services
Multiple Choice Science Assessment Questions

All science problems address TEKS 130.242. Principles of Human Services.

**Principles of Human Services**
(5) The student demonstrates the skills necessary to enhance personal and career effectiveness in family and community services. The student is expected to:

- (F) explain the impact of nutrition on development, wellness and productivity over the life span
- (G) prepare nutritious snacks or meals that contribute to wellness and productivity through the life span
- (H) analyze dietary practices across the life span

**Chemistry**
(3) Scientific processes. The student uses critical thinking, scientific reasoning and problem solving to make informed decisions within and outside the classroom. The student is expected to:

- (C) draw inferences based on data related to promotional materials for products and services
Based on the nutrition label below, which conclusion would be true?

- If the consumer ate the whole product, he would be eating two servings
- The fat intake on this food item exceeds the 30% of calories recommendation
- The food item serves as a good source of vitamin B₆
- The food item contains no fiber at all

![Nutrition Facts](http://pbskids.org/itsmylife/body/foodsmarts/article4.html)
2. Based on the nutrient label, which statement below is false?
   a. Of the 170 calories per serving, 110 calories come from fat
   b. Of the 170 calories per serving, 56 calories come from carbohydrates
   c. Of the 170 calories per serving, 8 calories come from protein
   d. This product’s calories primarily come from carbohydrates

[Image of a nutrient label]

Label from: http://pbskids.org/itsmylife/body/foodsmarts/article4.html
3. Based on the nutrition label below, which statement is true?
   a. If the consumer were to eat the whole container, the fat would account for 40% of the recommended fat calories for that day.
   b. If the whole container were eaten, the person would have used up 20% of his or her allotted 2000 calories per day.
   c. Of the 280 calories per serving, 52 are from fat.
   d. Of the 280 calories per serving, 45 are from protein.

![Nutrition Facts](http://recipes.howstuffworks.com/usda-nutrition-guidelines-ga.htm)
4. Susan is on a 2000 calories per day diet and wants to limit fats to 30% or less. She knows that her recommended intake for dietary fiber is 30 grams. If she eats toast in the morning, which statement is not true based on the nutrition label below?
   a. If Susan uses two slices, she will consume 382 calories
   b. If Susan eats two slices of toast, she will consume 104 calories from carbohydrates
   c. If Susan eats two slices of toast, she will consume 10.2 grams of protein
   d. If Susan eats four slices of toast, she will consume 8 grams from dietary fiber

![Nutrition Facts](image)
5. Based on the nutrition label below, what is the serving size?
   a. 170 calories  
   b. 2 slices  
   c. 28 grams  
   d. 19 pieces

![Nutrition Facts](http://pbskids.org/itsmylife/body/foodsmarts/article4.html)

**Principles of Human Services**

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(H) analyze dietary practices across the life span
Biology
(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:
   (A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids

Biology
(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:
   (A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals
   (C) analyze the levels of organization in biological systems and relate the levels to each other and to the whole system

Assessment Questions

6. Before Susan includes a small commercially packaged snack in her lunch box, she reads the nutritional label. One serving is 100 calories; the calories from fat are 80. From this fact, we may assume that:
   a. The snack has a healthy combination of proteins, carbohydrates and fats
   b. The snack has high fat content, possibly making it an unhealthy snack
   c. The snack has high protein content, a good choice for building tissue
   d. The snack has low fat content, a healthy choice for snacking.

7. An apple has 1 gram of protein but only from the skin. Every morning for a year, Michael, has eaten peeled apple slices with his breakfast. How many grams of protein has Michael consumed from the apples in a year?
   a. 0 grams
   b. 365 grams
   c. 182 grams
   d. We don't know
8. Arthur has begun weight lifting and was told he needs at least 70 grams of protein a day for his particular training regimen. He found several packages of steak that offer 20 grams of proteins per serving, but each package has a different number of portions. If Arthur has enough packages to only use one per day, how many servings must each package have?

   a. 3.5 servings  
   b. 4 servings  
   c. 3 servings  
   d. 2.5 servings

9. Angelina, a nutritionist, has a client who wants more fatty foods in her diet in order to gain weight. She knows that many fatty foods have saturated fats, a form of fat that may lead to increase in cholesterol. She does not want to expose her client this danger. Which nutritional choices should Angelina use?

   a. Increase lipids; the client can exercise them away  
   b. Increase vitamins; they will give the client more energy.  
   c. Increase proteins; they will allow the client to build more tissue  
   d. Increase carbohydrates; they are the bulk of calories in a diet.

10. When the chef is building his menu, he has to keep in mind which nutrients have the most calories. Of the following nutrients, which has the most calories per gram?

    a. Vitamin  
    b. Lipids  
    c. Carbohydrates  
    d. Proteins
## Answer Key

1) a  
2) d  
3) a  
4) a  
5) c  
6) b  
7) a  
8) a  
9) d  
10) b