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

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
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

1. The hotel chef has been asked to make a spicy daily soup. He utilizes capsaicin crystals, a concentrated crystal of the ingredient that makes peppers hot. The label for the container of capsaicin crystals states the total fat count as 0%. From this, what can we assume?
   a. The crystals have no lipids in them
   b. The crystals are saturated in lipids
   c. The crystals have a high amount of proteins
   d. The crystals have a high amount of calories

2. The hotel chef allowed the capsaicin crystal to slowly dilute in a large pot of soup before he applied heat. He knows the capsaicin crystals have no calories. What does this mean for the soup?
   a. The crystals will change the composition of the soup and the calories will increase
   b. The crystals will not add or take calories from the soup
   c. The crystals will take away calories from the soup
   d. The crystals are loaded with only proteins.

3. An assistant to the hotel chef is making a recipe for long distance runners who are preparing for a marathon the next day. She needs to concentrate on one particular nutrient to build this menu. She knows that the following is true:
   a. Simple carbohydrates are the best option because they give immediate energy, though they may cause a fall in energy shortly afterwards
   b. Proteins are the best option since they allow the runners to build tissue for their activity
   c. Complex carbohydrates are best because they take longer to be digested in the body, allowing the runners to pull on their energy for a much longer amount of time
   d. Vitamins are best since they may provide an extra source of energy
4. The coach has asked the camp nutritionist for a low sugar snack that the campers may consume for a quick burst of energy. Basically, he prefers natural foods to processed sugar treats. Which of the following food items would fit the request of the coach?
   a. Dried pieces of meat
   b. Dried fruits
   c. Greasy pieces of pork chops
   d. Slices of whole wheat bread

5. The camp nutritionist was told that all snacks must be low in saturated fats. What part of a food label would indicate how much saturated fat is in each portion?
   a. Under “Cholesterol”
   b. Under “Total Carbohydrates”
   c. Under “Protein”
   d. Under “Total Fat”

6. A camper cuts his leg and has to go to the camp nurse. After a small bandage, the nurse informs him that eating a certain nutrient and taking vitamins may help with healing. Which of the following nutrients provides the needed material for building tissue in the human body?
   a. Simple Carbohydrates
   b. Complex Carbohydrates
   c. Proteins
   d. Saturated Fats

7. An inspector at a hotel notices a kitchen practice that worries her. Dairy products have been left out for a prolonged amount of time. She cited the need to get rid of the food and explained the dangers of feeding hotel patrons the dairy products. Which of the following is the most likely cause for her concern?
   a. The dairy products have been out so long they have turned into yogurt
   b. The dairy products have been out so long they can’t be absorbed
   c. The dairy products may have begun growing bacteria
   d. The dairy products are meant to be served cold

8. A nutritionist is aware of the need for lipids in a diet and tries to explain this to a patient who refuses to eat any lipids at all. Which is the most likely reason for having lipids in a diet?
   a. Lipids weaken against infections
   b. Lipids interfere with carbohydrates
   c. Lipids combine with proteins to make bad cell walls
   d. Lipids are used to make cell membranes
9. A coach at a summer camp wants his campers to eat a balanced diet, however, he will allow sweet snacks from time to time. Which of the following would make the best type of sweet snack to eat?
   a. Beef Jerky
   b. Cheese sticks
   c. Apple
   d. Cabbage

10. Simple carbohydrates, like those in snacks, can be used as a quick energy source. Under which circumstance would simple carbohydrates work well?
    a. Before going to sleep
    b. Right after you get out of bed in the morning
    c. Right before you participate in a physical activity like playing a sport
    d. Right before you sit down to watch television
## Answer Key

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