

LESSON 15: NUTRITION

Grade-Level Outcomes

Primary Outcomes

Physical activity knowledge: Discusses the benefits of a physically active lifestyle as it relates to college or career productivity. (S3.H1.L1)

Assessments & program planning: Develops and maintains a fitness portfolio (assessment scores, goals for improvement, plan of activities for improvement, log of activities being done to reach goals, timeline for improvement). (S3.H1.L2)

Nutrition: Designs and implements a nutrition plan to maintain an appropriate energy balance for a healthy, active lifestyle. (S3.H13.L1)

Physical activity knowledge: Investigates the relationships among physical activity, nutrition and body composition. (S3.H1.L2)

Embedded Outcome

Nutrition: Creates a snack plan for before, during and after exercise that addresses nutrition needs for each phase. (S3.H13.L2).

Lesson Objectives

The learner will:

- participate in an open discussion on food, diet fads, and nutrition.
- keep a log of food intake for three days.
- analyze food intake for total calories, fat, protein, and carbohydrate and percentage of diet from fat, protein, and carbohydrate.
- develop a healthy meal plan for one to three days.
- evaluate a peer's meal plan.
- discuss the relationships among body composition, nutrition, and physical activity.

Equipment and Materials

- Three-day food intake logs
- Diet development templates
- Pencils
- Printable materials from ChooseMyPlate.gov: www.choosemyplate.gov/printable-materials
- RDA wall chart
- Assessment rubric for meal planning

Introduction

Today, you will begin the process of evaluating how well you eat. Understanding your food intake can go a long way toward determining how you might meet the fitness, health, and wellness goals you established earlier. To do that, we will review the basic components of nutrition, including protein, carbohydrate, and fat. You have been recording your food intake over three days, and we will use that information to perform a food analysis on your diet. From there, you can make adjustments to better accommodate your fitness and health goals. I'll also return your skill-related fitness plans to you. Please review the feedback and make adjustments as needed.

Instructional Task: Discuss the Effects of Appropriate Diet

■ PRACTICE TASK

Provide a PowerPoint presentation on the basic principles of diet and nutrition.

Guiding questions for students:

- What is the difference between diet and nutrition?
- What is a calorie?
- What are the three macronutrients?
- What are the characteristics of nutrient-dense foods?
- How can you maintain a good energy balance throughout the day?

Extension

The discussion can move into recommended dietary allowance (RDA) and MyPlate (www.choosemyplate.gov).

Student Choices/Differentiation

Provide handouts and materials to reinforce the information.

What to Look For

- Students can define both diet and nutrition correctly.
- Students recognize the three macronutrients.

Instructional Task: Analyzing Caloric Intake

■ PRACTICE TASK

Students review their food intake data collection sheets and identify the information necessary for each column.

Have students visit various websites that display caloric intake values and find the values for each food item they have listed. Students should determine whether consumed food is one or more servings.

Extension

Have students locate additional supplemental values for food (e.g., sugar, fiber, salt) and record them on the form, as well.

Student Choices/Differentiation

Provide handouts to assist students.

What to Look For

Students can quickly identify caloric values and differentiate them from the percentage of total calories.

Instructional Task: Create Diet Plan

■ PRACTICE TASK

Students use the worksheets to calculate caloric needs based on age, gender, and activity level.

Students calculate the percentages of protein, carbohydrate, and fat necessary in daily consumption.

They create a daily diet plan for one day with foods that fulfill the daily requirements for protein, carbohydrate, and fat in total calories and percentage of total calories.

EMBEDDED OUTCOME: S3.H13.L2. As students prepare a daily meal plan, ask them to think about trying new snacks. The snacks should address pre-exercise and post-exercise needs for skill-related fitness or resistance training.

Extension

Have students add several days to the diet plan and provide a greater variety of food products.

Student Choices/Differentiation

Students choose which foods to include in their diet plans.

What to Look For

Students are creating meal plans that fall within the guidelines.

Instructional Task: Peer Evaluation

■ PRACTICE TASK

Have students exchange meal plans with someone who hasn't been their partner before. Hand each student a copy of the assessment tool for meal planning. A basic assessment tool (e.g., www.super-tracker.usda.gov) allows peers to check for mathematical errors, evaluate the food intake for each food group, and measure intake adjustments based on goals of adding or losing weight.

Students review the meal plan content for total calories, fat, carbohydrate, and protein based on the initial calculations and check to see if the plan fits.

Student Choices/Differentiation

Students choose their partners.

What to Look For

- Students are making accurate evaluations with the rubric.
- Students are providing feedback in a positive, supportive manner.

Instructional Task: Discussion on Body Composition

■ PRACTICE TASK

At the beginning of the module, you calculated your body mass index (BMI) as a measure of body composition. Now that we have discussed nutrition, let's talk about the relationships among body composition, physical activity, and nutrition.

Guiding questions for students:

- How does physical activity affect your body composition?
- Why is BMI not a good measure of body composition for active people?
- How does the food you eat affect body composition?
- How are excess calories stored in the body?
- How is body composition related to health?

Student Choices/Differentiation

Provide handouts with summaries of information about body composition and nutrition.

What to Look For

Students are engaged in the discussion.

Formal and Informal Assessments

- Meal plans
- Peer assessments of meal plans
- Physical activity logs

Closure

- Gaining an understanding of how food intake affects our ability to become and stay fit is important.
- For this lesson, we examined how to estimate your daily caloric intake and where those calories came from.
- Knowing about foods and the macronutrients they contain helps you maintain your current weight or to gain or lose weight safely.
- Turn in your physical activity logs.
- Have you heard about obstacle courses, such as mud runs? In our next class, we will wrap things up with an obstacle course that will test your skill-related fitness components in a team format. Come to class ready to be challenged!

Reflection

- Are students understanding that what you put into your body makes you who you are?
- Do they understand how to complete a nutritious meal plan?
- Review physical activity logs. Are students completing enough physical activity to meet government recommended guidelines?

Homework

- Share your daily meal plan with your parents and ask whether you can participate in grocery shopping for the week.
- Practice your skill-related fitness plan activities at home.

Resources

Powers, S., Dodd, S., & Jackson, E. (2014). *Total fitness and wellness*. 6th ed. San Francisco: Pearson.

ChooseMyPlate: www.choosemyplate.gov

MyFitnessPal: www.myfitnesspal.com (free calorie counter)

SuperTracker: www.supertracker.usda.gov