Lesson Title: Nutrition Run

Time: 30 minutes

Grade Level: 5

Unit Name: Nutrition

Lesson Number: 3

Key Concepts
Students analyze how nutrients support a healthy body.

Vocabulary
Nutrient, benefit, harmful, saturated fat, trans fat, unsaturated fat, carbohydrate, protein, iron, calcium, Vitamin A, Vitamin C, and fiber.

OSPI Health and Fitness Standards
This lesson will address GLE 1.5.1 – Analyzes how the body’s function and composition are affected by food consumption.

OSPI-Developed Assessment
Mrs. Trimble’s Muffins

OSPI-Developed Health and Fitness Assessments

Objectives for Student Learning
1. Student will understand how each of the following supports a healthy body:
   - Vitamin A, Vitamin C, calcium, iron, carbohydrate, unsaturated fat, saturated fat, protein, and fiber.
2. Student will select common foods that each nutrient can be found. Examples include:
   a. Oranges are a good source of Vitamin C.
   b. Low-fat milk is a good source of calcium.
   c. Bacon is a source of saturated fat.
   d. Salmon is a good source of unsaturated fat.
   e. Whole grain bread is a good source of carbohydrates.
3. Student will demonstrate safety rules and procedures in a variety of physical activities.
4. Student will demonstrate sportsmanship and cooperative skills.

Safety
During the fitness entry activity, students should:
- Be in a good personal space.
- Move safely around people.

During the game activity:
- Clearly state the running path.
- Students will travel in the same direction in the running path using safe personal space.
- Nutrition Matching Cards need to remain on the inside of the team cones.
- Card pick-up location should be outside the running path and easy access to all teams.

Equipment/Materials
- Nutrition Matching Cards, pages 6-28.
- Nutrition Building Block Posters – posted on the Nutrition Information Wall. (Refer to pages 29-40).
- 7 colored cones or markers (2 of each).
- 2 “grocery baskets” or large containers with food model cards.
- 7 small containers to hold cards.
- Pedometers, one per student.
and/or social interaction.

**National Health Education Standards**

This lesson aligns with the National Health Education Standards.

**Standard 1** – Students will comprehend concepts related to health promotion and disease prevention to enhance health.

**Standard 5** – Students will demonstrate the ability to use decision-making skills to enhance health.

**Standard 7** – Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

**Resources:**
- Appropriate Practices for Elementary School Physical Education, NASPE.
- Kids Health www.kidshealth.org
- Moving Into the Future: National Standards for Physical Education, NASPE.
- MyPlate www.choosemyplate.gov
- Nutrition Explorations www.nutritionexplorations.org
- OSPI Health and Fitness Vocabulary - Grade 5 - Grade 8 - High School
- Washington Dairy Council www.eatsmart.org

**Essential Questions**

- How do nutrients support a healthy body?
  Answer: Nutrients provide the body with energy, are essential for growth and development, help regulate body functions, or help build and repair tissues.
- Where do we find nutrients?
  Answer: Common foods such as bread or pasta for carbohydrates; meat or fish for proteins; butter or oil for fats; vegetables or fruits for vitamins; meat or dairy products for minerals; and fruits or milk for water.

Prior to this activity, students have knowledge of nutrients found on food labels and common sources of foods of the given nutrient.

**Procedure/Instruction Activity Set-up**

**Fitness Entry Activity** (Refer to Diagram – Nutrition Run Gym Set-Up, page 5). Students have a four step entry task posted on the wall. As students enter the gym, they will begin the four-step entry task.

1. Complete 300 steps around the gym wearing a pedometer.
3. Complete this many push-ups – question: “How old are you?”
4. Complete this many curl-ups – question: “How many nutrition building block posters are on the Nutrition Information Wall?”

Safety Precautions: Be in a good personal space and move safely around people when completing the entry tasks.

**Warm-up**

1. After students complete the entry task, they begin to jog around the gym. The teacher will throw a disc to students who return the disc by dropping the disc into the designated basket. Students work to increase the number of steps on their pedometer.
2. Upon completion of warm-up, students will meet the teacher at the Nutrition Information Wall.

**Activity Set-up**

1. 1 colored cone for each team to line up, placed along the inside of the perimeter of the gym. (Refer to Diagram – Nutrition Run Gym Set-Up, page 5).
2. 1 matching colored cone for each team along with a basket of Nutrition Matching Cards, pages 6-28, placed on the stairs for students to pick up as they jog by.
3. Nutrition Building Block Posters, pages 29-40, posted on the Nutrition Information Wall in the gym, for students to refer to as a resource, if they need assistance when matching nutrition information with its function in the body.
4. 2 baskets placed across the gym from the team lines containing food cards (food cards are available from the Washington Dairy Council), also known as the “grocery store.”
5. Space around the perimeter of the gym for students to walk/jog/run.

**Review**

1. What is a nutrient?
2. Information on the Nutrition Information Wall:
   - Nutrients.
   - Functions in body.
   - Common foods found in the nutrients. (Refer to Nutrition Building Block Posters, pages 29-40).
3. Safety considerations:
   - Be in a good personal space.
   - Clearly state the running path.
   - Students will travel in the same direction in the running path using safe personal space.
   - Nutrition Matching Cards need to remain on the inside of the team cones.
Card pick-up location should be outside the running path and easy access to all teams.

Activity Instruction
1. Divide students into groups of 2-3. Each team will start at their home base which has a designated colored cone. (Refer to Diagram – Nutrition Run Gym Set-Up, page 5).
2. Each student wears a pedometer. The goal: Achieve 3,000 steps by the end of the class period (to reach this goal, students must be moving approximately 95% of the class period).
3. All students walk/jog/run the perimeter of the gym, collecting Nutrition Matching Cards from their team basket (marked by colored cone) and delivering them back to their home base.
4. When all Nutrition Matching Cards have been collected by a team, the team organizes the nutrients to match the nutrients function (harmful or beneficial) in the body. If a group is unsure of a match, the function card is taken to the Nutrition Information Wall and compared until a match or correct answer is found.
5. When the matching task is complete, students work on creating a relationship between nutrients and common foods that are good sources of the nutrient by collecting food cards. (Refer to page 4 for a correct example.)
6. Teacher will check the completed work. If they are incorrect, the teacher uses guiding questions to help them correct their mistakes or refers the student to the Nutrition Information Wall.
7. After accurate completion of creating this relationship, the team meets the teacher by the Nutrition Information Wall for lesson closure.
8. During the activity, the teacher:
   - Circulates throughout the classroom.
   - Evaluates student’s ability to analyze placement of cards.
   - Provides positive reinforcement.

Closure/Assessment
Pair-share while jogging in place: “How do nutrients support a healthy body?”
1. Discussion Questions
   a. What is one benefit of calcium?
   b. What is one benefit of protein?
   c. What is one harmful effect of too much trans fat?
   d. What is one benefit of unsaturated fat?
   e. Is body composition affected by the food choices we make?
2. Read your pedometer number to your partner. Goal: Achieve 3,000 steps by the end of the class period. When exiting, return pedometer, share total steps with teacher. Teacher provides positive feedback for all efforts to reach 3,000 step goal.
Example of Nutrient Match

When the matching task is complete, students work on creating a relationship between nutrients and common foods that are good sources of the nutrient by collecting food cards.

- **Carbohydrate**
  - Nutrient
  - Function in Body: A major source of energy for the body.
  - Common Food (Food Model)

Food Cards available at WA Dairy Council
www.eatsmart.org
Diagram - Nutrition Run Gym Set-Up

Nutrition Building Block Wall with posters

Baskets with Nutrition Matching Cards

Jogging

Students jogging in place in teams of 3+

X X X X X X X X X
X X X X X X X X X
X X X X X X X X X

Colored cones

Grocery baskets with Food Cards
(Food Cards available at WA Dairy Council
www.eatsmart.org)

--- Jogging

--- Jogging
Nutrition Matching Cards
Carbohydrate
A major source of energy for the body.
Iron
Important in the formation of hemoglobin [{\textit{hee}-\textit{muh}-\textit{gloh}-\textit{bin}}], which is the part of red blood cells that carries oxygen throughout the body.
Trans Fats
Eating too many foods high in trans fats can raise blood cholesterol and increase the risk of heart disease.
Vitamin C
Assists in healing cuts and bruises and helps the body resist infections.
Calcium
Helps build strong bones and teeth.
Saturated Fat
Eating too much can raise blood cholesterol and increase the risk of heart disease.
Vitamin A
Important for healthy hair and skin.

Necessary in night vision.
Protein
Helps the body build and repair muscles, blood, and organs.
Unsaturated Fat
Helps the body absorb some vitamins and is important for growth and development.
Water
Helps your body stay at the right temperature, digests food, and gets rid of waste.
Nutrition Matching Cards

Fiber
Helps slow digestion and prevents constipation.
Nutrition Building Block Posters
**Calcium**

Helps build strong bones and teeth.

**Foods:** Dairy products and broccoli . . .
Iron

Important in the formation of Hemoglobin, which is the part of red blood cells that carries oxygen throughout the body.

Foods: Beef, tuna, salmon, eggs, leafy green vegetables, whole grains, and raisins . . .
Unsaturated Fats
Heart healthy fats

Helps the body absorb some vitamins and is important for growth and development.

Foods: Olive oil, salmon, nuts and seeds, and some vegetable oils . . .
Trans Fats

Eating too many foods high in trans fats can raise blood cholesterol and increase the risk of heart disease.

Foods: Margarine, fried foods, and hamburgers . . .
Vitamin C
Assists in healing cuts and bruises and helps the body resist infections.

**Foods:** Citrus fruits, broccoli, tomatoes, cabbage, kiwi, and cantaloupe . . .
Carbohydrates

A major source of energy for the body.

Foods: Whole grains, vegetables, and fruits . . .
Protein
Helps the body
build and repair muscle, blood, and organs.

Foods: Beef, poultry, fish, eggs, dairy products, nuts, seeds, and legumes . . .
Water

Helps your body stay at the right temperature, digests food, and gets rid of waste.

**Foods:** Beverages and foods . . .
Saturated Fats

Eating too much can raise blood cholesterol and increase the risk of heart disease.

**Foods:** Meat and other animal products . . .
Vitamin A
Important for healthy hair and skin. Necessary in night vision.

Foods: Orange fruits and vegetables, dark green leafy vegetables, and liver . . .
Fiber
Helps slow digestion and prevents constipation.

Foods: Fruits, vegetables, whole grains, nuts, and legumes . . .
Vocabulary – Nutrition Run

**Balanced Diet** – Eating and drinking the right amount of nutrients using a variety of food groups.

**Balanced Meal** – Eating from a variety of food groups from the food pyramid.

**Benefit** – Something promotes or enhances health and well-being.

**Brochure** – A pamphlet used for informational purposes.

**Calcium** – Helps build strong bones and healthy teeth. Food examples: dairy products, broccoli, soybeans, and leafy green vegetables.

**Calorie** – A unit of energy found in food.

**Carbohydrate** – A major source of energy for the body. Food examples: whole grains, vegetables, and fruits. Most sugars and starches also contain carbohydrates.

**Diet** – A selection of foods.

**Essential Nutrients** – The nutrients that a person gets from food are called the essential nutrients. The six classes of essential nutrients include:

- Carbohydrates – A major source of energy for the body
- Fats – Provides energy, helps growth and repairs cells, and dissolves and carries certain vitamins to cells
- Minerals – A nutrient that performs many functions in regulating the activities of cells
- Proteins – Used for building, maintaining, and repairing tissues and cells
- Vitamins – A nutrient needed in small amounts for growth and repairs body cells
- Water – Approximately 60% of the adult human body is composed of water. An essential role of water is to maintain body temperature through evaporation, as in sweating. Helps digest food and gets rid of waste.

**Fat** – Fat is important nutrient that the body uses for growth development.

**Fiber** – Helps slow digestion and prevents constipation. Food examples: fruits, vegetables, whole grains, nuts, and legumes.

**Food Pyramid** – A tool for choosing a healthy diet by selecting a recommended number of servings from each of the food groups e.g., grains, vegetables, fruits, oils, dairy, meat, and beans.

**Harmful** – Causing or capable of causing harm (injury).

**Iron** – Important in the formation of red blood cells which transports oxygen throughout the body. Food examples: beef, tuna, salmon, eggs, beans, leafy green vegetables, raisins, and whole grains.

**Limited** – A small amount.

**MyPlate** – MyPlate is the current nutrition guide published by the United States Department of Agriculture, depicting a plate and glass divided into five food groups.

**MyPyramid** – MyPyramid is an update on the American food guide pyramid that was used until June 2, 2011, when the USDA's MyPlate replaced it. The icon stresses activity and moderation along with six food groups.

**Nutrient** – A substance in food that provides energy or helps form body tissues and that is necessary for life and growth.

**Protein** – Helps the body build and repair muscle, blood, and organs. Food examples: beef, poultry, fish, eggs, dairy products, nuts, seeds, and legumes.

**Saturated Fat** – Eating too much can raise blood cholesterol levels and increase the risk of heart disease. Food examples: meat and other animal products, butter, cheese, milk products (except skim), palm and coconut oils are all examples of saturated fats.

**Trans Fat** – Trans fat can raise blood cholesterol levels and increase the risk of heart disease. Food examples: margarine, many snack foods, hamburgers, and fried foods.
Vocabulary – Cont.

Unsaturated Fat – Good for heart health. Helps the body absorb some vitamins and is important for growth and development. Food examples: olive oil, peanut oil, canola oil, nuts, seeds, albacore tuna, and salmon.
Vitamin A – Important for healthy hair and skin. Necessary in night vision and seeing colors. Food examples: orange fruits and vegetables, dark green leafy vegetables, and liver.
Vitamin C – Assists in healing cuts and bruises and helps the body resist infections. Food examples: citrus fruits, broccoli, tomatoes, cabbage, kiwi, and cantaloupe.

Nutritional Facts – Food label indicating value of contents.
Reliable – Capable of being relied on; dependable.
Sincere appreciation is extended to the members of the Health and Fitness Video Production Team and the Review Panel for their time, expertise, and commitment to ensuring that all students in Washington achieve the state standards and assessments in health and fitness.

**Health and Fitness Video Production Team**

<table>
<thead>
<tr>
<th>Elementary</th>
<th>Middle School</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dan Persse</td>
<td>Jennifer Johnson</td>
<td>Dawn Boyden</td>
</tr>
<tr>
<td>Blaine School District</td>
<td>Bellevue School District</td>
<td>Lake Stevens School District</td>
</tr>
<tr>
<td>Dana Henry</td>
<td>Mary Trettevik</td>
<td>Gayle See</td>
</tr>
<tr>
<td>Diane Olliffe</td>
<td>Sara Saverud</td>
<td>Marty Neyman</td>
</tr>
<tr>
<td>Patricia Jean Jarvis</td>
<td></td>
<td>Tracy Krause</td>
</tr>
<tr>
<td>Central Valley School District</td>
<td></td>
<td>Tahoma School District</td>
</tr>
</tbody>
</table>

**Office of Superintendent of Public Instruction**
Anne Banks, Learning and Technology Program Manager  
Lisa Rakoz, Health and Fitness Program Supervisor  
Jessica Vavrus, Assistant Superintendent for Teaching and Learning

**Project Manager**
Rick Haag

For more information about the contents of this document, please contact the Program Supervisor for Health and Fitness Education.

This publication was supported by Cooperative Agreement Award No. DP08-801 5U87DP001264 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC.

OSPI provides equal access to all programs and services without discrimination based on sex, race, creed, religion, color, national origin, age, honorably discharged veteran or military status, sexual orientation including gender expression or identity, the presence of any sensory, mental, or physical disability, or the use of a trained dog guide or service animal by a person with a disability. Questions and complaints of alleged discrimination should be directed to the Equity and Civil Rights Director at (360) 725-6162 or P.O. Box 47200 Olympia, WA 98504-7200.