



Grade: Basic/4-5

Objective:
Students will identify the amount of energy provided in one gram of carbohydrates, fat and protein.

Equipment:

- Poly Spots
- Small Foam Balls

CCSS:
SL.2
Gr 4-5
L.6
Gr 4-5

Energy Tag

Explanation:

Our bodies receive energy from the food we eat every day (Energy In, Energy Out). Energy in food is measured by the number of calories it contains. The energy in food is found in the three macronutrients: carbohydrates fat and protein.

Carbohydrates provide 4 calories in each gram. Exercises that are higher in intensity will use carbohydrates as their energy source.

Fat provides 9 calories in each gram. Exercises that are low in intensity will use fat as their energy source.

Protein provides 4 calories in each gram and is used primarily to build and repair muscle.

Directions:

1. Create multiple triangles with poly spots throughout the play area.
2. Separate students into groups of three.
3. Have each group of students find a triangle to play catch around.
4. Students throw and catch a small foam ball using proper form.
5. On the signal to stop, the student with the ball becomes the tagger. The tagger represents carbohydrates and attempts to tag other students as they all run to the right around the triangle.
 - If a student is tagged by the tagger representing carbohydrates, he/she steps inside the triangle and performs 4 rocket blasters. This demonstrates that there are 4 calories in 1 gram of carbohydrate.
6. Students will resume throwing and catching after tagged students have completed 4 rocket blasters.
7. On the signal to stop, the student with the ball becomes the tagger. This tagger represents fat and attempts to tag the other two students as they all run to their right around the triangle.
 - If a student is tagged by the tagger representing fats, he/ she steps inside the triangle and performs 9 jumping jacks because there are 9 calories in 1 gram of fat.
8. Students will resume throwing and catching after tagged students have completed 9 jumping jacks.
9. On the signal to stop, the student with the ball becomes the tagger. This tagger represents proteins and attempts to tag other students as they all run to the right around the triangle.
 - If a student is tagged by the tagger representing protein, he/she steps inside the triangle and performs 4 push-ups. This demonstrates that there are 4 calories in 1 gram of protein.

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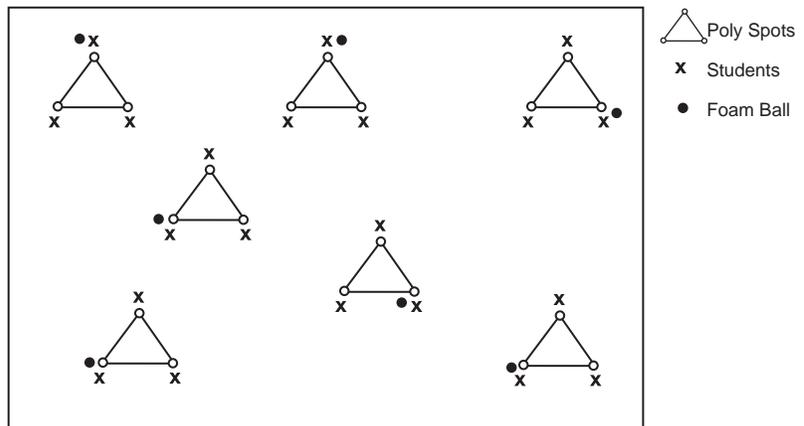


Energy Tag - Cont'd

10. Students will resume throwing and catching after tagged students have completed 4 push-ups.
11. On the signal to stop, the student with the ball will represent the nutrient selected by the teacher and attempt to tag other students while they all run to the right around the triangle.
 - This will provide the students an opportunity to demonstrate the correct calories contained in 1 gram of carbohydrates, fat or protein.

Assessment:

At the end of the activity, ask students to identify the correct number of calories per gram of carbohydrates, fat and protein.





Grade: Basic/K-5

Food Group InfoCube Warm-Up

Objective:
Students will demonstrate through activity the recommended daily amounts for each food group.

Explanation:
There are five food groups represented on the USDA's MyPlate. Each food group has a recommended amount that should be eaten daily for good health. Although oils should be used sparingly, we do need small amounts to maintain health. The term **Recommended Daily Amount** is sometimes shortened to just **RDA**.

Equipment:

- InfoCube
- Nutrition Cards
- 4 Cones

Directions:

1. Put five Nutrition Cards in the InfoCube pockets. Each pocket will hold a different Food Group. The sixth pocket is for oils.
2. Students jog around the play area at a comfortable pace.
3. Every 15-30 seconds, toss the InfoCube into the air and let it fall.
4. Students stop their jog and perform specified exercises according to the face-up side of the InfoCube and the chart below.

CCSS:

RI.3
Gr K-3

SL.1, 2
Gr K-5

SL.6
Gr K-3

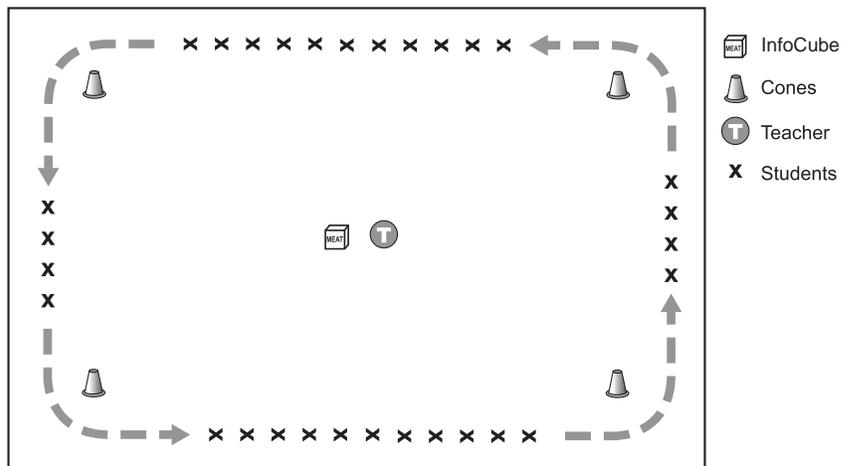
L.1, 6
Gr K-5

L.5
Gr K-3

5-8 Years Old			9-11 Years Old		
Food Group	RDA (est.)	Exercise	Food Group	RDA (est.)	Exercise
Grains	4-6 oz.	4-6 mt. climbers	Grains	5-7 oz.	5-7 mt. climbers
Vegetables	1.5-2.5 cups	1-3 crunches	Vegetables	2-3 cups	2-3 crunches
Fruits	1-2 cups	1-2 coffee grinders	Fruits	1.5-2 cups	1-2 coffee grinders
Dairy	2.5-3 cups	2-3 push-ups	Dairy	3 cups	3 push-ups
Protein Foods	3-5.5 oz.	3-6 squat thrusts	Protein Foods	5-6 oz.	5-6 squat thrusts
Oils	4-6 tsp.	4-6 second rest	Oils	5-6 tsp.	5-6 second rest

12-13 Years Old			14-18 Years Old		
Food Group	RDA (est.)	Exercise	Food Group	RDA (est.)	Exercise
Grains	5-9 oz.	5-6 mt. climbers	Grains	6-10 oz.	6-10 mt. climbers
Vegetables	2-4 cups	2-4 crunches	Vegetables	2.5-4 cups	2-4 crunches
Fruits	1.5-2 cups	1-2 coffee grinders	Fruits	1.5-2.5 cups	1-3 coffee grinders
Dairy	3 cups	3 push-ups	Dairy	3 cups	3 push-ups
Protein Foods	5-6.5 oz.	5-7 squat thrusts	Protein Foods	5-7 oz.	5-7 squat thrusts
Oils	5-6 tsp.	5-6 second rest	Oils	5-11 tsp.	5-11 second rest

Assessment:
At the conclusion of the game ask students the recommended daily amounts for each of the food groups.





Grade: K-3

Objective:
Students will explain how the body uses oxygen during exercise

- Equipment:**
- 50-60 Small Objects
 - 5 Hula Hoops
 - 4 Cones

HEART HEALTH RELAY

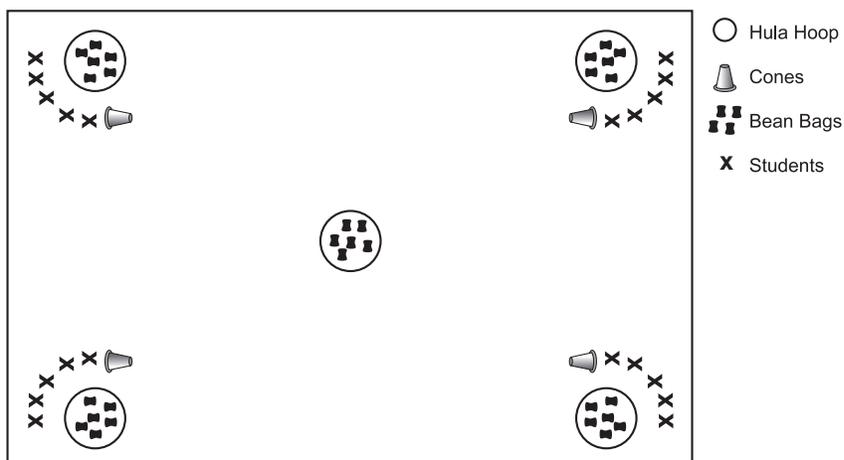
Explanation:

The heart pumps blood with oxygen in it to the working muscles. Muscles use oxygen to produce energy. Doing activities that require the heart to pump faster for a long period of time strengthens the heart. A stronger heart provides a person with more energy for work and play.

Directions:

1. Divide class into 4 equal groups. Each group is lined up in a corner of the gym next to a hula hoop (their muscle).
2. Two hula hoops are the muscles in the arms and two hula hoops are the muscles in the legs.
3. Students are blood cells and their job is to bring oxygen to their muscle. The muscle needs the oxygen to produce energy.
4. The heart (hula hoop in the middle of the gym) is an equal distance from the muscle groups. Inside the heart there are 50-60 small objects such as beanbags, hockey pucks, or foam balls. These objects represent oxygen.
5. Students (blood cells) run in relay fashion to the heart and take one oxygen (beanbag) back to their muscle. When the heart is out of oxygen the game is over.
6. Students then count the number of oxygen (beanbags) in their muscle. The team that has the most oxygen in their muscle has the happiest muscle because it has more energy to keep moving.
7. Next, lead a discussion about how a stronger heart (cardiorespiratory system) pumps more blood and delivers more oxygen to the muscles, which allows a person to keep moving for a long period of time.

Assessment: See class discussion questions at the end of this unit.





Grade: Basic/K-5

Objectives:
Students will identify the names and location of muscles.

Equipment:
• None

CCSS:
SL. 2, 3
Gr K-2
L. 6
Gr K-5

The Notion Of Muscle Motion

Explanation:

Muscles are used to produce movement. The Notion of Muscle Motion will help students learn nine major muscles by name and location.

Directions:

1. Students are in scatter formation with the teacher in front so that all students can see the teacher.
2. The teacher recites the poem while pointing slowly to the different muscles.
3. Repeat several times.
4. This activity can be used as the beginning of a warm-up or when students line up to leave.

Assessment:

At the end of class teacher calls out a name of a muscle while students point to it.

- ✓ **Biceps**, biceps bend the arm,
- ✓ **Triceps**, triceps straighten the arm,
- ✓ **Pectorals** Yes! I can push away harm!
- ✓ **Deltoids**, deltoids push to the sky,
- ✓ **Latissimus dorsi** can help me climb high,
- ✓ **Hamstrings, gluteals**, stand me up tall,
- ✓ **Quadriceps**, quadriceps kick the ball,
- ✓ **Abdominals** protect the intestinal wall!

Fun and easy!



OXYGEN TRANSPORT

Explanation:

Muscles use oxygen to produce energy. They receive oxygen from the blood. After the blood has delivered the oxygen to the muscles, the blood travels back to the heart and lungs to pick up more. Many bad habits such as smoking, lack of exercise, drug use and obesity may interfere with the body's ability to utilize oxygen efficiently.

Directions:

1. Divide students into 4 groups depending on the number of students. Each team provides one bad habit.
2. Blood cells try to get into the heart and lungs without being tagged by a bad habit. Once they enter the heart and lungs, they may get one beanbag (oxygen) and try to return it to the muscle without being tagged. If blood cells are tagged they return to their muscle and do 5 jumping jacks and 2 push-ups before they venture out into the body again.
3. Blood cells are trying to get all of the beanbags (oxygen) to the muscle. When the heart and lungs are empty, they may count the number of beanbags (oxygen) in the muscle. This is a good time to talk about which muscles will be able to produce more energy (those who have the most bean bags).
4. Taggers (bad habits) may not enter the heart and lungs or muscle zones; they are safety zones.
5. After 2 minutes, stop game and switch taggers (bad habits).

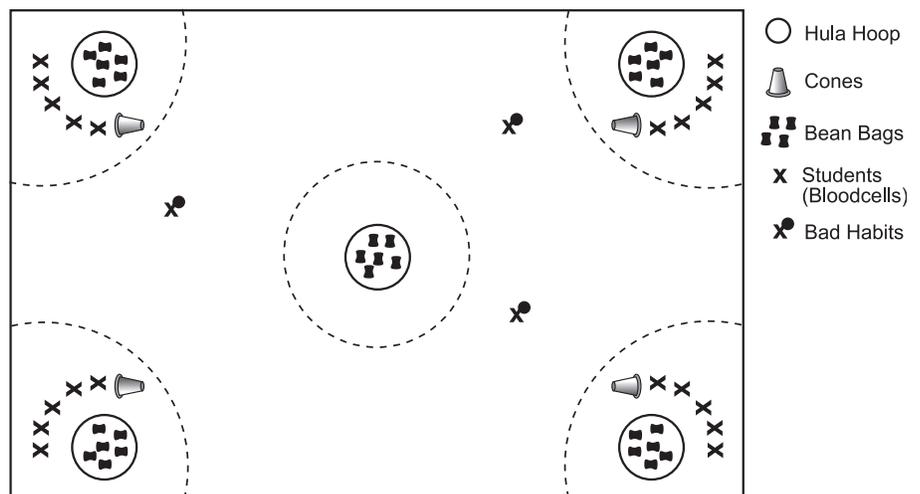
Assessment: Lead class discussion with these questions: Why do the muscles need oxygen? How do bad habits affect oxygen getting to the muscles? Where does the blood get oxygen from?

Grade: Basic/4-5

Objective:
Students will describe how the body uses oxygen during exercise.

Equipment:

- Cones
- Hoops
- Beanbags





Grade: Basic/4-5

Objective:
Students will be able to name risk factors for heart disease.

- Equipment:**
- Cones
 - Stability balls

RISK FACTOR FOUR SQUARE

Explanation:

Heart disease is the number one health problem in America. It accounts for more deaths than all other diseases combined. There are risk factors that increase a persons chance of suffering from heart disease. Some risk factors a person has no control over, such as, age and heredity. Other risk factors are well within a persons control, such as smoking, poor nutrition, inactivity, and obesity.

Directions:

1. Divide play area into four squares and number the squares 1-4.
2. Divide the class into five teams.
3. To start each team has a square and one team is out waiting in line
4. The Object is to stay in the square (healthy) as long as possible.
5. Each team starts with a stability ball in their square. The stability ball represents one of the risk factors (smoking, poor nutrition, inactivity, and obesity)
6. On the signal, teams throw the stability balls (risk factor) into other squares. If at any time all four balls (risk factor) are in one square, that square is out and the new team comes in.
7. At the teacher’s discretion, the teacher will explain that life is not always fair. There are some risk factors we have no control over such as aging, gender or heredity. The teacher may pick a team and give them a risk factor they can do nothing about. This would mean that they would only have to have three balls risk factors in their square.

Assessment: At the end of the game, ask students to tell a partner 2 different risk factors

