

TRAIN

@

School



Special Olympics



Teachers, Coaches, Schools, and Students:

The TRAIN @ School program was designed to meet the need for more nutrition and fitness education to school age persons with intellectual disabilities. Nutrition lesson plans, along with adaptive physical education lesson plans were based off of the TRAIN assessment program implemented by Special Olympics. These lesson plans are aimed toward students with intellectual disabilities, but can be used for any student through twelfth grade in a special education, inclusive, or general education classroom. This is possible due to the different levels of complexity built into each activity.

The subjects covered in the nutrition lessons include food groups, hydration, healthy snacking, and what a balanced plate looks like. Curriculum connections are included in each nutrition lesson plan. These relate the activities and skills used in each lesson to specific standards in core subjects or life skills that are common goals on an IEP (individualized education plan).

The adaptive physical education lessons cover the seven basic sports skills: aerobic endurance, balance, coordination, flexibility, power, strength, and speed and agility. Each lesson includes the definition of the skill, along with what sports it could correlate with. It is suggested that lessons be used as introductions to specific sports. Each lesson includes fun activities targeted to that specific sports skill. These lessons can tailored to the different abilities of the students in class and would be beneficial in improving fine and gross motor skills according to individual IEPs. The games and activities are meant to be fun and an easily accessible tool to school systems.

The lesson plans are a valuable tool in a classroom because they are easy for teachers to implement. They are not built as a rigid curriculum that requires a specific sequence, giving educators a good deal of flexibility to slide it into their already chosen curriculum. TRAIN @ School could be a beneficial way to improve health through proper nutrition and the encouragement of exercise in the school system.

Food Group Lesson Plan TRAIN @ School

Objectives

- Know the functions of each food group
- Identify which food groups common food items belong in

Outline

- Introduction :
 - Discussion favorite foods and healthy foods
- Instruction:
 - Discuss five food groups
 - Grains
 - Fruits
 - Vegetables
 - Meats and Beans
 - Dairy
 - Discuss fats and oils
- Activity:
 - Food function worksheet
 - Food motion game
 - Food toss game



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Supplies

Time: 15-60 minutes

Materials:
Worksheets, beanbags
baskets, artificial food/
pictures of food

Resources:

Special Olympics Website : <http://www.specialolympics.org/>

TRAIN SO Website: <http://trainso.blogspot.com>

Food Groups

- Time: 15-60 minutes
- Materials: worksheets, beanbags, baskets, artificial food items (if you want to give a visual representation), picture of food
- Objectives:
 - Student will verbally state the function of each food group.
 - Student will identify which common food items belong with each food group 3 out of 5 consecutive opportunities.
- Introduction to Lesson:
 - Open with discussion of favorite foods.

We're going to talk about food today. One of my favorite foods is strawberries. What are your favorite foods to eat?
 - Explain the purpose of the lesson.

We talked about our favorite foods. Each food that was mentioned belongs to a specific food group. Each of the five food groups helps our body in a different way. Fruits, vegetables, grains, meats and beans, and dairy help our body stay strong and healthy.
 - Discussion of healthy foods.

What do you think are some healthy foods? Write these on the board (or draw them); this may be helpful for some students.
- Instruction

It is suggested to have picture or artificial foods from each food group to serve as a visual prompt for this lesson

- Discuss the five food groups →
 - Fruits: **Apples, oranges, bananas are all fruits. Can anyone give me another example of a fruit?** (Write these on the board, add some other examples if necessary). **Fruits have nutrients that keep your body healthy, especially your skin. It's important to eat fruit each day. An easy way to add fruit into your diet is to have it as a snack or a delicious dessert.**
 - Vegetables: **Peas, carrots, and green beans are all vegetables. Can anyone give me an example of another vegetables?** (Write these on the board, add some other examples if necessary). **Vegetables have nutrients that keep your body healthy, especially your eyes. It's important to get lots of vegetables each day.**
 - Fruit and Vegetable Tip: **Eat a variety of colors of fruits and vegetables each day. Remember the rainbow: red is for tomato or apples, orange is for carrots or oranges, yellow is for corn or lemon,**

green is for broccoli or kiwi, blue is for blueberries, purple is for eggplant or grapes.

- **Grains: Pasta, crackers, and popcorn are all types of grains. Can anyone give me another example of grains?** (Write these on the board, add some other examples if necessary.) **Grains give your body energy, especially to run and play.**
 - **Grains Tip: Instead of eating only white bread, white rice, and regular pasta, try to get half of your grains each day from whole grains. Whole grains are usually brown in color and have more vitamins.**
- **Meats and Beans: Eggs, black beans, and ham are all examples of meats and beans. Can anyone give me another example of meats and beans?** (Write these on the board, add some other examples if necessary.) **Meats and Beans make your body and muscles strong.**
 - **Meat and Beans Tip: Choose less fattening meat like turkey, chicken, seafood, and sirloin steak.**
- **Dairy: Cottage cheese and yogurt are examples of dairy. Can anyone give me another example of dairy?** (Write these on the board, add some other examples if necessary.) **Dairy helps keep your bones and teeth strong.**
 - **Dairy Tip: Try to include one source of dairy in each meal daily to get enough calcium.**

○ Discuss oils and fats

Some things that we eat don't really fit into one of the five food groups. For example, mayonnaise does not fit into the fruit, vegetable, meat and bean, grain, or dairy food group. Foods like mayonnaise, which have a lot of oil and fat, have their own little group. Can anyone think of other foods that fall into this group? (Write these on the board, add some other examples if necessary.) **Oils and fats provide cushion for your body.**

- **Oils and Fats Tip: These should only be eaten in small amounts such as special occasions.**

• Activity

○ Food function worksheet:

- While instructing the students about the functions of food, have them complete, a fill in the blank work sheet. This worksheet will be a picture of a person with six lines coming off the body from various areas. (A line needs to be next to the following body areas: hands (fruits), eyes (vegetables), legs (grains), arms (meats and beans), teeth (dairy), and bottom (oils). The students will write what food group is associated with that part of the body.

- Planned Differentiation: Worksheet can be adapted depending on the age and ability of the students. There could be word banks, or more complicated pictures. Change the prompts on the worksheets so that the students have to match up the body part after given a type of food. (Example → broccoli helps the eyes).
 - Guided: Students will fill out the worksheet as a class while learning about each function of the food groups.
 - Limited Guidance: Students can fill out the worksheet in small groups of 2-3 after instruction has been given. Teacher will walk around the classroom assisting when necessary.
 - Independent: Students fill out the worksheet individually. Teacher will walk around the classroom assisting when necessary.
- Food Function Motion Game (*Look at attached instructions for more detailed game guidelines*)
- Have the class play a motion game to reinforce the functions of foods. **Stand up next to your desk. Remember how we filled out the worksheet that showed us what parts of the body go with certain foods? We're going to play a motion game. When I say a food group, I want you to do the motion that goes with that food. Let's review. Fruits have nutrients that keep our body and skin healthy; therefore, give your neighbor a high five. Vegetables have nutrients that keep our body and eyes healthy; therefore, pretend you are looking through binoculars. Dairy give us strong bones and teeth; therefore, give me your biggest smile! Meats and Beans help keep our muscles strong; therefore, flex those muscles! Oils give our body cushion; therefore, pat your rear. Okay, let's review the motions again.** (Go through each of the food groups and do the motions along with the students). Play the game for however long the teacher feels is appropriate. **Alright. I'm going to say the food group, and you guys will have to do the motions.**
 - Planned Differentiation: Game can be adapted to make it more or less challenging by the speed of the game, and the order of the food groups. The game can be competitive by eliminating students if they do the wrong motion. Change the prompts for the students, say a food item that correlates with the function, and they have to do the motion. (Example → Broccoli is a vegetable; therefore the students would pretend they are looking through binoculars).
 - Guided: Students participate in doing the motions in unison, not worrying about speed. Teacher may need to demonstrate the motion and prompt

if necessary for the student to participate. Teacher will remind the class of the function of the foods.

- Limited Guidance: Students participate in doing the motions by themselves. Teacher may verbally prompt what motion the student is to be doing.
 - Independent: Student will participate in activity completely by themselves without any form of teacher prompting.
- Food Toss Game (*Look at attached instructions for more detailed game guidelines*)
 - **There are lots of different food items that belong to each food group. We're going to play a game in which you will match the food up with what food group it belongs to. On each beanbag, there is a picture of a food item. On the ground there are five baskets. You will toss the beanbag with the food item into the basket with the right food group.** Teacher demonstrates. **This beanbag has a picture of ham on it. Ham belongs to the meat and beans food group, so I'm going to toss it into that food group basket.**
 - Planned Differentiation: Change what is on the bean bag (pictures, words, pictures and words, etc). Have the number of beanbags that a student throw vary depending on time. Break the class up into teams, and have them work together to decide which basket to toss the bean bags. Make the game a race.
 - Guided: Teacher will help students determine which basket the beanbag is to be tossed.
 - Limited Guidance: Students will select a beanbag and determine which basket it goes in, with teacher prompting (Example → Telling students certain clues about the food, reminding them of the function, etc). The teacher will help the student if they toss the beanbag into the wrong basket.
 - Independent: Student will select a food item beanbag and determine which basket and food group it goes in. If they toss the food item into the wrong basket, the student will keep trying until they toss it in the correct basket with encouragement from the teacher.
- Conclusion
 - **Today we talked about the different food groups. Who can tell me the different food groups? What are the functions of each food group? Who can give me some examples of the different food items found in each food group?** Call on students to

answer the questions. Then ask them if they have any more questions regarding what they have learned before concluding the lesson.

- Curriculum Connections

- Mathematics

- Numbers & Operations:

- Have students count how many foods they've tossed into each food group basket.**

- *Understand numbers, ways of representing numbers, relationships among numbers, and number systems.*

- Have students add more or take away foods to a basket to work on addition and subtraction.**

- *Understand meanings of operations and how they relate to one another.*
 - *Compute fluently and make reasonable estimates.*

- Measurement

- Portions: Include a section introducing how much a serving size is. Have measuring cups and foods (real or model) to help students visualize how much they should be eating a day. You may want to focus on one food group at a time. For example, discuss fruits: how much is a serving of fruit- cut up peaches, orange juice, apple sauce, blueberries, etc.**

- *Understand measurable attributes of objects and the units, systems, and process of measurement.*
 - *Apply appropriate techniques, tools, and formulas to determine measurements.*

- Finance

- Include example prices for all of the foods. Each student will be given a set amount of money to make a complete healthy meal.**

- *Understand measurable attributes of objects and the units, systems, and process of measurement.*
 - *Solve problems that arise in mathematics and in other contexts.*
 - *Apply and adapt a variety of appropriate strategies to solve problems.*

- Opportunity Cost: The prices of their favorite foods may cost more than alternatives that they don't enjoy as much. They need to make a healthy, balanced meal while making decisions such as buying their favorite foods that are more expensive instead of cheaper foods they don't enjoy as much.**

- *Understand measurable attributes of objects and the units, systems, and process of measurement.*
- *Solve problems that arise in mathematics and in other contexts.*
- *Apply and adapt a variety of appropriate strategies to solve problems.*
- *Recognize and apply mathematics in contexts outside of mathematics.*

○ English

▪ Reading

Read the worksheet. Have each food item labeled (next to the pictures and artificial foods, labeled beanbags, etc). Allow the student to place the food in the correct group only after reading the name of the food and the food group it belongs to.

- *Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment.*
- *Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).*

▪ Writing/Spelling

Write the answers on the worksheet. Have the students make up the labels for the food groups as well as the foods. As an introductory activity, have students write down on paper their favorite foods, and their favorite fruit and vegetables, etc. During the class discussion, let them write what foods they mention on the board.

- *Students adjust their use of spoken written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.*
- *Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts.*
- *Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).*

- Life Skills
 - Grocery Shopping → A field trip to the actual grocery store would be beneficial, but making a mock grocery store in the classroom will work. Different topics such as: fresh versus frozen/canned foods (cost and food spoilage), how to choose good produce, price comparisons, etc. can be discussed.
 - Food Preparation → After discussion of the food pyramid and food groups, students can make a healthy recipe. This may be a healthy alternative to a class favorite food, an all-in-one complete meal, or more about preparing specific foods. Following a recipe is a great way to work on math skills, measurement, as well as working as a team. Each student can be given a set task to complete and together they will make a food they can all enjoy.

Food Toss Game Instructions

Objective: Students will identify common food items that belong with each food group.

Materials:

- 24 beanbags- 4 for each food group. Each beanbag has one picture of a food item from the specific food group.
 - 4 Meats and Beans beanbags (ham, chicken, eggs, beans,)
 - 4 Grains beanbags (rice, pasta, , cereal, bread)
 - 4 Fruits beanbags (apples, grapes, peach, banana)
 - 4 Vegetables beanbags (celery, red bell pepper, broccoli, carrots)
 - 4 Dairy beanbags (cottage cheese, milk, yogurt, string cheese)
 - 4 Oils beanbags (butter, mayonnaise, cake, cookies)
- 1 Set of four Food Group Signs
- 6 baskets

Setup: Set up Food Toss by placing the four boxes or chairs in a line. Attach one food group sign to each box or chair.

Play the game:

There are lots of foods in each food group. Each basket has a sign showing a food group (*Read the posters aloud to the students.* Explain to the students that they will be handed one beanbag at a time and can either throw it or go place it in the basket that the food item goes with. **Look at the picture of the food item on the beanbag. Then toss or place the beanbag into the basket that shows which food group the item belongs in.** Demonstrate for the students. **Apples are a fruit, so if I picked up a beanbag with a picture of an apple on it I would throw it in the fruit and vegetable basket.** Hand the student one beanbag at a time. If the student is having a hard time deciding which food group the food item goes in, give them some clues about the food (such as the food functions). After the athlete tosses all of the beanbags into the basket go through where they placed each food item and remind them of the benefit of that specific food item:

- Meats and Beans –help build strong muscles
- Grains – give you energy
- Fruits/Vegetables – have nutrients that keep you health
- Dairy – makes your bones strong.

If the student tosses the beanbag in the wrong basket, correct them and give them more examples of food items they may find in this food group.

Food Function Motion Game Instructions

Objective: Students will demonstrate that they know the functions of each food group through correct correlation of food groups and body parts.

Materials: None

Setup: Have the students stand up and have enough space in between them to do the motions.

Play the game:

Stand up next to your desk. Remember how we filled out the worksheet that showed us what parts of the body that we can associate with the functions of the different food groups? We're going to play a motion game. When I say a food group, I want you to think of the food groups function and do the motion that will help remind us of that function. Let's review. Fruits have nutrients that keep our body and skin healthy; therefore, give your neighbor a high five. Vegetables have nutrients that keep our body and eyes healthy; therefore, pretend you are looking through binoculars. Dairy give us strong bones and teeth; therefore, give me your biggest smile! Meats and Beans help keep our muscles strong; therefore, flex those muscles! Grains gives our body energy to run and play; therefore, run in place. Oils give our body cushion; therefore, pat your rear. Okay, let's review the motions again. (Go through each of the food groups and do the motions along with the students).

Play this game for however long the teacher feels is necessary. The teacher can change the order that they say the food groups, or make the game more difficult by saying a food rather than the food group. **Broccoli!** (Students will pretend they are looking through binoculars). Teachers can also make this game more of a competition by making it an elimination game. The teacher can say food groups or foods faster and the students have to keep up with the correct motions. If they do the wrong motion, they are eliminated.

To make this game more fun/difficult, teacher could have cards that they randomly select that decide the next movement.

Food Functions and possible correlating foods:

- **Fruits:** have nutrients that keep our body and skin healthy → apples, pears, bananas, strawberries, cantaloupe
- **Vegetables:** have nutrients that keep our body and eyes healthy → carrots, tomatoes, lettuce, radishes, cauliflower
- **Grains:** give our body energy to run and play → pasta, rice, crackers, pretzels, oatmeal

- **Meats and Beans:** keep our muscles strong → kidney beans, chicken, turkey, pork, lentils
- **Dairy:** give us strong bones and teeth → sliced, yogurt, milk, cottage cheese, string cheese
- **Oils and Fat:** give our body cushion → salad dressing, butter, cookies, cake, pie

Worksheet Answer Key

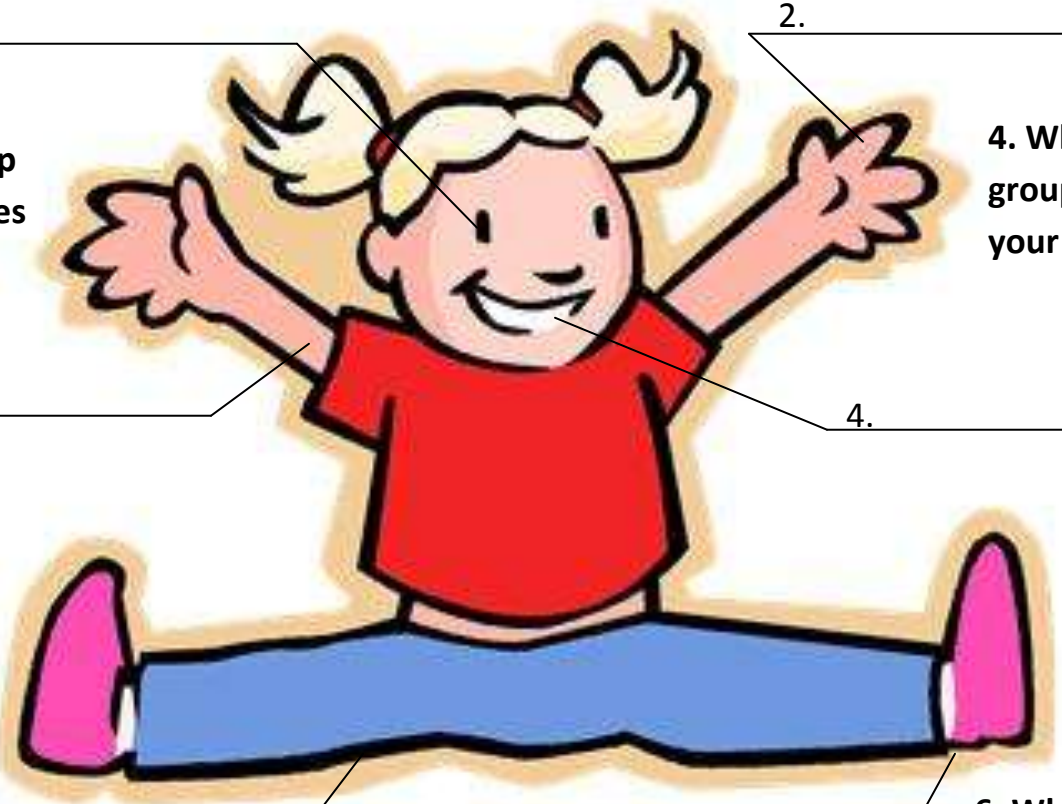
<p>Worksheets: 1A, B 2A, B</p>	<ol style="list-style-type: none"> 1. Vegetables 2. Fruits 3. Meats and Beans 4. Dairy 5. Oils and Fats 6. Grains
<p>Worksheets: 3A, B 4 A,B</p>	<ol style="list-style-type: none"> 1. Broccoli 2. Apples 3. Chicken 4. Milk 5. Salad Dressing 6. Bread

Name: _____

Date: _____

Directions: Using the word bank, find the food group that helps each part of the body.

1. What food group keeps your eyes healthy? 2. What food group keeps your skin healthy?



1. _____

2. _____

3. What food group makes your muscles strong?

4. What food group helps keep your teeth strong?

3. _____

4. _____

5. What food group gives your body cushion?

6. What food group gives you energy to run?

5. _____

6. _____

WORD BANK:

Dairy

Oils and Fats

Fruits

Grains

Vegetables

Meats and Beans

Name: _____

Date: _____

Directions: Using the word bank, find the food group that helps each part of the body.

1. What food group keeps your eyes healthy?

1. _____

2. What food group helps keep your teeth strong?

2. _____

3. What food group keeps your skin healthy?

3. _____

4. What food group makes your muscles strong?

4. _____

5. What food group gives you energy to run?

5. _____

6. What food group gives your body cushion?

6. _____



WORD BANK:

Dairy

Oils and Fats

Fruits

Grains

Vegetables

Meats and Beans

Name: _____

Date: _____

Directions: Fill in the line with the food group that helps each part of the body.

2. What food group keeps your eyes healthy? 2. What food group keeps your skin healthy?

1. _____

2. _____

3. What food group makes your muscles strong?

4. What food group helps to keep your teeth strong?

3. _____

4. _____

5. What food group gives your body cushion?

6. What food group gives you energy to run?

5. _____

6. _____

Name: _____

Date: _____

Directions: Fill in the line with the food group that helps each part of the body.

2. What food group keeps your eyes healthy?

1. _____

2. What food group helps keep your teeth strong?

2. _____

3. What food group keeps your skin healthy?

3. _____

4. What food group makes your muscles strong?

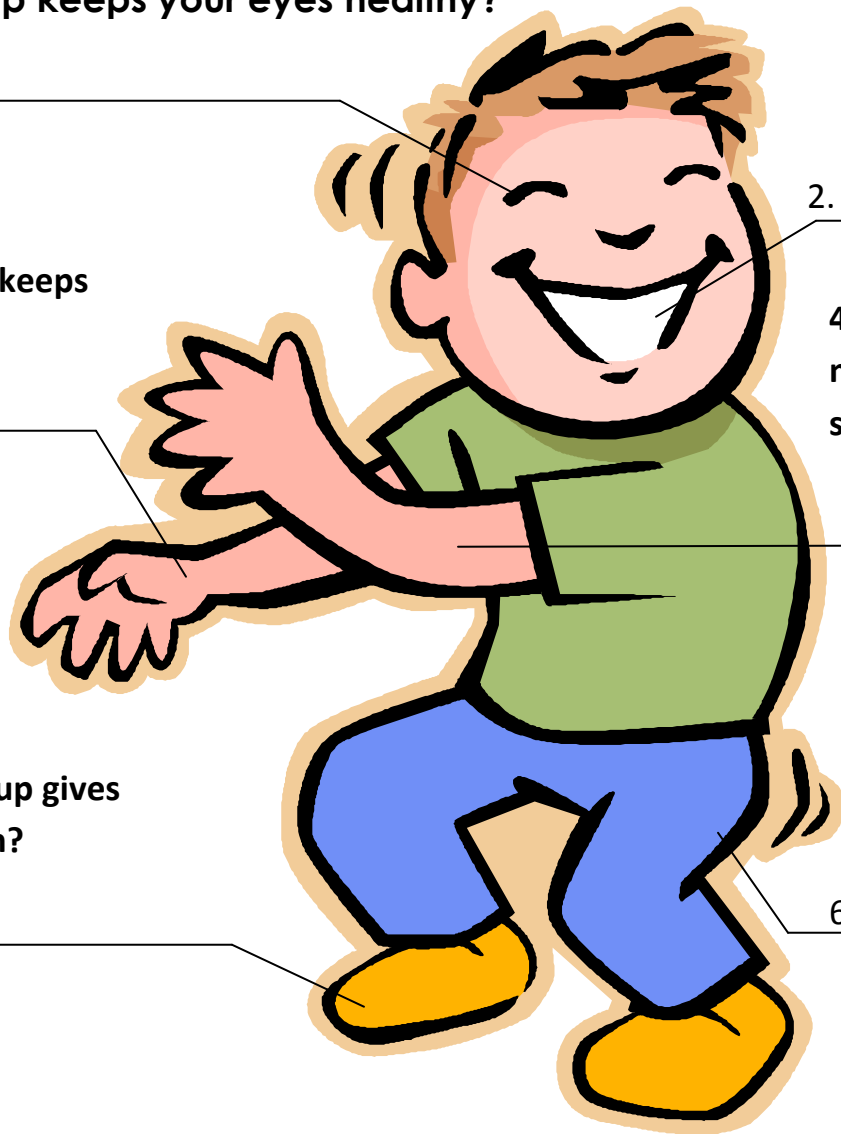
4. _____

5. What food group gives you energy to run?

5. _____

6. What food group gives your body cushion?

6. _____



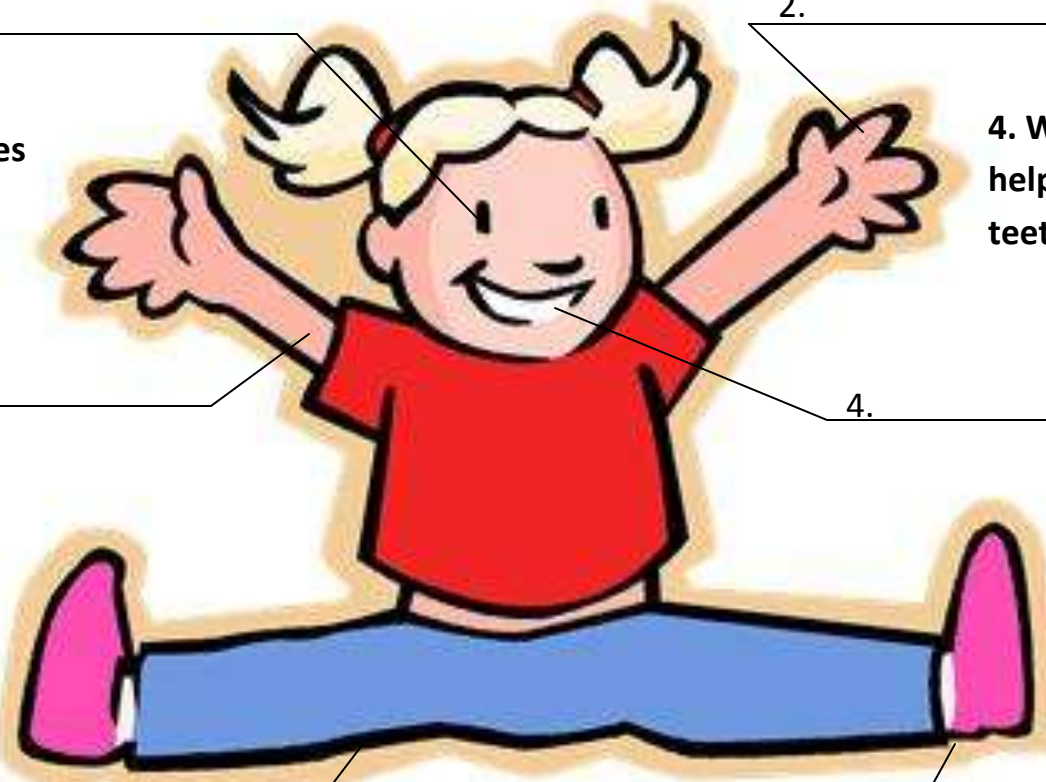
Name: _____

Date: _____

Directions: Using the word bank, find the food that helps each part of the body.

3. What food keeps your eyes healthy?

2. What food keeps your skin healthy?



1. _____

2. _____

3. What food makes your muscles strong?

3. _____

4. _____

4. What food helps to keep your teeth strong?

5. _____

5. What food gives your body cushion?

5. _____

6. _____

6. What food gives you energy to run?

WORD BANK:		
Milk	Salad Dressing	Apple
Bread	Broccoli	Chicken

Name: _____

Date: _____

Directions: Using the word bank, find the food that helps each part of the body.

3. What food keeps your eyes healthy?

1. _____

2. What food helps keep your teeth strong?

2. _____

3. What food keeps your skin healthy?

3. _____

4. What food makes your muscles strong?

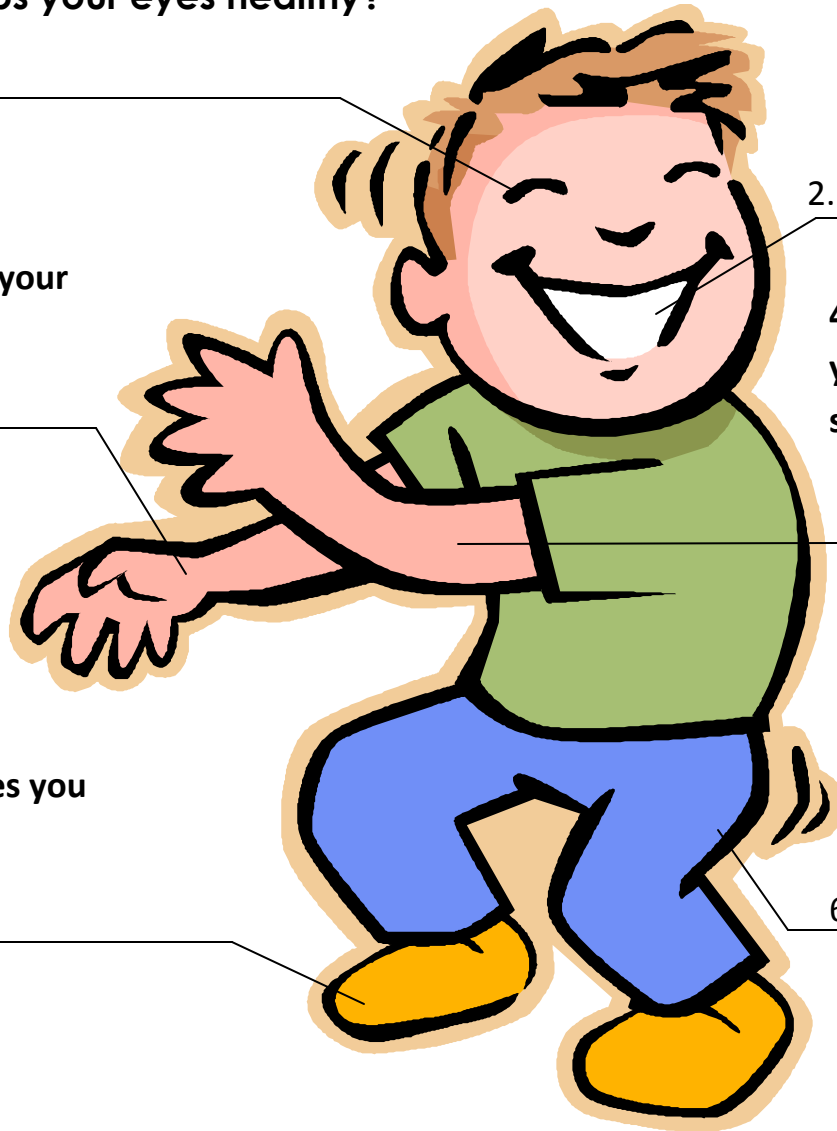
4. _____

5. What food gives you energy to run?

5. _____

6. What food gives your body cushion?

6. _____



WORD BANK:

Milk

Salad Dressing

Apple

Bread

Broccoli

Chicken

Name: _____

Date: _____

Directions: Fill in the line with a food that helps each part of the body.

4. What food keeps your eyes healthy?

2. What food keeps your skin healthy?

1. _____

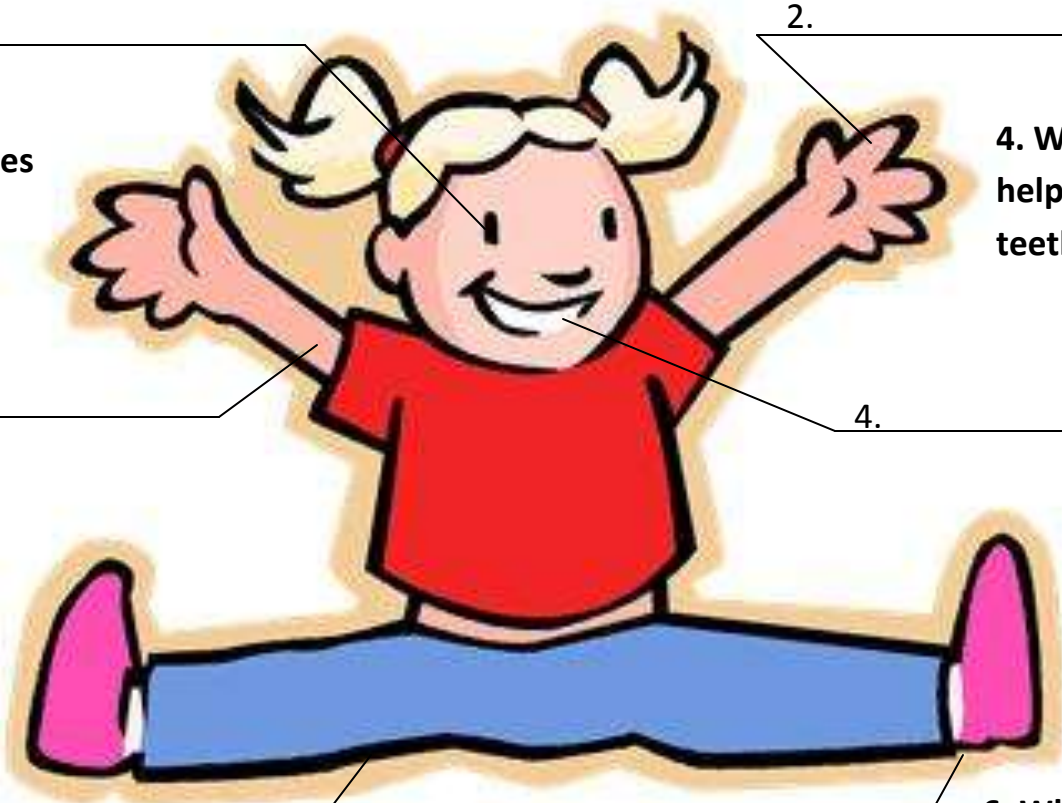
2. _____

3. What food makes your muscles strong?

4. What food helps to keep your teeth strong?

3. _____

4. _____



5. What food gives your body cushion?

6. What food gives you energy to run?

5. _____

6. _____

Name: _____

Date: _____

Directions: Fill in the line with a food that helps each part of the body.

4. What food keeps your eyes healthy?

1. _____

2. What food helps keep your teeth strong?

2. _____

3. What food keeps your skin healthy?

3. _____

4. What food makes your muscles strong?

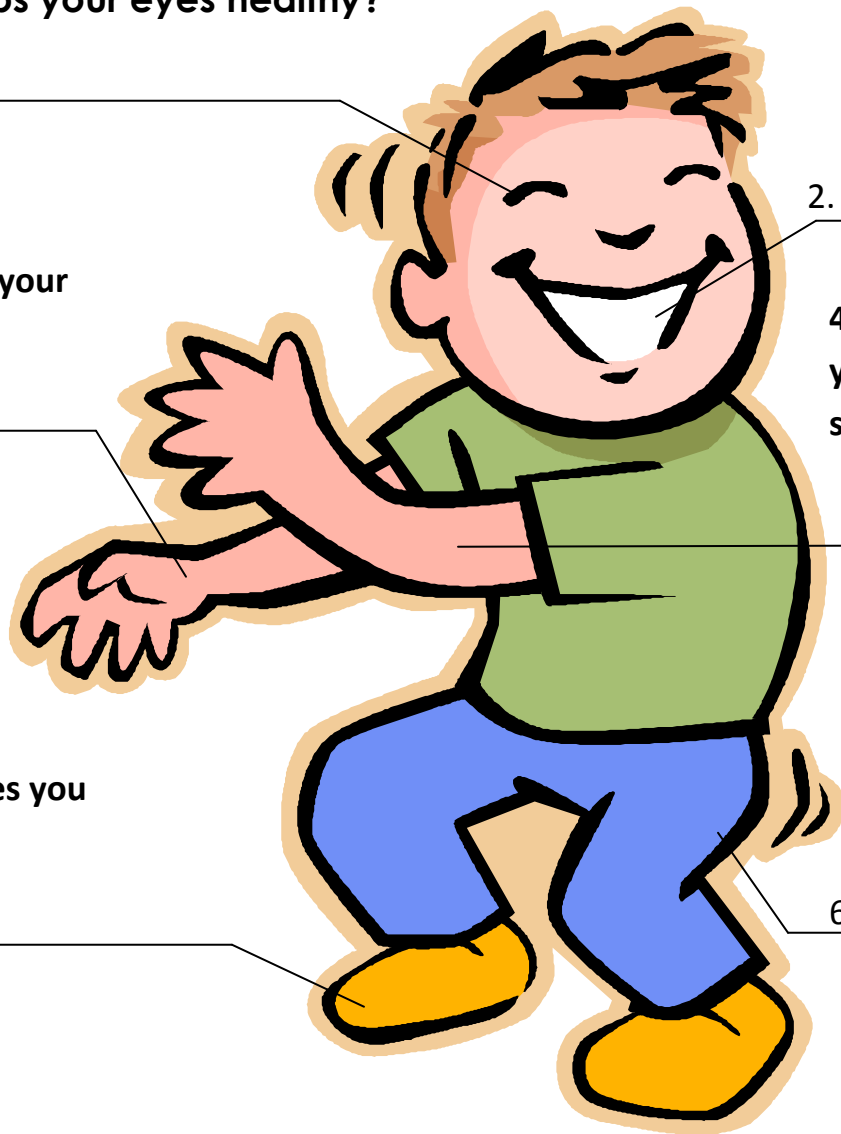
4. _____

5. What food gives you energy to run?

5. _____

6. What food gives your body cushion?

6. _____



Balance Your Plate Lesson Plan TRAIN @ School

Objectives

- Know which colors on the food plate correspond with each food group
- Make a healthy, balanced plate through a relay game

Outline

- Introduction :
 - Read a children's book about food
 - Review the functions of the food groups
- Instruction:
 - Discuss what a healthy, balanced plate look likes
 - Make a sample of a healthy, balanced plate
- Activity:
 - Color a balanced plate
 - Make a balanced, healthy plate through a relay game



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Supplies

Time: 15-60 minutes

Materials:
Artificial food /pictures of food, coloring supplies, paper plates, children's book, transparency

Resources:

Special Olympics Website : <http://www.specialolympics.org/>
TRAIN SO Website: <http://trainso.blogspot.com>

Balance Your Plate

- Time: 15-60 minutes
- Materials: Artificial foods (or pictures of foods), paper plates, coloring supplies (green, orange, blue, red), transparency (or SmartBoard) and writing tools, children's book
- Objectives:
 - Students will verbally state which color on the food plate corresponds with each food group.
 - Students will make a balanced plate, with a food item from each food group, through participating in a relay game.
- Introduction
 - Read a children's book that covers the topic of food.
 - Introduce the topic of a healthy, balance plate by reading a kids book that encourages eating a healthy meal such as *D.W. the Picky Eater* (Marc Brown), *Gregory the Terrible Eater* (Mitchell Sharmat), or *The Very Hungry Caterpillar* (Eric Carle). (These books are just suggestions; teachers can do their own research to find a book that covers the topic of healthy eating. Books will vary based on target audience for lesson.)
We're going to read (*title of the book*). This is a story about food, and the importance of eating healthy. After we read the story, we're going to talk about what some of your favorite meals to eat are.
If you have older students you may want to find an article dealing with food or show a video clip of cooking.
 - Discussion of some favorite meals.
One of my favorite meals to eat is lasagna and salad, what are some of your favorite meals?
- Instruction
 - Discuss the need to eat different food groups at each meal.
 - **Our body needs many nutrients to be healthy. The best way to get all the nutrients is to eat foods from various food groups at each meal. Focusing on eating foods from three different food groups at each meal is a way to have a balanced diet. Remember there are five different food groups. Fruits and vegetables have nutrients that keep your body healthy. Grains give your body energy. Meats and beans keep your muscles strong. Dairy gives you strong bones and teeth. Oils and fats are okay in small amounts, they give your body cushion.** Write the names of the food groups on the board as you list them.

Let's talk about some foods from different food groups that we like to eat for breakfast. One of my favorite breakfast foods is eggs, and it belongs to the meats and beans group. Write eggs near the meats and beans food group on the board. **Can you tell me some of your favorite breakfast foods?** Write the food the students say on the board near the food group it belongs to or have the students write the food item on the board themselves. Repeat this exercise for lunch and dinner if time allows.

- Introduce the balanced plate tool to the class.
 - **Now that we have talked about some of our favorite foods, and what food groups they belong too we are going to talk about a tool we can use at meal time to remind us that we need many food groups at each meal. A plate can be easily split up into three sections.** Provide the students with a visual representation of what their plate should look like. Teacher draws a circle that will represent a plate. (This can be done on a transparency, SmartBoard, or on a paper plate). Draw a line in the middle of the plate, and then divide one of the halves into half again. **These sections represent different food groups.**
 - **The biggest section, which takes up $\frac{1}{2}$ the plate, is for fruits and vegetables. This section on the plate is the color green.** Color this section green and label it "fruits and vegetables" while you talk about it. **Fruits and vegetables take up the most room on our plate because they have many healthy nutrients that we need each day. They are also combined in one section because we don't have to eat a fruit and a vegetable at each meal. For example, I like vegetables but I don't like eating them for breakfast, so I usually eat a little more fruit instead.**
 - Fruit and Vegetable tip: **Fruit also makes a delicious desert!**
 - **One of the smaller sections, which take up $\frac{1}{4}$ of the plate, is for grains. This section on the plate is the color orange.** Color this section orange and label it "grains" while you talk about it. **Grains are very important to have in our diet because they give us energy to be able to concentrate in school and play sports.**
 - Grain tip: **Whole grains are better for us than white grains because they have more nutrients in them!**
 - **The last section, which takes up $\frac{1}{4}$ of the plate, is for meats and beans. This section on the plate is the color red.** Color this section red and label it "meats and beans" while you talk about it. **Meats and beans are important to eat because they make our body and muscles strong.**
 - Meats and beans tip: **Eat a variety of meats and beans such as chicken, fish, ham, and eggs.**

- **The last food group is Dairy. Dairy will be shown on our plate by drawing a circle directly in the center, which goes through the other food groups. Draw the circle, color it blue, and label it “dairy” while you talk. Dairy is shown in the middle of our plate because it can be easily added to other food groups, for example I like to add cheese to my eggs. It is a circle to remind us that we can also get a dairy serving from milk that we may drink with our meal.**
 - Dairy tip: **Milk, cheese, cottage cheese, and yogurt are all great ways to include dairy in your meal.**
- Make a few sample plate as a class

Remember that it is important to make sure that your meal plates are balanced. Do we have each food group represented in our meal? Let’s make a few sample plates. Let’s make a breakfast, lunch, and dinner plate using the artificial (picture cut outs of) food that we have here. They should then visually represent it by placing artificial food or food pictures in the corresponding areas on the plate. Good job, that looks good. Look at the plate we made as a class. Is our plate balanced?

Do we have each food group represented?
 Go through each food section, and verbally say, and point to each picture. **We have toast which represents grains, we have an egg, which represents meats and beans, we have yogurt, which represents dairy, and we have some fresh fruit to eat. I think that this plate is a healthy, balanced meal. Be sure to point out that two food items will go in the fruits and vegetables section, since it takes up half the plate.** Continue on to make a sample plate for lunch and dinner as well.



- Activity
 - Color a balanced plate.
 - While discussing with students what a healthy, balanced plate looks like, have the students make their own balanced plate tool. They will color in a paper plate, dividing it into sections, and labeling the sections to correspond with each food group. Be sure to have paper plates and orange, red, green, and blue colors available for the students.
 - Planned Differentiation: This fun activity can be modified so that the students will do more or less of making their balanced plate tool. They could just be coloring an already labeled plate, or they could be responsible for drawing the lines and coloring. Students can work individually or the

teacher can have them all work together. The plate can be made at the same time as the teacher is making theirs in front of the class, or after the lesson as a form of an assessment.

- Guided: Students will make their individual plates as a class, while learning about each section together. Teacher will help the students make the plates (already having some premade) so that they just have to color in the sections.
 - Limited Guidance: Students will make the plates with teacher supervision during the lesson, drawing the lines and coloring the plate.
 - Independent: After the lesson, students will make the entire balanced plate independently. Teacher will walk around supervising and asking questions when necessary.
- Make a Balanced Plate Relay (*Look at attached instructions for more detailed game guidelines*)
 - **There are lots of different food items that you could eat on a regular. Earlier, we made a sample breakfast, lunch, and dinner plate. I want to see how well you guys are at making plates. We're going to play a game where we make meal plates, in a relay style game. The objective of this game is to make a healthy, balanced plate. You will need to find five food items and place them in the correct spot on the plate. Remember to do your best. At the front of the room, are various pictures, I want one person from each team to come up for each food group and pick an item to put in the correct spot on your plate.**
 - Planned Differentiation: This game can be differentiated many ways. The teacher can divide the teams in whatever way they want, along with setting up the game however they would like. The teacher can use picture of food, or they can use artificial food. Teachers can choose to time this game, or just observe effort.
 - Guided: Teacher will help students determine which food items belong to each food group, and where they belong on the plate.
 - Limited Guidance: Students will select which food item and determine where it goes with teacher prompting. (Example → Telling students certain clues about the food, reminding them of the functions, etc). The teacher will help the student if they place the food item in the wrong section on the plate.
 - Independent: Students will select a food item that goes with the food group announced and determine where on the plate it belongs independently.
- Conclusion

- After the relay game is complete, wrap up the lesson. **We just learned about what a healthy balanced meal looks like. Can someone tell me what food groups are on a healthy balanced plate? What color goes with each food group on the plate? How much of your plate should each section cover?** Call on students to answer questions. Then ask them if they have any more questions regarding this subject before the end of the lesson.

- Curriculum Connections
 - Mathematics
 - Numbers & Operations:
 - Have students count how many foods they have on their plates.**
 - *Understand numbers, ways of representing numbers, relationships among numbers, and number systems.*
 - Have students add more or take away foods from their plates to practice addition and subtraction.**
 - *Understand meanings of operations and how they relate to one another.*
 - *Compute fluently and make reasonable estimates.*
 - Fractions
 - Work on fractions by dividing the plate up by $\frac{1}{2}$, and then by $\frac{1}{4}$.**
 - *Understand measurable attributes of objects and the units, systems, and process of measurement.*
 - *Apply appropriate techniques, tools, and formulas to determine measurements.*
 - Finance
 - Include example prices for all of the foods. Each student will be given a set amount of money to make a complete healthy meal.**
 - *Understand measurable attributes of objects and the units, systems, and process of measurement.*
 - *Solve problems that arise in mathematics and in other contexts.*
 - *Apply and adapt a variety of appropriate strategies to solve problems.*
 - Opportunity Cost: The prices of their favorite foods may cost more than alternatives that they don't enjoy as much. They need to make a healthy, balanced meal while making decisions such as buying their favorite foods that are more expensive instead of cheaper foods they don't enjoy as much.**

- *Understand measurable attributes of objects and the units, systems, and process of measurement.*
- *Solve problems that arise in mathematics and in other contexts.*
- *Apply and adapt a variety of appropriate strategies to solve problems.*
- *Recognize and apply mathematics in contexts outside of mathematics.*

○ English

▪ Reading

Label the plate and all the food items; have the students read the labels. Have each food item labeled (next to the pictures and artificial foods labeled). Allow the student to place the food in the correct section on their plate only after reading the name of the food and the food group it belongs to.

- *Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment.*
- *Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).*

▪ Writing/Spelling

Have the students make up the labels for the food groups as well as the foods. As an introductory activity, have students write down on paper their favorite foods, and their favorite fruit and vegetables, etc. During the class discussion, let them write what foods they mention on the board.

- *Students adjust their use of spoken written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.*
- *Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts.*

- *Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).*
- Life Skills
 - Grocery Shopping → A field trip to the actual grocery store would be beneficial, but making a mock grocery store in the classroom will work. Different topics such as: fresh versus frozen/canned foods (cost and food spoilage), how to choose good produce, price comparisons, etc. can be discussed.
 - Food Preparation → After discussion of the food pyramid and food groups, students can make a healthy recipe. This may be a healthy alternative to a class favorite food, an all-in-one complete meal, or more about preparing specific foods. Following a recipe is a great way to work on math skills, measurement, as well as working as a team. Each student can be given a set task to complete and together they will make a food they can all enjoy.

Balanced Plate Relay Instructions

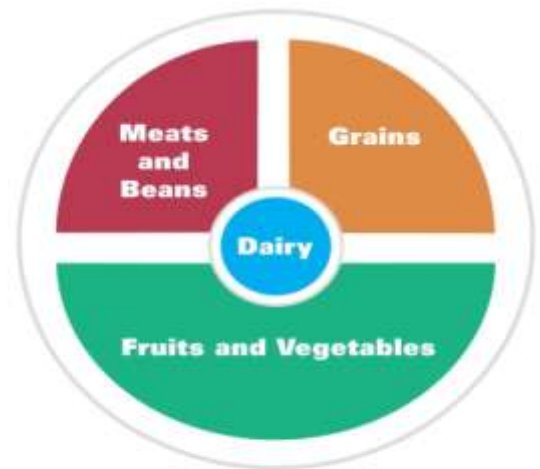
Objective: Students will identify which foods belong with individual each food group, and where they belong on the plate in order to make a healthy, balanced plate.

Materials: Artificial food, food plates, food pictures

Setup: Teacher arranges food items in the front of the classroom how they want (mixed, or divided by food groups). Students use the food plates that they have made.

Play the game:

Divide the class up in any way that the teacher sees fit. Have the students come up to the front and to pick the food item for their plate and rush back to their group to make put onto the portion plate. **There are lots of foods in each food group. You are going to work together as a team to see if you can make a healthy balanced plate. You will each get to come up and pick a food item (either the teacher says which food group, or they have to be responsible themselves to make sure they represent each food group) and go back to your team and put it in the correct spot on the plate.** Demonstrate for the students. **“Fruits” was called out. I go to the table and see that an apple is a fruit, so if I picked up the apple and rush back to my table. I will work with my teammates to put the apple on the fruits and vegetables section of the plate.** If the student is having a hard time deciding which food group the food item goes in, give them some clues about the food (such as the food functions). This game can go on as long as the teacher wants. The rules can be changed, and they can work individually or as teams.



Balanced Plate

Healthy Snacking Lesson Plan TRAIN @ School

Objectives

- Know why people snack, and the healthy benefits of snacking
- Pick out healthy snacks

Outline

- Introduction :
 - Discuss snacking
 - Read a children's book about food
 - List favorite snacks
- Instruction:
 - Why do we snack?
 - Unhealthy snacking
 - Healthy snacking
- Activity:
 - Snack the ABC's game
 - Healthy snack recipe
 - Make a healthy snack



Special Olympics

TRAIN
SO

Supplies

Time: 15-60 minutes

Materials:
Snack items, recipe cards, coloring supplies, children's book

Resources:

Special Olympics Website : <http://www.specialolympics.org/>
TRAIN SO Website: <http://trainso.blogspot.com>

Healthy Snacking

- Time: 15-60 minutes
- Materials: snack items, recipe cards, coloring supplies, pens/pencils, children's book, list of recipes students can choose from
- Objectives:
 - Students will verbally state why people tend to snack, and what it does for their body.
 - Given the opportunity, students will be able to pick out healthy snacks 3 out of 5 consecutive opportunities.
- Introduction to Lesson
 - Lead a class discussion about snacking
 - **How many of you tend to get hungry during the day, in between meals? What do you do about it? Many of us tend to get snacks, in hopes that will help us feel a bit better. Snacking in between meals is a good way to keep your energy up.**
 - Read a children's book about snacking.
 - Books such as *Too Much Junk Food* (Stan and Jan Bernstein), *Popcorn Book* (Tomie dePaola) and *If You Give a Mouse a Cookie* (Laura Joffe Numeroff) are all about different common snacks. (These books are just suggestions; teachers can do their own research to find a book that covers the topic of snacking. Books will vary based on target audience for lesson.)
We're going to read (*title of the book*). This is a story about snack foods. After we read the story, we're going to talk about snacking and what a healthy snack looks like!
 - *If you are working with older students, you may want to find an article that deals with healthy snacking such as "Smart Snacking for Adults and Teens" from a website such as <http://www.eatright.org>, and then lead a discussion after reading the article as a class or individually.*
 - Have them make a list of their favorite snacks.
 - **We all like to snack, write down on a sheet of paper three things that you like to eat as a snack.** Allow the students to share their list with the class.
- Instruction
 - Why do we snack?
 - **We know that we like to snack. But what is snacking, exactly? Snacking is when we eat small portions of food in between meals, like in the afternoon between lunch and dinner. Snacking helps our bodies out in**

many ways. Snacking helps keep up our energy throughout the day, which helps us focus at school without getting tired. We are also less likely to overeat during mealtime when we snack because we are not as hungry. When done properly, snacking is a very healthy habit.

- Unhealthy snacking
 - **When you hear the word snack, what kind of foods do you think of?** (Make a list of some of the food items they say on the board. Chances are that many of these items are going to be chips, candy, and soda.) **I noticed that a lot of snacks that were mentioned included items such as chips, candy, and soda.** (Point these items out on the board). **We usually want to eat foods such as these when we are bored or extremely hungry. These foods are okay to have on special occasions but they are high in calories and do not have nutrients that help our bodies.**
- Healthy Snacking
 - **Eating foods that have a lot of healthy nutrients in them is the best way to snack. Eating these foods in between meals will give us energy, healthy nutrients, and prevent us from wanting to overeat when meal time comes around. These foods can be easily found in the five food groups. Let's come up with healthy snacks from each one that we could eat throughout the day to replace things like chips, candy, and soda.**
 - **Grains give us energy. A snack that I like to eat is granola bars, which is a grain. Can anyone think of other grains we could eat as snacks?** (Write any examples they come up with on the board. Popcorn, dry cereal, and oatmeal are more examples of healthy snacks.)
 - **Fruits have nutrients that keep your body healthy. A snack I like to eat is strawberries, which is a fruit. Can anyone think of other fruits we could eat as snacks?** (Write any examples they come up with on the board. Apples, bananas, and oranges are more examples of healthy snacks.)
 - **Vegetables have nutrients that keep your body healthy. A snack I like to eat is carrots, which is a vegetable. Can anyone think of other vegetables we could eat as snacks?** (Write any examples they come up with on the board. Cherry tomatoes, cucumbers, and broccoli are more examples of healthy snacks.)
 - **Meats and beans help make our body and muscles strong. A snack I like to eat is hard boiled eggs. Can anyone think of other meats and beans we could eat as snacks?** (Write any examples

they come up with on the board. Refried beans, almonds, and peanuts all belong in the meats and beans group and are more examples of healthy snacks.)

- **Dairy helps keep your bones and teeth strong. A snack I like to eat is yogurt, which is in the dairy food group. Can anyone think of other dairy products we could eat as snacks?** (Write any examples they come up with on the board. Cottage cheese, string cheese, and chocolate milk are more examples of healthy snacks.)

- Activity

- Snack the ABCs Game (*Look at the more detailed instructions for more guidelines*)
 - **We have talked about why we snack, along with several examples of healthy snacks. Let's see if we can list some more healthy snacks. We're going to play the ABC's of Snacking. Let's go around the room and list a healthy snack that starts with each letter of the alphabet.** (You may want to exclude certain letters such as "U" and "X", or let the students be creative here).
 - Planned Differentiation: This game is very basic, and focuses on making sure that the students know the alphabet.
 - Guided: Teacher lead the game by prompting students about a healthy snack that starts with each letter of the alphabet by giving clues about a food.
 - Limited Guidance: Teacher prompts only when necessary, and there is a lull in the game.
 - Independent: Students play the game by listing off snacks without teaching prompting.
 - Healthy snack recipes (*Look at the more detailed instruction for guidelines*)
 - Have some preselected, healthy recipes that students can choose from. Read off and describe these healthy snacks, and then allow students to choose which one they like. When reading each recipe, review with the students what food groups are covered. They can then make a recipe card in class, which they can take home with them.
When choosing a snack, sometimes people want to pick more than one small item from various food groups to combine to make one healthy snack. I have in front of me several recipes that are healthy snacks. I want each of you to choose which recipe you would like to make at home, and you will get to make a recipe card to take home. Teacher will then read and describe the preselected recipes.

- Planned Differentiation: This activity can be modified in several different ways. Teachers can allow students to make create their own recipe cards from scratch, or have premade cards where students could fill in the blanks. If time allows, let the students decorate their recipe cards. Teacher may need to prompt and guide students during this activity.
 - Guided: Students could select a recipe card, in which they fill in the blanks. Teacher may help them create the recipe card step by step. Class could create one recipe card at a time as an entire class and then photocopy it for the students to take home.
 - Limited Guidance: Students make a fill in the blank recipe card with little teacher prompting.
 - Independent: Students make a recipe card completely by themselves. Teacher is available to answer any questions that the students may have.
 - Make a healthy snack
 - With teacher supervision and assistance, make a healthy snack as a class, and then eat it together. Teacher decides which snack is appropriate for their classroom. *Be sure to check with all parents and the school administration to make sure that this is appropriate, and allowed, for each specific school.*

We are going to make some trail mix as a class snack. I have these healthy foods that we will mix together in order to create one big snack. Be sure that all students have washed their hands with soap and water. Use gloves if necessary. Have all ingredients that are going to be added easily accessible and decide how it is going to be made. The teacher can make it, or allow students to each pour in an ingredient. **We are going to add pretzels, nuts, and raisins (*chocolate is optional*☺).** Now mix all the ingredients up, allow students to take turn mixing if desired. Then divide the trail mix into cups for the students to eat as a snack.
- Conclusion
 - While the students are eating their healthy snack, wrap up the lesson. **We just learned about healthy snacks. We snack because it helps us keep our energy up and focused on our school work. We learned that there are some snacks that we should only eat occasionally. Can someone name a few of those occasional snacks? Then we learned about several snacks that are extremely healthy for us. Can you guys remind me of some healthy snacks?** Call on students to answer questions. Then ask them if they have any more questions regarding this subject before the end of the lesson.

- Curriculum Connections
 - Mathematics
 - Numbers & Operations:

If the students are having a snack such as fruit, have them count how many strawberries they are eating. While making the recipe card, have the students number the steps of the recipe.

 - *Understand numbers, ways of representing numbers, relationships among numbers, and number systems.*
 - *Understand meanings of operations and how they relate to one another.*
 - *Compute fluently and make reasonable estimates.*
 - Measurement

Allow the students to measure out the ingredients for the snack, or let tell them how much has been premeasured out.

 - *Understand measurable attributes of objects and the units, systems, and process of measurement.*
 - *Apply appropriate techniques, tools, and formulas to determine measurements.*
 - Finance

Include example prices for snack items, and ingredients. Each student will be given a set amount of money to see how much their snack of choice would cost.

 - *Understand measurable attributes of objects and the units, systems, and process of measurement.*
 - *Solve problems that arise in mathematics and in other contexts.*
 - *Apply and adapt a variety of appropriate strategies to solve problems.*

Opportunity Cost: The prices of their favorite foods may cost more than alternatives that they don't enjoy as much. They need to make a healthy, balanced meal while making decisions such as buying their favorite foods that are more expensive instead of cheaper foods they don't enjoy as much.

 - *Understand measurable attributes of objects and the units, systems, and process of measurement.*
 - *Solve problems that arise in mathematics and in other contexts.*
 - *Apply and adapt a variety of appropriate strategies to solve problems.*
 - *Recognize and apply mathematics in contexts outside of mathematics.*
 - English

- Reading

Read food labels, recipe cards to the class, and any printed material. They may need teacher assistance.

- *Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment.*
- *Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).*

- Writing/Spelling

Have the students write on the recipe cards. Have the students make up the labels for the food groups as well as the foods. As an introductory activity, have students write down on paper their favorite snacks. During the class discussion, let them write what foods they mention on the board.

- *Students adjust their use of spoken written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.*
- *Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts.*
- *Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).*

- Life Skills

- Grocery Shopping → A field trip to the actual grocery store would be beneficial, but making a mock grocery store in the classroom will work. Different choose snack items, how to choose good produce, price comparisons, etc. can be discussed.
- Food Preparation → After discussion of food groups and snack items, students can make a healthy recipe. This may be a healthy alternative to a class favorite food, an all-in-one complete meal, or more about preparing specific foods. Following a recipe is a great way to work on math skills, measurement, as well as working as a team. Each student can be given a set task to complete and together they will make a food they can all enjoy.

Snacking the ABC's Instruction

Objective: Given proper instruction, students will be able to list off healthy snacks starting with various letters of the alphabet.

Materials: Artificial food/ pictures of food (optional)

Setup: None

Play the game:

There are lots of healthy snacks that we can eat. We've talked about some of them in class today. Let's see if we can think of some of our favorite healthy snacks by using the alphabet. We are going to start with the letter A and go all the way to Z! Teacher can decide how they want to play this game. They may want to call on specific students or they may play popcorn style. Allow students to be creative in their answers (especially for X and U). Teachers may want to discuss each snack; if they have pictures or artificial food, they could use those as visual representations of health snacks. This game can easily be incorporated into the other activities. Be sure that the snacks that are said are considered "healthy." Teacher uses their judgment. At the end of the game, review the point of the game. **We just listed off lots of delicious, healthy snacks. Snacking, in small amounts is a good way to add nutrients to our body and keep our energy up so that we can do a good our best in school.**

List of snacks that start with each letter of the alphabet: *(There are several snacks; these are just some options, teacher uses judgment to decide what is appropriate.)*

A - apple (w/ peanut butter)	J - jello	S - string cheese
B - banana smoothie	K - kiwi	T - trail mix
C - carrots (w/ low fat ranch)	L - lemon poppy seed muffin	U - ugli fruit
D - dried fruit	M - mango	V - vegetables
E - egg, hard boiled	N - nuts	W - watermelon
F - frozen yogurt (w/ fruit topping)	O - orange	X - X-men fruit snacks*
G - graham crackers	P - pretzel	Y - yogurt
H - hummus (dip for veggies)	Q - quesadilla (w/ cheese)	Z - zoo animal crackers
I - ice juice pops	R - raspberries	

Healthy Snack Recipe Instructions

Objective: Students will make their own recipe card to take home with them that has a healthy snack. This recipe will have more than one food group represented.

Materials: recipe cards, coloring supplies, preselected recipes

Setup: Allow students to make the recipe cards at their desk or designated spot

Make the recipe cards:

We've talked about healthy snacks. Sometimes the snacks we want require a few different ingredients. These ingredients can be found in different food groups. In front of me, I have three different healthy snack recipes: ants on a log, pudding cup dip, and salsa wrap. Teacher will then describe each of the recipes. (Example →Ants on a log has celery, peanut butter, and raisins. Celery is a vegetable; vegetables have nutrients that keep your body healthy. Peanut butter is part of the meats and beans category, it will help keep your muscles strong. Raisins are a fruit; fruits also have nutrients that keep your body healthy. With help, cut the celery stick into small sections. Spread a little bit of peanut butter onto each section. Place raisins on the peanut butter. Eat and enjoy 😊). I want each of you to pick a recipe that you would want to try at home, and you are going to make recipe card. It's important to have healthy snacks each day because they will help you perform better in school. Be sure to decorate your recipe card!

Recipe choices: *(Teachers are more than welcome to find their own recipes that they want to use with their class. These are just some suggestions).*

<p> pudding Cup:</p> <ul style="list-style-type: none"> - 4 ounces of fat free vanilla pudding (Dairy) - ½ cup of fresh fruit (fruit) - 5 vanilla wafers (grain) <p>Mix pudding and fruit. Crumple wafers, put on top, and enjoy.</p>	<p>Ants on a log:</p> <ul style="list-style-type: none"> - 1 celery stick - 1 tbs of peanut butter - 4 raisins <p>Have parents cup up celery stick. Spread peanut butter onto them. Place raisins on top.</p>	<p>Salsa Burrito:</p> <ul style="list-style-type: none"> - 1 6-inch flour tortilla - ¼ cup of black beans - 2 tbs salsa <p>Put beans on tortilla and top with salsa. Roll up, and enjoy.</p>
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My Healthy Recipe! (Name of recipe)

Ingredients:

1. (List out ingredient) → (name which food group it belongs to)
2. (List out ingredient) → (name which food group it belongs to)
3. (List out ingredient) → (name which food group it belongs to)

How to make it!

1. (Put step on how to make the snack)
2. (Put step on how to make the snack)
3. (Put step on how to make the snack)
4. **Enjoy!**

Recipe Card

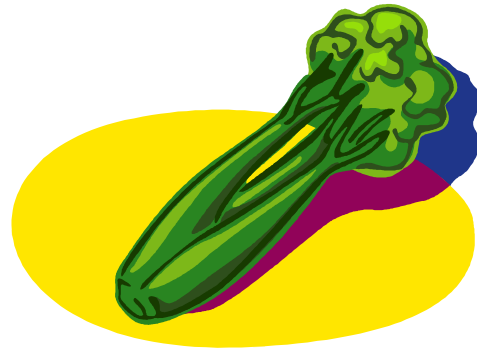
My Healthy Recipe! Ants on a Log

Ingredients:

1. 1 stick of celery → vegetable
2. 1 tbs of peanut butter → meats and beans
3. 4 raisins → fruit

How to make it!

1. With adult help, cut up celery
2. Spread peanut butter onto celery.
3. Place raisins onto peanut butter.
4. **Enjoy!**



Example

Teachers can alter, or make up their own recipe cards. If they want to make a fill in the blank recipe cards, they could leave out the key words such as the ingredients. Be sure that the students understand the assignment, and the fact that it is important to have healthy snacks, before they put their recipe away.

Hydration Lesson Plan TRAIN @ School

Objectives

- Know how much of the body is made up of water
- Know signs of dehydration

Outline

- Introduction :
 - Discuss the importance of hydration
- Instruction:
 - Where does water come from?
 - How much water we need a day
 - Water and Exercise
 - Sponge activity
 - What happens when we don't get enough water
- Activity:
 - Measuring water
 - Sugar activity
 - Water log



Special Olympics

TRAIN
SO

Supplies

Time: xx minutes
Materials:
Water, sponge, cup,
water bottles for
students, sugar cubes,
visual representation
of sugary drinks
(optional), glass,
measuring cup, clear
container

Resources:

Special Olympics Website : <http://www.specialolympics.org/>
TRAIN SO Website: <http://trainso.blogspot.com>

Hydration

- Time: 15-60 minutes
- Materials: Water, sponge, cup, water bottles for students, sugar cubes, visual representation of sugary drinks (optional), glass, measuring cup, clear container
- Objectives:
 - Students will verbally state how much of their body is made up of water.
 - Students will verbally state three signs of dehydration.
- Introduction
 - Introduce the topic of hydration to the students.
 - **Water is very important to our health, and it makes up a 70% of our bodies. This empty cup I have represents our bodies. I am going to pour water into the cup and I want you to tell me to stop when you have think that I have filled it up enough to show how much water our bodies are made out of.** (Fill up the cup a little at a time allowing students for them to tell you if that is how much water they think makes up our bodies. You want to fill the cup $\frac{3}{4}$ full because 70% is made up of water.)
 - **Over half of our body is made up of water! This was demonstrated with the cup. Water helps our body with many different things such as digesting our food and helping our brain and heart to function. If we don't drink enough water, we become dehydrated. When we are dehydrated we become tired, slow, and sick. We want to make sure we are drinking enough water each day to allow our body to work properly!**
- Instruction
 - Where do we get water from?
 - Explain to the students that we get water from what we drink. **Most of the water we get each day is from the beverages that we drink. The best way to make sure that our bodies are staying hydrated each day is to drink plenty of plain water. We do get some water when we drink soda and juice. However, soda and juice both have lots of extra sugar which is why we should not drink these very often. Water is always your best bet when trying to decide on a healthy beverage.**
 - **We also get some water from the food we eat each day. Fruits and vegetables both contain a significant amount of water which our body uses.**
 - How much water a day
 - **At some point we need to get rid of the old water in our bodies and replace it with fresh water. We get rid of the old water by breathing, sweating, and going to the bathroom.**

- **Trying to drink around 8 cups of water each day is a good goal to make. This way we know that we have replaced the water in our body and it will be able to work properly.**
 - Water and Exercise
 - **When I go hiking I make sure that I always have water with me. Can anyone think of other times when drinking water is very important?** (Write ideas the students come up with on the board. Some other times when it is important to drink water are while playing sports, playing outside, hot days.) **Those are all excellent times we need to drink more water!**
 - **It is very important to drink water during exercise. While we exercise our body sweats so our muscles can keep working properly and the rest of our body does not get too hot. Sweat is made up of mainly water, so our body loses a good amount of water while we exercise. Make sure that you are replacing that water by taking a break every 15-20 minutes while exercising to drink some water. If you are exercising for more than an hour it may be a good idea to drink some sports drink along with the water to keep your energy up.**
 - *This section of the lesson could include a small demonstration. Teacher gets a sponge wet (not dripping wet), and then passing it around the room, wringing it out at the end and see how much water is left. Then get the sponge wet again, and pass it around faster and faster. Point out the fact that when we exercise, we tend to lose water fast, and that it is important to replenish.*
 - What may happen we don't get enough water
 - **If we don't get enough water we may become dehydrated. If we forget to drink water while we are exercising or outside for a long time on a hot day, we have a very high risk of becoming dehydrated. Some signs that our body is dehydrated are feeling tired, dizzy, really thirsty, like you are going to throw up, and not going to the bathroom often. If you feel any of these things, tell an adult you trust. If this happens while you are at school, talk to your teacher or go see the school nurse.**
 - **Some tips for making sure we always stay hydrated are to:**
 - **1. Carry around a water bottle with you throughout the day and keep refilling it with water when it becomes empty.**
 - **2. Take breaks often while exercising and playing outside to drink water, especially on hot days.**
 - **3. Substitute one of your sodas or juices a day with water.**
- Activity

- How much is 8 cups of water?

We have talked about drinking at least 8 cups of water. What does 8 cups of water look like? How much is that? We aren't talking about 8 glasses of water, but actually measuring out 8 cups of water. Teacher may want to hold up a visual representation of a common drinking glass, along with a measuring cup. **This is a measuring cup, it will hold one cup of water. We are going to measure out 8 cups of water to see how much water that is.** Measure out 8 cups of water as a class and pour it into a large clear container. If measurable water bottles are available, measure out 8 cups of water by using multiple water bottles to show them a total of 8 cups.

- Planned Differentiation: The set up for this activity could be varied (at the front of the classroom, gathered around a small table, etc). The teacher can decide how to divide up who measures water, pours water, etc. Teacher can have water bottles available to the students at this time. So that they are sure that the students are drinking water during the school day.
- Guided: The teacher will measure out 8 cups of water and place it on the table. If there is a lid on the clear container, allow student to lift the container to see how heavy 8 cups of water is.
- Limited Guidance: The students will fill up the measuring cup and pour it into the large clear container. If possible, allow each student to play a role whether that be filling up the measuring cup, or pouring it into the container. The teacher will help them to prevent spilling and keeping track of how many cups have been poured into the large container.
- Independent: The student will fill up the measuring cup and pour it into the large clear container. The students will work together as a group to pour the 8 cups into the large clear container.

- Sugar activity

Soda and Juice taste good but are full of sugar. We may think that just because soda, juice and other drinks are liquids they are good for us to drink and give us water. They do have some water but have so lots of sugar in them as well. Therefore, it is not good to drink soda, juice, and other sugary drinks very often. Before we look at how much sugar is in some common sodas, I'm going to explain what I am going to do. I have sugar cubes that I will use to show how much sugar are in the sodas. Have a bowl of sugar cubes in front of the class as well as various cans of soda. **Does anyone want to guess how much sugar is in a soda? You can tell me how many sugar cubes you think there are, or come up to the front and pull out the sugar cubes you think that are in the soda.** After students have guessed, begin the demonstration of sugar content in sodas. Use the guide attached for how many sugar cubes are in various common sodas. **We will look at some juices too that have a lot of sugar. Juice is source of fruit, but**

many have lots of sugar added to them. When choosing juice look for 100% juice and no sugar added.

- Planned Differentiation: Teacher could allow students to add the sugar cubes, to a glass, or do it themselves. They can also do some research to find some other common drinks to do this activity with. They may also want to cover the topic of adding flavor packets to water. Many flavor packets have a low amount of sugar and give students another option of something to drink.
- Guided: The teacher will allow student guesses of how much sugar is in each soda. The teacher will then measure out the correct amount of sugar cubes and place them in front of each soda. It is beneficial to have a bottle of water next to all of the sodas, showing that water has no sugar at all.
- Limited Guidance: The teacher will allow the students to guess how much sugar is in the sodas. The teacher will then tell the class how much is in each soda and allow the students to work together and measure out the correct number of sugar cubes.
- Independent: The teacher will allow student guess of sugar content in the sodas. The teacher will then tell the class how many grams of sugar are in each soda and the students must figure out how many sugar cubes make up each soda's sugar content (one sugar cube= 4 g of sugar). For more advanced students, the teacher can allow students to look on the back of the soda cans and calculate how many sugar cubes it contains from the nutrition facts.
- Logging Water Intake:

An option for the classroom is to allow students to document how much water they drink throughout the whole day (8 cups) or school day (around 5 cups). A classroom graph can be used with stickers placed for each cup of water students report to drink.

 - Planned Differentiation: Teacher could have a premade log book for students to fill out or allow them to be creative and make their own.
 - Guided: Teacher sets a side a small amount of time each day to have the students get their water logs out and fill in as a class. Teacher may need to remind them why they are doing this and review the topic.
 - Limited Guidance: Teacher asks students to get out and update their water log, but allows them to fill it on their own.
 - Independent: Students fill out their water log throughout the day on their own without teacher reminders.

- Conclusion

Drinking water is very important because it keeps our body healthy. 70% of our body is water. Soda and juice may taste better, but it also has a lot of sugar so you need to be careful with how much you drink. 8 cups of water a day is a goal, but if you improve and drink 2 more cups a day, it is progress! Look for signs of dehydration in yourself and your friends. If someone is feeling: sleepy, dizzy, nauseous (like you are going to throw up), feeling really thirsty, with dry mouth, sunken eyes, or haven't gone to the bathroom in 12 hours (or have

dark urine), tell an adult around you. If you aren't able to tell someone right away, find them a drink of water. To make sure you aren't dehydrated- drink 8 cups of water a day. Ask students if they have any questions regarding this subject before the end of the lesson.

- Curriculum Connections
 - Mathematics
 - Numbers and Operations

Students will convert grams of sugar into the sugar cube equivalence.
Understand numbers, ways of representing numbers, relationships among numbers, and number systems.
Understand meanings of operations and how they relate to one another.
 - Measurement

Students will measure out 8 cups of water as well as measure the amount of sugar cubes in sodas and juices.
Understand measurable attributes of objects and the units, systems, and processes of measurement.
Apply appropriate techniques, tools, and formulas to determine measurement.
 - English
 - Writing

Have students write out their guesses of sugar content as well as the different beverages.
Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.
 - Reading

Students will read the chart of sugary drinks themselves and student lead this section of the lesson.
Students participate as knowledgeable, reflective, creative, and critical members of a variety of literacy communities.
Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).
 - Life Skills
 - Food preparation

The teacher can choose a soda and heat it on the stove in a pot, letting the soda simmer until all the water has evaporated. A thick syrup should be left in the pot. This is another visualization of how much sugar is inside sodas. The thick syrupy mixture is very hot and can be someone easily. This should only be done when appropriate with special precautions made for the safety of the students and the teacher. Discussion of food safety would be very beneficial.

Sugar Cube Activity Instructions

Objective: Students will identify which drinks have lots of sugar in them, and why water is a better option.

Materials: Cans of soda, juice containers, sugar cubes, water, cups

Setup: Place the soda/juice containers in front, along with cup/bottles of water. Have sugar cubes next to a clear cup.

Do the activity:

What are some of your favorite drinks? List these on the board. **Lots of people like drinks such as soda and juice. These drinks may taste delicious, but they have lot of sugar in them. Therefore, it's a good idea to drink these drinks occasionally. I want to show you how much sugar is in your favorite drink.** Teacher does an example. **One of my favorite sugary drinks is Dr. Pepper. If I look on the back of the can, I see that Dr. Pepper has 40 grams of sugar in it. There are 4 grams of sugar in one sugar cube. Therefore, if I were to pour out my drink into this cup (hold up a clear cup) I would have 10 sugar cubes.** Count out the sugar cubes as you are putting them into the cup. **That's a lot of sugar!** Let the students see how much sugar that is. Then remind them that water doesn't have any sugar and is always a healthy option.

Beverage	Grams of Sugar	Sugar Cubes
Coca-Cola	39	9.75
Pepsi	41	10.25
Dr. Pepper	40	10
7-up	39	9.75
Sprite	38	9.50
Mountain Dew	47	11.75
Sierra Mist	39	9.75
Orange Juice	39	9.75
Apple Juice	42	10.5
Grape Juice	58	14.5

