

Science Lesson

Unit Theme: Individuality

Books Used:

*The Berenstain Bears and Too Much Junk Food* by Stan Berenstain

*ShowDown At The Food Pyramid* by Rex Barron

**Objectives:**

1. Students will respond to *The Berenstain Bears and Too Much Junk Food*.
2. Students will discuss prior knowledge about good nutrition.
3. Students will identify food groups of the USDA Food Pyramid.
4. Students will work cooperatively with the class to assemble a 3D food pyramid.
5. Students will be able to create their own food choice plates.
6. Students will be able to work effectively in groups, gather information, and analyze ideas.

**New York State Common Core Standards: Second Grade**

Health and PE

1.3. Family and Consumer Sciences: Students will use an understanding of the elements of good nutrition to plan appropriate diets for themselves and others. They will know and use the appropriate tools and technologies for safe and healthy food preparation.

1.3.1. Students understand the importance of nutritious food and how it contributes to good health, make simple nutritious food choices, and assist with basic food preparation.

Science

4.5.3. Describe the factors that help promote good health and growth in humans.

6.2.3. Use different types of models, such as graphs, sketches, diagrams, and maps, to represent various aspects of the real world.

7.2.1. Work effectively

7.2.2. Gather and process information

7.2.3. Generate and analyze ideas

Language Arts

2.W.7.Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

Speaking and Listening Standards

Comprehension and Collaboration

1. Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups.
  - A) Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
  - B) Build on others' talk in conversations by linking their comments to the remarks of others

Learning Environment

4. Teachers work with all students to create a dynamic learning environment that supports achievement and growth.

- ❖ **Note:** Students were asked in the prior science class for homework over the weekend to write down every time they ate.

**Before Learning**

Students will transition to the next subject, which will be science. Students will know how to transition when given the signal of clapping, counting down to ten. Students will all sit on the rug in front of the mounted smart board on the wall. I will begin by holding up the book, *The Berenstain Bears and Too Much Junk Food* by Stan Berenstain and asking the students what is junk food. This will activate prior knowledge. Children will use the strategy, building concepts. Children will turn and talk with the student sitting nearby to share, giving connotative meanings to one another. After two minutes, I will clap and count down to five, to gain the students' attention. Students will get to share

their answers with the class and then I will begin to read the book. I will stop at the point in the book where mama bear realizes the baby bears are eating too much junk food. Students will then have a chance to go back to their seats and write a fast write with their same partner from turn and talk. Students will answer the question, “Why would mama be concerned about her babies eating too much junk food?” After the fast write, science journals will be placed under one’s desk and I will provide the students with the purpose of the science lesson by explaining just like snowflakes, smoothies, and humans are all individual in their own way, and so are varieties of food. Then I will introduce food groups and that people, like all animals, need a variety of food for energy. We need the right amounts of good food to keep our bodies healthy so we are able to play and work at our best.

### **During Learning**

#### *Modeling and Guided Practice*

After introducing the idea, purpose, and the different categories of the food group, each set of partners from before learning, will receive the book, *ShowDown At The Food Pyramid* by Rex Barron. Partners will get to preview and predict what each category of the food group involves by reading headlines, captions, and looking at pictures. After preview and predicting, students will be given a class challenge. Instead of teaching more about the food category, my goal is for students to gather and process information, work effectively, along with generating and analyzing ideas.

Each student will be placed into groups of three. Each group will receive an activity card.

On the activity card it will state what category the group is in charge of, for example, “protein.” Another set of cards will be given out setting roles for each student. There is the facilitator, who reads a brief description of the food category, the harmonizer who encourages the group, while keeping the group on task, and the object placer, who will find the food objects in the basket and place the food object onto the 3D pyramid. Each member of the group will have to brainstorm what they need to get and where to place it. The object of the activity is for all students to figure out which food items belong on the 3D pyramid. The group has to discuss and decide what to place in the pyramid. Once all food items are placed on the pyramid, as a class, the students will have to figure out if the whole pyramid together is correct. I will guide them to set them on the right path. There will be tier two and tier three vocabulary words from the book *The Berenstain Bears and Too Much Junk Food* that will be posted on the white board. After students finish their 3D pyramid challenge, they will incorporate these words into their extended activity and independent work.

I will be checking in with the students and informally assessing their progress by observing and making anecdotal notes. I will be checking to see how groups are working together and if they understand the purpose of group work. While they are active in their group work, I will look to see if they understand the different parts of the food categories.

#### *Independent Practice (Group Work)*

Independent practice takes place after the students finish their class challenge with their groups. Afterwards, in the same groups, students will create on a sentence strip on their

assigned food group section of their category. Using the same roles, on the activity card, they will draw, label and decorate their food category. Once all sections of categories are finished, a magnet will be placed on the back of the sheet and all sections of the pyramid will be put together on the board, in the correct order, to create the whole pyramid. After all sections are placed together, children will individually go back into their fast write and write what they have learned and if they now see the food pyramid in a different view. Science vocabulary words should be written in this fast write. For this fast write, the students will create a menu using a variety of food groups.

### **After Learning**

Once all “during learning” activities are finished, children will return to the carpet in front of the mounted smart board to review what they have learned. A discussion will begin by using the smart board (attached to lesson). Children will discuss the size of each food group, and how the food pyramid helps us make choices everyday. After the discussion, a game will be played. This game is called, “Name that Food Group!” The class will be divided into two groups. I will have one person from each group come to the front of the room. A bell will be placed between the two players. When I name a food, the first player to ring the bell will get to name the food group to which the food belongs. The group whose player correctly names the food group receives a point. Students will play until each child has had a turn. Instead of the winning group receiving a prize, the whole class will be rewarded if the lesson is successfully completed with no problems.

### *Assessment*

There is informal and formal assessment that is included in this lesson to check for understanding. Students will be assessed to see how well they can follow the directions, correct behavior, check for understanding with vocabulary words, and process the food groups. I will be paying attention to all activities, such as the 3D pyramid and the plate activity, reading their science journals, and playing the game to check for understanding. By having the students learn about food groups, they are not only digging deeply into science knowledge, but also applying these strategies to their own lives. When I walk around from group to group during observational assessment, a checklist will be used.

For the students to assess themselves, they will be filling out a group work evaluation checklist (attached to lesson). To assess myself as the teacher, I will use this to see how I am teaching and if my lessons are coming across to help the students learn. I will keep a journal of what went well and what did not for future references. I will also take into consideration student's group work evaluation sheets.

### *Vocabulary*

There will be tier two and tier three vocabulary words from the book *The Berenstain Bears and Too Much Junk Food* that will be posted on the white board. These words will have the definition listed on the board, with a sentence. Students will use these words to write in the fast write and also will use them in their extended activity as they write and create their own plate.

Tier 2:

Diet, Exercise, Health

Tier 3:

Nourishment, calories, Nutrition

*Extension Activity*

For an extended activity, students will use their critical thinking skills to be able to create their own plate of a balanced amount of each food item from each section of the food group. Students will be given a plastic plate with different sections. There are enough sections to guide them. Then, they need to choose what food items they would like and the amount. Afterwards, students can color, and on the back of the plate, write a description of the meal, while incorporating their science vocabulary words. When this project is finished, plates will be hung up around the food pyramid they created.

This is a great project for students to engage in because it involves high order thinking skills and will really get the students to think about what they want to eat by learning how to make a healthy choice. After students have finished their plates, they can take their list out of what they have ate at home, and see if any food item on the list is the same as on their plate.

*Differentiation*

*Presentation:*

This lesson is taught with a focus on the student, whether he or she is an auditory, visual, or hands on learner, so that the student can obtain the most from the lesson. This lesson is small group instruction with cooperative groups. With small group instruction and cooperative groups, students will be able to help one another as well as obtain support from the teacher. Desks will be set up in groups to provide a supporting environment.

*Content:*

To ensure children have materials that best support their learning, all activities created are very tactile, visual, clear, and concise. For students who need help reading the description of the food category, there will be a facilitator in the group who can read the description aloud. For hands on learners, children will be able to take food objects and place them onto the 3D pyramid. As students engage in the project of creating their own plate, they can choose their favorite food of interest.

*Process:*

Students will be put in groups to work together; this is a great opportunity for students who are shy or who have anxiety. For children who need support with visual needs, activity cards will be enlarged, along with the words on the smart board.

*Product:*

For children to demonstrate their knowledge, they can demonstrate it in their own special way. For children who need to move around, the majority of the activities involve standing up and moving objects where they belong, rather than students just sitting in their desks and working on a worksheet. Artists can engage by drawing the food onto



their plate. For students who like to speak and get involved, they will have the opportunity play the “Name that Food Group” game.

### *Reflection*

This science lesson incorporates non-fiction strategy skills, health skills, and everyday life skills such as following directions and group work. This also applies to the theme of individuality. Students will have to learn how to work with others who all have different learning styles and management skills. Students will learn new tier vocabulary words, and know how to incorporate these science words into their own life. This lesson will be graded. I will be checking to see that each student follows the directions, and to see if he or she understands the concept of food groups. This lesson connects to previous lessons, such as math smoothies, and can be related to other subjects as well. This unit can be connected with:

Math: Discussing the “opportunity cost” when you talk about making food choices. If you choose junk food over nutritious food, what is the opportunity cost?

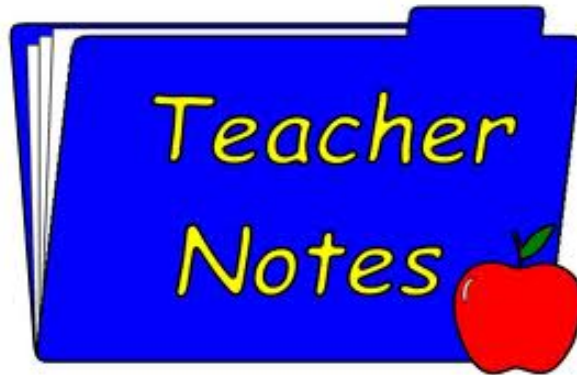
Science: Tying in the science concept of “consumers.” As we purchase and eat foods, we are consumers in the food chain. All animals are dependent upon plants as the producers.

Reading: Discussing family and family roles in providing food as it relates to the story about the *Berenstain Bears*.

History: Pick favorite food and where it originates from.

*Materials*

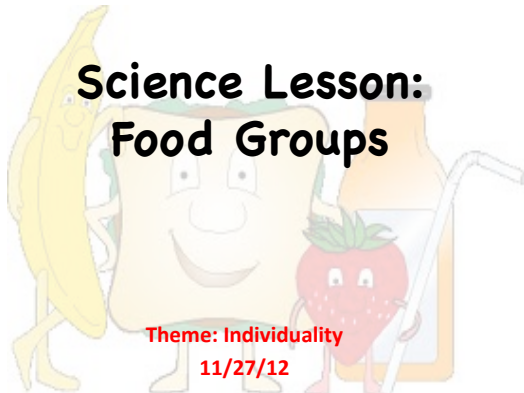
- ✓ *The Berenstain Bears and Too Much Junk Food* by: Stan Berenstain
- ✓ *ShowDown At The Food Pyramid* by Rex Barron
- ✓ Smart Board with power point
- ✓ List of vocabulary words on board
- ✓ Science Journal for fast writes
- ✓ Plastic food objects with basket
- ✓ 3D Pyramid
- ✓ Pencils, crayons, paper for creating plates
- ✓ Bell (for game)
- ✓ Section sheets strips for independent practice
- ✓ Activity cards
- ✓ Student questionnaire
- ✓ Plastic plates



Notes for the teacher before the lesson is given:

- Children's hand made pyramids will be hung up inside the classroom to share with visitors who enter and for students to remind themselves to stay healthy!
- Due to the number of steps in this lesson, the teacher should observe carefully to make sure students have enough time to complete each step and make certain a child who is struggling does not feel isolated and is comfortable.
- The class has practiced and worked in groups before. Students understand the concept of group work.
- For the game prize, students later on in the week get to have a healthy choice feast. I will bring in all different kinds of foods from the each food group for the students to try.

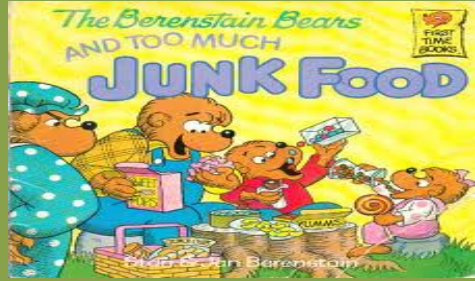
# SMARTBOARD POWERPOINT SLIDES



**Science Lesson:  
Food Groups**

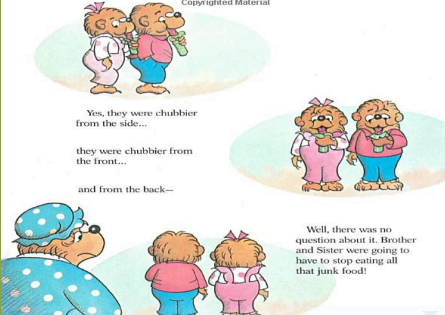
Theme: Individuality  
11/27/12

What is junk food?



◇ LETS READ TO FIND OUT!

**FAST WRITE:** Why would mama be concerned about her babies eating too much junk food?




Yes, they were chubbier from the side...  
they were chubbier from the front...  
and from the back--

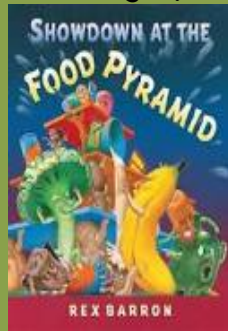
Well, there was no question about it. Brother and Sister were going to have to stop eating all that junk food!

**FOOD GROUPS**

People like all animals, need food for energy. We need the right amounts of good food to keep our bodies healthy so we are able to play and work at our best.



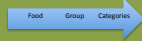
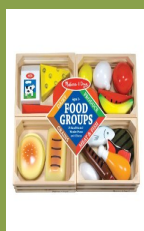
## Preview & Predict Each Food Category



## Class Challenge



As a class, place each food item in the correct section of the pyramid.



GREAT JOB! YOU HAVE COMPLETED THE CHALLENGE!

You are all food group professionals!



## What do we like to do? REVIEW, REVIEW!

As we can see from creating our own food pyramid:

- > each section is a different size. This is because the recommended amount to eat from each food group is represented by the amount of space it is given.  
For example, the grain group takes up the entire bottom portion of the food pyramid because the recommended 6-11 servings.
- > Food pyramid is a guide that helps us make choices.  
What are some foods you enjoy eating?
- > Food Guide Pyramid tell the us that this is the daily food guide recommended by the USDA. The guide shows us what foods we need each day and in what proportions.

## GAME TIME!

**Grain**

**Milk**

**Protein**

**NAME THAT FOOD GROUP!**

**Vegetables**

**Fruit**

**Meat**

## Create Your Own Plate!



## Student Questionnaire On Smoothie Lesson!

Name: \_\_\_\_\_

Date: \_\_\_\_\_

*Directions:* Mark an "X" on the line to the left of each answer that is most like how you feel for each question. Remember this is not a test. There are not right answers. I want to know what you think.

1. How interesting did you find your work in the group?

\_\_\_\_\_ a. Very Interesting. 

\_\_\_\_\_ b. Fairley Interesting. 

\_\_\_\_\_ c. Somewhat Interesting.

\_\_\_\_\_ d. Not very interesting. 

\_\_\_\_\_ e. I was not interested at all. 

2. How difficult did you find your work in the group?

\_\_\_\_\_ a. Extremely difficult.

\_\_\_\_\_ b. Fairly difficult.

\_\_\_\_\_ c. Sometimes difficult.

\_\_\_\_\_ d. Not too difficult -- just about right.

\_\_\_\_\_ e. Very easy.

3. Did you understand exactly what the group was supposed to do?

\_\_\_\_\_ a. I knew just what to do.

\_\_\_\_\_ b. At first I didn't understand.

\_\_\_\_\_ c. It was never clear to me.

4. *For Multiple Ability Tasks*

a. What abilities did you think were important for doing a good job on this task?

b. Was there one ability on which you thought you did very well?

\_\_\_\_\_ Yes

\_\_\_\_\_ No



5. How many times did you have the chance to talk during the group session today?

- \_\_\_ a. None.
- \_\_\_ b. One or two times.
- \_\_\_ c. Three to four times.
- \_\_\_ d. Five or more times.

6. If you talked less than you wanted to, what were the main reasons?

- \_\_\_ a. I felt afraid to give my opinion.
- \_\_\_ b. Somebody else interrupted me.
- \_\_\_ c. I was not given the chance to give my opinion.
- \_\_\_ d. I talked as much as I wanted to.
- \_\_\_ e. Nobody paid attention to what I said.
- \_\_\_ f. I was not interested in the problem.
- \_\_\_ e. I was not feeling well today.

7. Did you get along with everybody in your group?

- \_\_\_ a. With few of them
- \_\_\_ b. With half of them.
- \_\_\_ c. With most of them.
- \_\_\_ d. With all of them.
- \_\_\_ e. With none of them.

8. How many students listened to each other's ideas?

- \_\_\_ a. Only a few of them.
- \_\_\_ b. Half of them.
- \_\_\_ c. Most of them.
- \_\_\_ d. All of them, except one.
- \_\_\_ e. All of them.

