"Mrs. Juarez's" Nutrition Unit

A science unit to integrate with reading
Rachel Mason Hears the Sound

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Teachers, you can adapt or modify this unit to suit your needs. If you are teaching it as part of an integrated unit as you read *Rachel Mason Hears the Sound*, please provide feedback, modifications, etc. to me at coliver@stetson.edu. Bon appetite!

Preparation:
Prepare a bulletin board using a plastic, red and white checked tablecloth as the background. Hot glue plastic spoons and forks around the border for effect. Title it:
FAVORITE FOODS: NUTRITIOUS OR NOT?

This will be used to kick off the unit.

Lesson 1

This lesson is on: **Favorite Food Poems**

(NOTE: This lesson was described in Chapters 1 and 7 of *Rachel Mason Hears the Sound*.)

Create interest and set focus by pointing out the bulletin board which only needs the students' poems to be finished and displayed and by reading my original favorite food poem, "The Sandwich."

Objectives: Students will:
1) write an original poem about their favorite food
2) illustrate poem

Materials: Bulletin board (partially decorated already with red and white checkered tablecloth, plastic forks and spoons, food pictures, white paper plates), a copy of my original poem, "The Sandwich," a white paper plate for each student, markers, Author's Chair.

Anticipated Use of Time	Teacher Activity	Student Activity
2 min.	Lead discussion about favorite foods; ask for examples.	Listen and respond
2 min.	Read "The Sandwich" poem and discuss.	Listen and respond
3 min.	Lead brainstorm and write ideas on board for types of poems, characteristics of favorite food, etc. Direct students to begin pre-writing of poem.	Listen and respond
20 min.	Circulate and assist.	Work on poems.
3 min.	Ask for volunteers to share their work; tell students to finish poem for homework; pass out paper plates for final draft to be attached to bulletin board the next day. (This will help set focus for next day's lesson.)	Listen and respond.

Integration of other content areas: Art, Language Arts

The Sandwich

By Cindy Lovell Oliver

My brother made a sandwich of jelly, eggs, and goo,
Olives, ketchup, lettuce leaves, good ol' Elmer's Glue,
He topped it off with pumpernickel, bottomed it with rye,
And when he took a bite of it I thought that I would die!

He quickly took another bite then swallowed - gulped it down,
A burp said he enjoyed it; I shuddered at the sound,
He used his sleeve to wipe his face and something on his chin,
The way he eats I just don't know how he can stay so thin!

He finished up, licked off his thumb and said he'd make another,
No one I know can eat more food than my skinny little brother!
He offered me a taste and said I really ought to try it,
"No way!" I said, "It's yucky, and besides, I'm on a diet!"

He shrugged and took another bite, he said it tasted good,
I thought perhaps I'd have a taste, I should - in fact I would!
He held it out, I held my nose, I even shut my eyes,
(I hoped the paramedics way downtown could hear my cries!)

I nibbled on the crust, took a bite, began to chew…
Good grief! It was delicious! So I made myself one, too!

Lesson 2

This lesson is on: **The Food Pyramid**

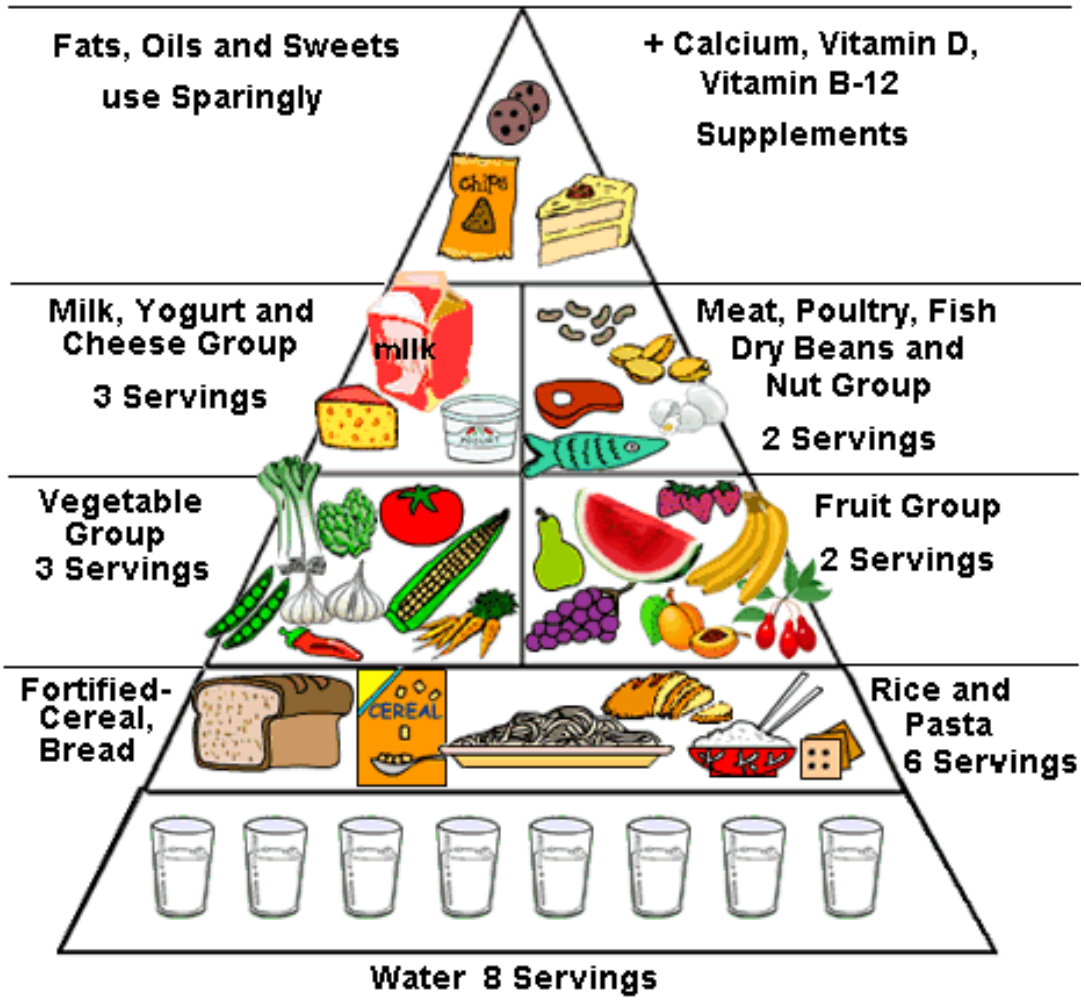
Create interest and set focus by pointing out progress of finished poems on bulletin board and saying that this lesson will take us further into our studies of nutrition.

Objectives: Students will:
1) brainstorm characteristics of a pyramid
2) draw and label their own food pyramid with 100% accuracy

Materials: overhead projector and transparency, marker, paper for students, markers.

Anticipated use of time	Teacher Activity	Student Activity
5 min.	Draw a triangle and a pyramid on the board; ask students to tell the characteristics of a pyramid (if they do not say it, be sure to emphasize the size and importance of the base). Pass out paper.	Listen and respond
20 min.	Using overhead, draw <u>with</u> the students as they work on their pyramids together, discussing the importance of the base, which is the grain group, and the decreasing portion size of the other groups, especially the tip of the pyramid which is significantly smaller. As you draw and label, discuss the following terms and concepts: 1. grain (6 servings daily), carbohydrates, energy 2. fruits (2-4) 3. vegetables (3-5) 4. dairy (2-3), calcium, bones, teeth 5. meat (2-3), eggs, nuts, protein, muscle 6. fats, oils, sugar (less than 1 serving)	Listen, draw, respond.
5 min.	Review the concept of the pyramid and ask for examples of each of the food groups depicted; ask where their favorite foods fit in. Assign 6 cooperative learning groups (grains, fruit, etc.); assign homework: bring in 2 labels, empty cartons, or wrappers –one for the group to which s/he is assigned and one for any other group so that groups can assemble a food mobile for next lesson.	Respond

<u>Integration of other content areas:</u> Art, Math


Fats, Oils and Sweets
use Sparingly
+ Calcium, Vitamin D,
Vitamin B-12
Supplements
Milk, Yogurt and
Cheese Group
3 Servings
Meat, Poultry, Fish
Dry Beans and
Nut Group
2 Servings
Vegetable
Group
3 Servings
Fruit Group
2 Servings
Fortified-
Cereal,
Bread
Rice and
Pasta
6 Servings
Water 8 Servings

Lesson 3

This lesson is on: **Food Mobiles** (placing foods into proper groups)

Create interest and set focus by showing students materials and telling them about the lesson.

Objectives: Students will:

1) work cooperatively
2) assemble a food mobile which represents one food group (which has been previously assigned to each group)
3) choose correct foods to represent their group
4) label mobile with appropriate characteristics of group (example: grain group may write “carbohydrates” or “energy”)

Materials: 6 coat hangers, yarn, tape, glue sticks, markers, food ads, construction paper, wrappers, labels, cartons, toy food items (can be purchased at Toys R Us, Dollar Store, etc.), and pyramids drawn by students in previous lesson.

Time	Teacher Activity	Student Activity
1 min.	Collect “homework” (labels, etc.)	Place items on desk
4 min.	Distribute several handfuls of food labels, samples, pictures, etc. to each group; direct them to separate items into correct analysis groups, keep the items of their group, and deliver the other items to the appropriate groups (be sure each group assigns only one “gopher”)	Separate and categorize; deliver.
20 min.	Demonstrate how items will look attached to mobile; direct students to assemble mobiles; circulate and assist.	Listen and respond; assemble mobiles.
5 min.	Ask each group to share the characteristics of their food group by showing examples on their mobiles, etc. Hang each mobile over each group (desks are already arranged). Direct students to clean up and tell them that the next lesson will involve some detective work.	Respond.

Integration of other content areas: Art, Social Skills

Lesson 4

This lesson is on: **Looking at Labels**

Create interest and set focus by giving a packaged food item to each group and telling them that they will be doing some detective work. (Each group will be given an item representing their group's food, such as a box of rice for the grain group.)

Objectives: Students will:

1) work cooperatively
2) identify the name of the product
3) determine the weight of the product
4) identify words (adjectives) on the label that are used to help promote the sale of the product or to describe the product
5) list the ingredients of the product
6) list the nutritional information about the product (objectives 2-6 must be done with at least 80% accuracy)

Materials: "Looking at Labels" worksheet (teacher developed), 6 packaged food products representing all 6 food groups.

Time	Teacher Activity	Student Activity
3 min.	Read worksheet aloud; direct students to look at their groups' labels for the items requested on worksheet. Direct students to work together on worksheets.	Listen and respond
15 min.	Circulate and assist	Work cooperatively
7 min.	Lead discussion about what students discovered. Review nutritional terms and concepts as they appear on labels. Tell students that the next lesson will focus on the nutritional part of the lesson and that what they are learning will be a great help when they help with the family grocery shopping.	Listen and respond

Integration of other content areas: Social Skills

Looking at Labels…

1. What is the name of the product?

2. What is the weight of the product?

3. What words are used to describe or explain the product?

4. List the ingredients: (in order as they are on the label)

5. List the nutritional information:

Lesson 5

This lesson is on: **Specific Nutrition Information on Labels**

Create interest and set focus by handing out the same food products used in the previous lesson and handing out the students' completed "Looking at Labels" worksheet which provides the same nutritional information as their food products. Tell students that this lesson will help them understand why nutritionists emphasize the need to eat a variety of foods.

Objectives: Students will:

1) work cooperatively
2) identify serving size, number of servings per container, calories per serving, protein per serving, carbohydrates per serving, and fat per serving with 100% accuracy
3) determine that the food product they are examining does not contain 100% of any nutrient as recommended by the U. S. R. D. A.
4) determine that it is necessary to eat a variety of foods in order to be our healthiest

Materials: "Spotlight on Nutrition" worksheets, completed "Looking at Labels" worksheet, some food products as used in previous lesson.

Time	Teacher Activity	Student Activity
3 min.	Direct attention to Nutritional Facts portion of label; ask for volunteers to locate examples of information requested on worksheet. Direct students to work together to complete their worksheets. Tell them that 100% accuracy is expected	Listen and respond
15 min.	Circulate and assist.	Work cooperatively
7 min.	Lead discussion about what was learned; review terms and concepts. Tell students that their detective skills are now sharp enough to examine the confusing world of advertising, the focus of our next lesson.	Listen and respond

Integration of other content areas: Social Skills, Math

Spotlight on Nutrition…

1. What is the serving size?

2. How many servings per container?

3. How many calories per serving?

4. How much protein per serving?

5. How many carbohydrates per serving?

6. How much fat per serving?

7. Does this product provide 100% of any nutrient as recommended by the U. S. Recommended Daily Allowance? If so, which nutrient(s)?

Lesson 6

This lesson is on: **Why We Buy** (examining advertisements for reasons we buy certain food products)

Create interest and set focus by telling students they will get a chance to create an ad for their favorite food.

Objectives: Students will:
1) identify at least 2 techniques/strategies used in advertising
2) explain why successful advertising is important to food companies

Materials: one colorful food advertisement for each student

Time	Teacher Activity	Student Activity
5 min.	Lead discussion about ads, why they're used; name some well-known ads; pass out an ad to each student	Listen and respond
20 min.	Direct students to look at ads and try to determine techniques that were used to make the reader want to buy the product; brainstorm and write all ideas on board. (Ads should be carefully chosen to elicit such responses as celebrity endorsements, coupons, good pictures, good adjectives, serving sizes, money savings, etc.)	Listen and respond
5 min.	Collect ads and ask students about products they have recently purchased and whether or not they were influenced by an ad (TV or print) and if so, how they were influenced. Tell them that the next lesson will involve creating an ad to sell the food they wrote about in their favorite food poems. Tell them to be thinking about how they plan to design their ads and to consider some of the strategies discussed in this lesson. (Copy the list on board to have available for next lesson.) Tell them they want to do their best efforts because the other fourth grade classes as well as fifth grade classes will be given a ballot to vote for the one product they would buy based upon the ads designed by students.	Listen and respond

Integration of other content areas: Critical Thinking Skills

Lesson 7

This lesson is on: **Creating a Food Ad**

Create interest and set focus by showing students the other bulletin board (located outside of classroom where other students can see it) that has been prepared for their original ads. Use many different newspaper food ads and magazine food ads to create a confusing background and title it **"Examining Ads: Why do we Buy?"** Use play money on the board as well to reinforce the idea that ads are designed with one purpose – to make money. Remind the students that other students will be voting and the winner will receive a prize. (Suggested prizes: a cookbook for kids, gift certificate for local grocery store, etc.) Distribute ballots to the 4th and 5th grade students who will be voting.

Objectives: Students will:

1) design an ad using at least two of the criteria for a good ad as determined by the brainstorming session of previous lesson
2) use their names to sell their products based on their favorite foods (example: Tanya's Famous Sketti) thus promoting self-esteem

Materials: Bulletin board, white paper, markers.

Time	Teacher Activity	Student Activity
5 min.	Show bulletin board; review strategies for good ads; have brainstorming session from prior lesson recopied on board; remind students that they were suppose to be thinking about their ads and ask for volunteers to share their ideas; direct students to begin ads.	Listen and respond
23 min.	Circulate and assist; hold up ads that are progressing that show various strategies being used (coupons, celebrities, etc.)	Work on ads
2 min.	Ask for volunteers to share finished ads; assign unfinished ads for homework; collect and display finished ads.	Respond

Integration of other content areas: Art, Critical Thinking Skills

BALLOT TO VOTE FOR BEST AD

To: The 4th and 5th grade students of Manatee Elementary School
From: Mrs. Juarez, 5th grade teacher

Do all the ads you see on TV confuse you about what to buy? How about the ads in newspapers and magazines – do they make it easier or harder to come to a decision about how to spend your money? We have been studying a unit about nutrition and have discovered that food ads greatly influence the foods we buy and ear. Most ads show pictures of food that looks tasty. Words like "NEW" and "BETTER TASTING" or "LESS CALORIES" might influence our decision to buy certain food products. Some ads have coupons so we can save a little money and some even show a famous person recommending, or endorsing, a food product.

With all the confusion about how to spend our grocery money, we thought it would be fun to design our own ads for our favorite foods, so we did! Our ads are located on our outside bulletin board titled "Examining Ads: Why Do We Buy?" We would like you to come look at our ads and see the different strategies we used to make you, the consumer, want to buy our food products. Please use the ballot below to vote for one ad only. Also, we would greatly appreciate it if you would tell us why you chose the ad for which you voted. Thank you for your help!

Sincerely,
Mrs. Juarez

If I were a customer, I would buy the product shown on ad # _____

I chose this ad because:

VOTE FOR THE BEST AD!

Lesson 8

This lesson is on: **The Food Pyramid Game**

Create interest and set focus by telling students they are going outdoors for this lesson.

Objectives: Students will:

1) correctly place a food item into its proper food group (example: rice belongs to the grain group)
2) state how many servings of each food group is needed daily
3) work and play cooperatively

Materials: Sidewalk chalk, playground, 22 pictures of different foods which accurately represent the highest number of servings in each food group (6 grain, 4 fruit, 5 vegetable, 3 dairy, 3 meat, 1 fat/sugar)

Rules of the game: Draw a large pyramid on pavement with chalk; draw lines of division for six food groups. Students must form a circle around pyramid, facing outward from pyramid. Randomly give each student a food picture. When each student has a picture, say, "GO!" Students must turn around and place themselves in the appropriate space of their food picture. Any student who is in the wrong space is "out." Remaining students must name one nutrition fact about the food they represent. The teacher will make the decision to accept the fact. (Responses will be broad and varied and teacher should be as accepting as possible, asking for clarification when needed.) If students give a wrong "fact" or none at all, they are "out." This process is repeated (recycling pictures each time remaining students form circle so that they do not represent the same foods each time) until there is one student remaining. Rules may be modified as needed to maximize group participation, but even students who are "out" will learn by watching classmates run to spaces and listening to their "fact" responses.

Note: If there are not 22 students present, eliminate from the largest group first, such as grain or vegetables. (Modify as needed.) This lesson should be taught immediately after lunch since students are already on the playground and maximum instructional time will be utilized.

Time	Teacher Activity	Student Activity
2 min.	Explain rules of game; demonstrate; ask for questions.	Listen and respond
28 min.	Facilitate playing of game, discussions, etc.	Play
1 min	Collect pictures and call for line up; ask if anything new was learned from classmates.	Respond

Integration of other content areas: Physical Education

Lesson 9

This lesson is on: **Potato Products Pricing**
(NOTE: This lesson was described in Chapter 9 of *Rachel Mason Hears the Sound*.)

Create interest and set focus by showing the foods to be examined in this lab.

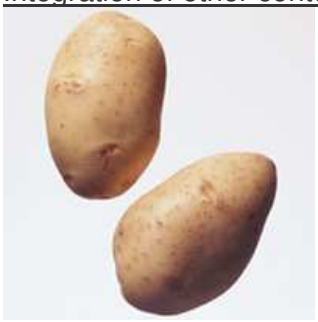
Objectives: Students will:

1) determine the price per pound of 4 different potato products
2) graph the results of their findings on a poster
3) compare and contrast the nutritional values of these products as well as their prices
4) work cooperatively

Materials: One set for each group (6 groups total): 1 raw potato, 1 bag of potato chips, 1 box of instant potatoes, 1 box of frozen potato products, 1 grocery receipt showing prices of products. For the entire class, one 22" x 28" poster board for graph; markers.

Time	Teacher Activity	Student Activity
2 min.	Show products and poster; tell students purposes of lesson	Listen and respond
15 min.	Ask students to look at products and determine price per pound; not all products are priced this way (3 are packaged by oz.) so math conversions will be needed – ask for volunteers to go through the correct sequence of math procedures; guide and correct when necessary. This is a class project with contributions coming from the various groups. As prices are determined and agreed upon, mark the graph on the poster board.	Respond
10 min.	Lead discussion about nutritional facts found on labels; probe for high level (what's good and why, what's bad and why); discuss the value of the products relating money to nutrition; probe for critical thinking and discussion.	Listen and respond
3 min.	Ask for questions relating to unit; review concepts or terms as requested or as needed. Remind to study their food pyramids for unit test. Remind that next lesson is culmination of unit – nutritional feast.	Listen and respond

Integration of other content areas: Math, Critical Thinking Skills, Social Skills



Lesson 10

This lesson is on: **Nutritional Feast**
(NOTE: This is the culminating activity for the unit, so the emphasis is on FUN!)

Create interest and set focus by placing a Betty Boop waitress (cardboard standee) at blackboard waiting to "serve" students or by dressing as a waitress. (Teachers – be creative!)

Objectives: Students will:
1) state which food groups foods belong to as well as the number of servings recommended by the food pyramid
2) illustrate food pyramids drawn in Lesson 2

Materials: A variety of nutritional foods sufficient to provide a snack for the entire class, life-size Betty Boop as waitress cardboard standee, video clips of animated "feast" scenes (Disney's "Rumble in my Tumbly," Disney's "Be our Guest" from *Beauty and the Beast*, Disney's "Soup's on," and Disney's "Chef Donald.")

Time	Teacher Activity	Student Activity
5-7 min.	Pass out food; direct students to volunteer nutritional information about the various foods; encourage tasting of new items remind them to use proper table manners (social skills)	Listen and respond
18 min.	Direct students to watch video while snacking; they may also illustrate their pyramids while watching/listening to video clips.	Respond
5-7 min.	Discuss concepts of nutrition and ask for questions; remind them to study for test.	Respond

Integration of other content areas: Social Skills, Art (animation)

The **Final Exam** for this unit can be requested by teachers. Please email me at coliver@stetson.edu to make your request. If you design your own final exam, be sure to include the final analysis question that refers back to the first day of class:

1. What was the favorite food that you identified? Is it nutritious? Why or why not?

Possible Extensions:

- From *RMHTS*:
  - Read Rachel Mason's favorite food poem aloud ("Surviving on Salsa" p. 37 & 38). Be sure to include salsa as a nutrition label to evaluate.
  - Rachel visits Blue Spring State Park. Plan a field trip to a local state park to explore (exercise) and picnic (with nutritious food).

- Language Arts Connection: Bolster your class library during the teaching of this unit to include books about nutrition, eating disorders, cookbooks, etc. Include books by Mark Twain (Rachel's favorite author). Encourage students to spotlight a type of food found in their favorite books; create a bulletin board or other project to show what their favorite literary characters like to eat.

- Favorite Recipes: Create a class cookbook made up of students' favorite recipes. Include photos and illustrations. Publish and sell as a fundraiser to support a local food bank.

- Social Studies: Investigate world hunger at http://www.worldhunger.org/ and through other sources.

- Physical Education: Collaborate with your P.E. teacher to stress the importance of exercise and a balanced diet. Teach students how to calculate Body Mass Index and establish a personal plan for healthy living. Calculator online at: http://www.cdc.gov/nccdphp/dnpa/bmi/index.htm

- View the video "Super Size Me" (2004) and investigate the trends in obesity, links to fast foods, etc.

- Water: It is recommended that we drink 8 glasses of water each day. Investigate water quality and water resources locally and globally.