

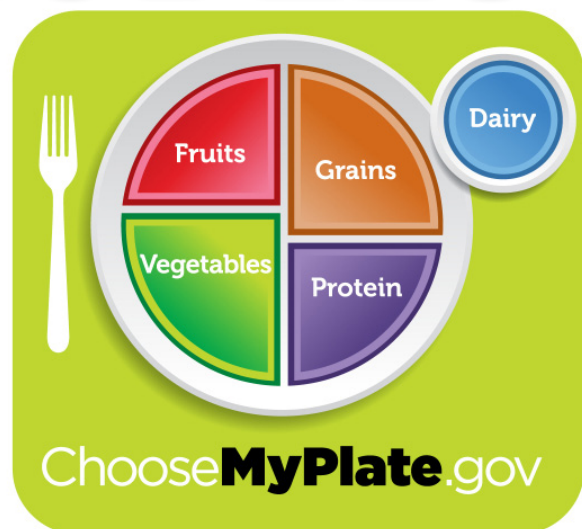


FOOD MODELS

and

MyPlate

Activity Guide for Grades K–6



Agriculture in the **Classroom**
UtahState University
 COOPERATIVE EXTENSION

Acknowledgements

Garzino, M. A Teacher Resource Using Food Models and Utah Core Curriculum Standards (grades 1-6). Dairy Council of Utah/Nevada, 2003.

The following activities were adapted with permission from the National Dairy Council:

- Five Food Group Bingo
- Food Group Concentration
- Food Model Go Fish
- Food Model Mobiles
- Moving Down the Line
- Happy Food Song
- From Moo to You
- Food Rainbow
- Brown Bagging It
- Fishing For Foods Game
- Label It Nutrition
- 20 Questions
- Concentration
- Where Food Grows
- Get a Feel for Food

These activities can be located at their website: <http://www.nutritionexplorations.org/educators/lessons/foodmodels/foodmodels-main.asp>

Food Models and Additional MyPlate Materials

The Food Models featured in this activity guide can be purchased at <https://extension.usu.edu/aitc/cart/details.cfm?ProdID=91&category=0>.

MyPlate Activity Poster is located at <https://utah.agclassroom.org/cart/Details.cfm?ProdID=478&category=0>.

MyPlate blackline coloring sheet can be found at <http://www.choosemyplate.gov/downloads/MyPlate/ColoringSheet.pdf>.

Sandwich Template is available through Utah Agriculture in the Classroom at <http://utah.agclassroom.org/files/uploads/activities/sandwichtemplate.pdf>.

Professional Development for Busy Educators

For more information on nutrition, agriculture, and our online course, "Food, Land and People," visit the Utah Agriculture in the Classroom website: <http://www.agclassroom.org/ut>.



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Level 1 (Grades K–2)

Objective

Students will explain the importance of breakfast.

Materials

Food Models; 12" x 18" paper (one per student); crayons, markers, or paint; yarn, fasteners, or other material for binding the book



Create a Big Breakfast Book

Activity

Discuss why breakfast is important and how we feel when we don't eat breakfast. Have students take turns choosing Food Models that are typical breakfast foods. As a group, review the list and decide to which food group each belongs.

Distribute a 12" x 18" piece of paper to each student. On the page, have them write or draw information such as:

- what foods they like to eat for breakfast
- who they eat breakfast with
- where they eat breakfast
- how they feel when they eat or don't eat breakfast

Have students illustrate their pages with crayons, markers, or paint. Bind all of the pages together in a book and choose a title. In a reading circle, have each student share his or her page in the book. If you are working in a school that has a School Breakfast Program, invite a member of the cafeteria staff to come into the classroom and tell the students about the school's program, who can use it, and how the staff works to make nutritious breakfast choices for students. This may also help initiate a dialog with students who may not be getting breakfast for some reason other than personal choice.



Breakfast Helpers

Activity

Post Food Models on a bulletin board or spread them out on a table. Ask students to name foods they eat for breakfast. As a student names a food, ask him or her to find the corresponding Food Model. Based on the chosen foods, discuss family chores related to preparing breakfast. Then discuss with which of these chores your students can help. These might include setting the breakfast table, pouring cereal into a bowl, peeling a banana, etc. Other discussion topics may include chores that should be left to an older sibling or adult, such as cooking on the stove, using a knife, etc.

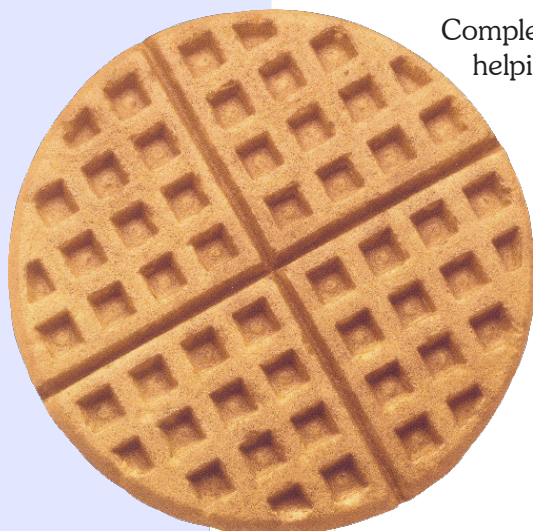
Objective

Students will name foods eaten for breakfast and discuss chores related to food preparation.

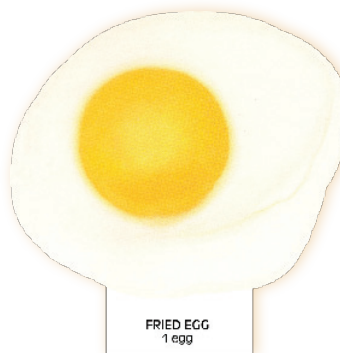
Materials

Food Models; paper; crayons, markers, or colored pencils

Complete the activity by having students draw pictures of themselves helping to prepare breakfast.



WHOLE-WHEAT
WAFFLE
7" waffle (2 ounces)



FRIED EGG
1 egg



ORANGE JUICE
½ cup



Concentration

Preparation

From the package of Food Models, remove all combination foods and those from the “others” category.

Activity

Attach four Food Models on the board with tape or sticky tack. Have the students name the foods. Ask them to close their eyes. Remove one of the Food Models. Have students uncover their eyes and then try to identify the missing Food Model. When the correct answer is given, place the Food Model back on the board. Repeat with the same or new Food Models.



Happy Food Song

Preparation

Select the Food Models you would like to use in the song (one per student).

Activity

Teach students the “Happy Food Song” (sung to the tune of “If You’re Happy and You Know It.” For example, if you use a cheese model, sing:

“If there’s cheese and you know it, stomp your feet,
If there’s cheese and you know it, stomp your feet,
If there’s cheese and you know it, hold your food card up and show us,
If there’s cheese and you know it, stomp your feet.”

Hand out a Food Model to each student and identify the food. Sing the “Happy Food Song” and insert the name of one of the Food Models in the appropriate spot. Have the student with the Food Model hold it up. Have the rest of the group sing and perform the activity.

Substitute “jump up and down,” “clap your hands,” “touch your toes,” “nod your head,” or other activities that use large motor skills in place of “stomp your feet.”



Out of the Frying Pan

Activity

Use Food Models to stimulate a discussion of food preparation technology. Spread out the Food Models on a table. Ask students to name several foods that are served at school as part of school lunch or school breakfast. Display those Food Models together on a bulletin board or chalkboard. Then ask students to identify foods that they eat at home but that are not served in school. Display those Food Models together.

Discuss with students the type of equipment needed to store, prepare, and serve the foods they eat at home. Then discuss the type of equipment needed to store, prepare, and serve foods eaten at school. If students are not familiar with the school equipment, arrange with your school food service manager for a tour of the school kitchen. Compare equipment used to prepare foods at school with appliances used at home.

Objective

Students will identify various foods in a group, then identify one missing from the group.

Materials

Food Models, tape or sticky tack

Objective

Students will identify a food through music and movement.

Materials

Food Models

Objective

Students will discuss the type of equipment needed to prepare and serve foods eaten at home and at school.

Materials

Food Models

Objective

Students will identify foods that grow above ground and those that grow underground.

Materials

Food Models, a bag or basket, *Tops & Bottoms* by Janet Stevens

Objective

Students will identify whether foods are solids or liquids using Food Models.

Materials

Food Models

Objective

Students will use Food Models to identify rhyming words.

Materials

Food Models



Where Food Grows

Preparation

Select fruits and vegetables from the package of Food Models. Choose those that are familiar to students. Create a bulletin board that includes a tree with a line that indicates the ground.

Activity

Read a book that discusses the types of plants we eat, such as *Tops & Bottoms* by Janet Stevens. Discuss how fruits and vegetables grow: some grow on trees and above ground, some grow underground.

Have students choose selected Food Models from a bag or basket. As a group, have students identify each food and decide whether it grows on a tree, above the ground, or beneath the ground. Have the students attach the Food Models on the appropriate spot on the board.



Solid or Liquid?

Preparation

Pre-select Food Models that are clearly solid or liquid in order to avoid confusing the students.

Activity

To review the difference between solids and liquids, teach students to use two hand signals: a closed fist to represent solids and fluttering fingers to represent liquids.

Show students one Food Model at a time and ask, “Is this food liquid or solid?” Have them use the appropriate hand signal to indicate their answer.

If many students have difficulty with a particular food item, bring the actual items into class for them to experience directly.



Rhyming Dining

Preparation

Pre-select Food Models with one-syllable names, such as pear, shrimp, corn, ham, egg, cheese, milk, peach, soup, bread, squash.

Activity

Hold up a Food Model. Ask students to name the food, then ask them to think of a word that rhymes with that food. Copy a few of the words the students generate onto the board.

Invite students to make silly sentences using the rhyming words for Food Models. For example: The bear with pink hair ate the pear.

Additional Activity

Have students draw pictures that correspond to their silly sentences. Create a class book with student work.



Syllable Count

Activity

Distribute Food Models to students. One at a time, have students show their Food Model and read the name out loud. Ask the rest of the class to hold up fingers to show how many syllables are in that name.



Food Syllables

Preparation

Pre-select about 20 Food Models with different numbers of syllables in their names.

Activity

Post selected Food Models on a bulletin board or chalkboard. Review the names of the Food Models. Then ask students questions like: Who can find a three-syllable fruit? (pineapple) Who can find a two-syllable food? (ice cream)

Additional Activity

Have students draw a picture of their favorite food and identify the number of syllables in that food.



Mystery Food

Preparation

Pre-select multiple Food Models that have the same color, e.g. banana, corn, and Swiss cheese or grapes, green beans, and lettuce.

Activity

Post an assortment of Food Models on a bulletin board or pocket chart. Play a “mystery” game with students. Begin by saying, “I am looking for a food that is yellow. Raise your hand if you think you know what it is.” Wait until several students respond. Continue by saying, “I am looking for a food that is yellow and square. Raise your hand if you think you know what it is.” (Swiss cheese)

Try another example: “I am looking for a green food; a green food that is usually eaten warm.” (green beans)

Continue by inviting students to pose a question to their classmates using two attributes to describe the mystery food.

Objective

Students will count syllables in words using Food Models.

Materials

Food Models

Objective

Students will find foods with differing number of syllables.

Materials

Food Models

Objective

Students will recognize patterns and will sort and classify objects by one or two attributes.

Materials

Food Models



Level 1

Objective

Students will identify, create, and label simple patterns.

Materials

Food Models



Pattern Makers

Preparation

Select Food Models that allow students to identify the rule that determines a pattern.

Activity

Review the term “pattern” with students. Use the pre-selected Food Models to create patterns. Then have students extend the pattern. For example:

- Pattern: grapes, candy bar, green beans, chocolate milk...
Next item will be: a green food
Rule/Description: green, brown, green, brown
- Pattern: grapefruit, carrots, bagel...
Next item will be: any round food
Rule/Description: round foods
- Pattern: cheddar cheese, flavored milk, milk...
Next item will be: any dairy group food
Rule/Description: dairy group foods

Additional Activity

Have students create their own patterns with food pictures (drawn or cut from magazines). Then have them write the rule.



Fishing for Foods Game

Preparation

From the collection of Food Models, select only foods that are clearly identifiable in each food group by omitting all combination foods and “others.” Fasten a magnet onto a toy fishing pole or dowel with attached string. Attach a paper clip to each selected Food Model. If desired, set up an inflatable swimming pool and fill with prepared Food Models.

Activity

Review food groups and foods within groups. Have students take turns “fishing” and correctly naming the food and its food group. Students may keep the Food Model if they answered correctly. The person with the most Food Models at the end of the activity is the winner. This may be used as a learning activity station.

Additional Activity

Rather than keeping the Food Models, students may be required to appropriately place the Food Model on a MyPlate Activity Poster (see inside front cover for details).

Objective

Students will identify food groups and foods within groups.

Materials

Food Models, toy fishing pole or dowel with attached string, magnet, paper clips, optional inflatable swimming pool





Food Rainbow

Preparation

Prepare a large rainbow (about 3' x 4') using red, orange, yellow, green, blue, and purple paper. Select a variety of fruits from the package of Food Models (one per student).

Activity

Place the rainbow on the floor. Review the colors of the rainbow with students. Hand out one Food Model to each student. Have each student name the food, name the color (have the whole class help if necessary), and place the model on the corresponding color of the rainbow.

When all students have participated, count the number of red fruits, orange fruits, etc. Create a class graph using the data.

Objective

Students will name and identify the colors of selected fruits.

Materials

Food Models; red, orange, yellow, green, blue, and purple paper for a rainbow



Food Geometry

Preparation

Select Food Models for foods shaped like circles, squares, rectangles, and triangles. Circles include English muffin, waffle, zucchini, ground beef patty, orange, grapefruit, carrots, pancake; squares include Muenster cheese, lasagna, American cheese, Swiss cheese, graham crackers; rectangles include rye crackers, fish sticks, granola bar, cream cheese; and triangles include pizza, chicken pot pie, watermelon.

Activity

Post Food Models on a bulletin board, making sure the shapes are mixed. Have students practice recognizing shapes by naming a shape and asking a student to select a Food Model with that shape.

Additional Activity

Have students divide paper into four sections and label each section with the drawing of a different shape: circle, square, rectangle, square. Then have students draw foods with shapes that correspond to the label of each section. For example, under the square section, a student may draw an entire peanut butter sandwich.

Objective

Students will describe, model, draw, and classify shapes.

Materials

Food Models



Objective

Students will identify foods within food groups and create a class quilt with their drawings of various foods.

Materials

Food Models, 28—5" x 6" pieces of various colors of construction paper, dowel, crayons or markers, Food Models, MyPlate Activity Poster (see inside front cover for details)

Objective

Students will identify foods made from milk.

Materials

Food Models; book about cows or a dairy farm, such as *Milk: From Cow to Carton* by Alik; optional video "Make Mine Milk"



Food Group Quilt

Preparation

Cut 28—5" x 6" pieces of various colors of construction paper. Label the upper corner of each piece with letters A through Z. Write the quilt's title, "The ABC's of Healthy Eating," on one of the extra cards. Write the name of your class on the other extra card. From the package of Food Models, remove combination foods and those from the "others" category. Display the "MyPlate Activity Poster" in the classroom.

Activity

Review food groups using Food Models. Have students take turns choosing Food Models and placing them in the appropriate area of the "MyPlate Activity Poster." Check for understanding. Distribute the pieces of colored construction paper. Have students draw a picture of a Five Food Group food (i.e., no combination foods) that begins with their assigned letter. Have them write the name of their food beneath it.

Assemble the completed cards into a quilt with seven rows of four each. Begin the first row with the quilt title and end the last row with your class name. Glue the pieces together, make stitch marks with a black marker and laminate. Mount it on a dowel and display.



From Moo to You

Preparation

Select 10–12 Food Models familiar to students, making sure to include cheese, milk, yogurt, and ice cream.

Activity

Read a story to the class about cows or a dairy farm. Discuss the story. Consider showing a video about how milk is processed, such as "Make Mine Milk."

Display the selected Food Models and have students identify those foods that are made from milk. Teach students the "Five Cold Mugs of Milk" fingerplay:

Five cold mugs of milk sitting in the fridge (*children hold up five fingers*)
One was drunk by my friend Midge (*they pretend to drink a glass of milk*)
Four cold mugs of milk sitting in the fridge (*children hold up four fingers*)
Another was drunk by my friend Midge (*they pretend to drink it*)
Three cold mugs of milk sitting in the fridge (*children hold up three fingers*)
Another was drunk by my friend Midge (*they pretend to drink it*)
Two cold mugs of milk sitting in the fridge (*children hold up two fingers*)
Another was drunk by my friend Midge (*they pretend to drink it*)
One last glass of milk sitting in the fridge (*children hold up one finger*)
I drank it myself instead of Midge (*they point to themselves and pretend to drink it*)



Get a Feel for Food

Preparation

Select five to ten Food Models that can easily be identified by touch, such as a hard-boiled egg, peanuts, orange, pretzel, banana, waffle, carrot, crackers, tomato, popcorn, peach, and apple. Obtain the actual foods that correspond to the Food Models. Place one of the actual foods in the feel bag and hide the others from sight.

Activity

Discuss with students the sense of touch. Have each student feel the object inside the feel bag. Ask them to only think about the object; they must keep it a secret.

After everyone takes a turn, ask questions that will allow the children to describe the size, shape, and feel of the food.

Ask one student to select the Food Model that they think corresponds to the object in the bag. Ask students to give a “thumbs up” if they agree; “thumbs down” if they disagree. Remove the food from the bag to show students the accuracy of their choice.

Have students close their eyes while you place another food inside the feel bag. Continue the game.

Additional Activity

Have a tasting party using the foods from the feel bag. (Make sure there is enough for all students to have a taste.) Ask students to describe the foods as they eat them, paying close attention to size, shape, and taste.

Objective

Students will describe the characteristics of food.

Materials

Food Models, a “feel” bag, various foods for the feel bag



What Shape Are You In?

Activity

Many foods in the Food Model set have distinct shapes—circle, square, rectangle, and triangle. Other foods are amorphous in shape and/or take on the shape of the container.

Review shapes with students. Tell them they will be sorting Food Models according to their shapes. (You may provide categories or allow students to create their own shape categories.)

Place students in small groups. Provide each group with 20-25 Food Models. When the groups are finished, have them share their shape categories and the foods they placed in each category.

Objective

Students will describe, identify and sort Food Models according to geometric shape.

Materials

Food Models



Objective

Students will identify foods within food groups.

Materials

Food Models, 7 large paper grocery bags, marker, 4" x 4" pieces of drawing paper in two colors (5 per student)



Objective

Students will use fractions to identify parts of the whole through the use of Food Models.

Materials

Food Models, 11" x 17" paper (optional)



Food Group Relay

Preparation

Label one grocery bag "Team A" and one bag "Team B." Label the five remaining bags for each of the Five Food Groups: Dairy, Protein, Grains, Fruits, and Vegetables. Cut pieces of drawing paper in two colors (five per student) into 4" x 4" squares; make half one color and half another color.

Activity

Using the Food Models, review examples of foods within food groups before engaging in the relay activity. Divide the class into two teams. Provide each student with five pieces of 4" x 4" drawing paper, using a different color for each team. Have students draw a food item for each of the five food groups on their drawing paper. Make sure they draw pictures only, no labels. Have everyone from Team A place their food pictures in the bag labeled "Team A" and everyone from Team B place their food pictures in the bag labeled "Team B."

Place the grocery bags labeled with the Five Food Groups on one side of the room and have the two teams of children line up on the other side of the room, as they would for a relay. Give each team their bag of food pictures. Have the first player from each team reach into their bag and grab one piece of paper, run to the five food group bags and place the picture of the food in the correct bag. Repeat until all of the pictures are placed.

Check to see that all of the pictures placed in each bag are in the correct food group. On the board, record tally marks for each team only for foods placed incorrectly. (It's easy to identify the teams based on the color of the drawing paper.) The team with the least number of tally marks wins.



Food Fractions

Preparation

Select the following Food Models to demonstrate one-quarter: waffle, chocolate candy bar, chicken pot pie, pizza (two slices = one-fourth of a pizza).

Select the following Food Models to demonstrate one-eighth: quiche, apple pie, pizza (each slice = one-eighth of a pizza).

Activity

Review basic fractions with the class ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Have students identify a Food Model that represents one-half; then one-fourth; then one-eighth. To make it more interesting, ask student to name a food that represents one-half, one-fourth, and one-eighth. Continue until all Food Models have been discussed. Assess by having individual students sort the Food Models according to the fractions they represent.

Additional Activity

Hand out large sheets of paper (11" x 17"). Have student fold the paper in three sections and label the first section " $\frac{1}{2}$," the second section " $\frac{1}{4}$," and the third section " $\frac{1}{8}$." Have students draw pictures of food demonstrating parts of the whole. For example, under " $\frac{1}{2}$," students may choose a peanut butter sandwich. In order to show one-half, have them draw the entire sandwich; then color in and circle the portion that clearly shows one-half of the sandwich.



Five Food Group Sort

Preparation

From the package of Food Models, remove all combination foods and those in the “others” category.

Activity

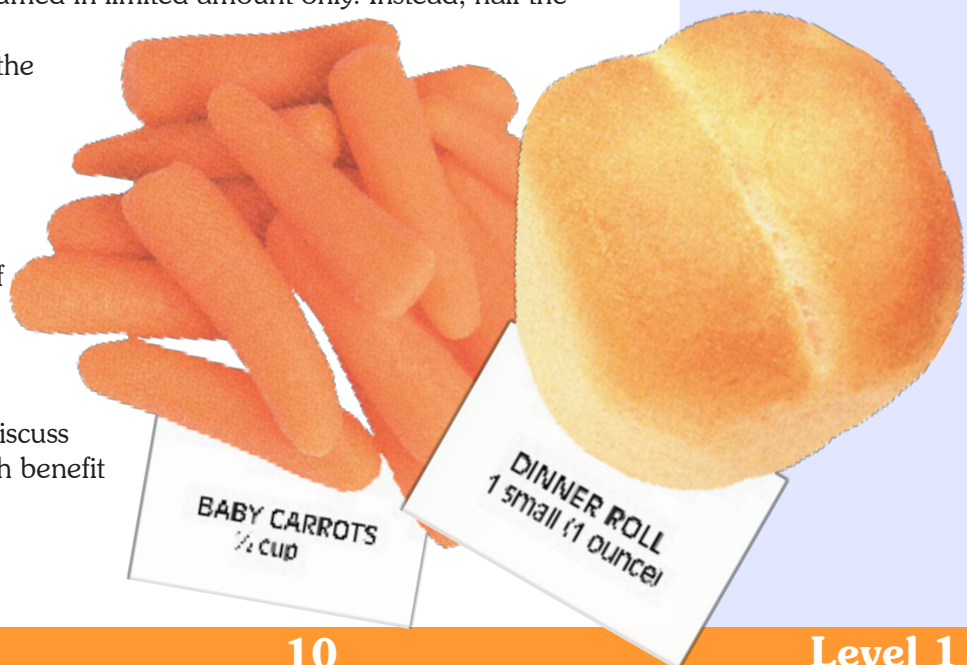
Distribute a Food Model to each student. While discussing each of the five food groups, have students with a Food Model from that group stand up and name their food. Tell students the health benefit of that group and ask students who are standing to point to the appropriate part of the body or to act out the health benefit.

Food Groups	Included Foods	Health Benefits
Dairy Group	Plain or flavored milk, cheese, yogurt	Builds strong bones and teeth
Protein Group	Meat, poultry, fish, peanut butter, eggs, dried beans, nuts	Builds muscles
Vegetables Group	Fresh, canned, dried, and frozen vegetables; 100% vegetable juice	Helps eyes see in the dark
Fruits Group	Fresh, canned, dried, and frozen fruits; 100% fruit juice	Helps heal cuts
Grains Group	Bread, cereal, rice, tortillas, crackers, noodles	Gives the body energy

Next, help students appropriately place the Food Model on a “MyPlate Activity Poster.” Point out that the different colored sections on the plate represent each food group. Explain that highly processed foods and foods high in fat, sugar and oil should be consumed in limited amount only. Instead, half the meal plate should consist of fruits and vegetables, half of the grains should be whole, and low fat protein and dairy foods should be consumed. In addition, emphasize the importance of physical activity as an essential part of a healthy lifestyle.

Additional Activity

Have students identify what they ate for their last meal. Discuss each food item and the health benefit of each.



Objective

Students will describe the benefits of eating a variety of nutritious foods.

Materials

Food Models, MyPlate Activity Poster (see inside front cover for details)

Objective

Students will collect, organize, and describe data.

Materials

Food Models, paper, pencils



Food Favorites

Preparation

Select pairs of Food Models similar to the following: cheddar cheese and mozzarella cheese, chocolate milk and white milk, white bread and wheat bread.

Activity

Copy the chart below on the board. Post the Food Models for cheddar cheese and mozzarella cheese on the chart. Remind students that mozzarella cheese is the cheese used in string cheese and on pizza.

Choice	Number of Students
Mozarella	
Cheddar	

Ask students to make an X in the box next to the cheese they prefer. When all students have marked their choice, count the results.

Ask students to make a version of the chart at their desks, replacing the Xs with symbols such as a square for cheddar and a string cheese stick for mozzarella.

Above their charts have them complete this sentence: "More students in our room chose _____ than _____."

Try the activity again, using foods from other food groups. (Post other Food Models, as previously selected.)

Additional Activity

Have a class food-tasting before conducting the survey.



Guess a Food

Preparation

From the package of Food Models, select only those foods from the fruit and vegetable groups.

Activity

Review food groups, focusing on foods found in the Fruits and Vegetables groups. Tape a selected Food Model from the Fruits or Vegetables group on the back of each student. Have the students discover the food by asking other students questions that can be answered with "yes" or "no."

Objective

Students will identify foods from the fruit and vegetable groups based on descriptions.

Materials

Food Models, tape



Fish Sticks by the Inch

Preparation

Select Food Models that are longer than they are wide for students to practice measuring. For example: granola bar, fish sticks, pork sausage, enchilada, celery, corn on the cob, cream cheese, rye crackers, and hot dog.

Activity

Discuss the importance of accurate measurement and demonstrate the process of measuring objects using customary and metric units. Divide students in pairs or groups of three. Hand out rulers, paper, and one Food Model per group. Have students divide paper vertically into three sections. At the top of the first section, ask students to write the word FOOD. In the second section, have students write the word INCH. In the third section, have students write the abbreviation CM. (To expedite this portion of the lesson, teachers may prepare and duplicate these sheets in advance.)

In their groups, have students draw a picture of their Food Models under the appropriate heading on their papers. Then ask students to accurately measure their Food Models and write down their measurements under the appropriate column on their papers. Have students take turns measuring and comparing their measurements within their groups.

Once a group is finished with a Food Model, have them pass it to another group, making sure that each group has the opportunity to measure each shape in inches and centimeters.

In a large group discussion, have students present their findings and compare answers. If desired, draw a large chart on the board and ask students to draw their Food Models and record their answers.



Let's Write a Story

Activity

Display the selected Food Model for students to see. Have them identify information about the food. For example: What color is it? What shape is it? Is it a liquid or a solid? Does it come from a plant or an animal? What food group is it in? Next have students supply information about the food from their personal experiences. For example: What does it taste like? What does it smell like? How do we eat it? (In a bowl, on a stick, with our hands?) Do you like it? What other foods do we commonly eat with this?

Ask students to dictate sentences for an essay as you write them on the board or chart paper.

Additional Activity

Repeat this activity with several Food Models and create a class book from the dictated essays.

Objective

Students will practice measuring using Food Models that are longer than they are wide.

Materials

Food Models, rulers (one per group or student), paper (one per student), pencils

Objective

Students will identify foods from the fruit and vegetable group based on descriptions.

Materials

Food Models

Objective

Students will research how various foods are incorporated into the diets of different cultures and plan a meal for a cultural celebration.

Materials

Food Models, cookbooks, Internet resources



Cultural Foods

Preparation

Prepare a list of suggested Internet sites to assist students in finding multicultural recipes and foods.

Activity

Divide students into groups of two or three. Distribute a Food Model to each group. Have them research using cookbooks, interviews, the Internet, or other resources to find out how their food is served or incorporated into the diets for several different cultures or countries.

If a specific cultural celebration is being studied, such as Kwanzaa, Chinese New Year, Cinco de Mayo, etc., use the Food Models to trigger a discussion on foods associated with that celebration and/or culture.

Using the Food Models, have students plan a meal for a cultural celebration, preferably one that is being studied at present.

Objective

Students will categorize foods into food groups.

Materials

Food Models



Food Model Go Fish

Preparation

From the collection of Food Models, select only foods that are clearly identifiable in each food group by omitting all combination foods and “others.”

Activity

This activity is designed to be used with a small group of students, such as a learning activity station.

Deal seven Food Models to each student. Place the remaining Food Models in the center of the table. If participants have two or more Food Models from the same food group, they may lay them down as a pair.

Taking turns, each participant asks the player to his/her right for all of the foods from a specific food group. For example, player A might say to player B, “Please hand me all of your Grains group foods.” If player B has a food from the Grains group, player B must give it to player A. If not, player A is told to “Go Fish” and draws a card from the deck of Food Models.

The game continues until a player is out of cards. The player with the most Food Models wins.





High Five for Food

Preparation

From the package of Food Models, remove all combination foods and those found in the “others” category. Download or purchase the "MyPlate Activity Poster" from Utah AITC.

Activity

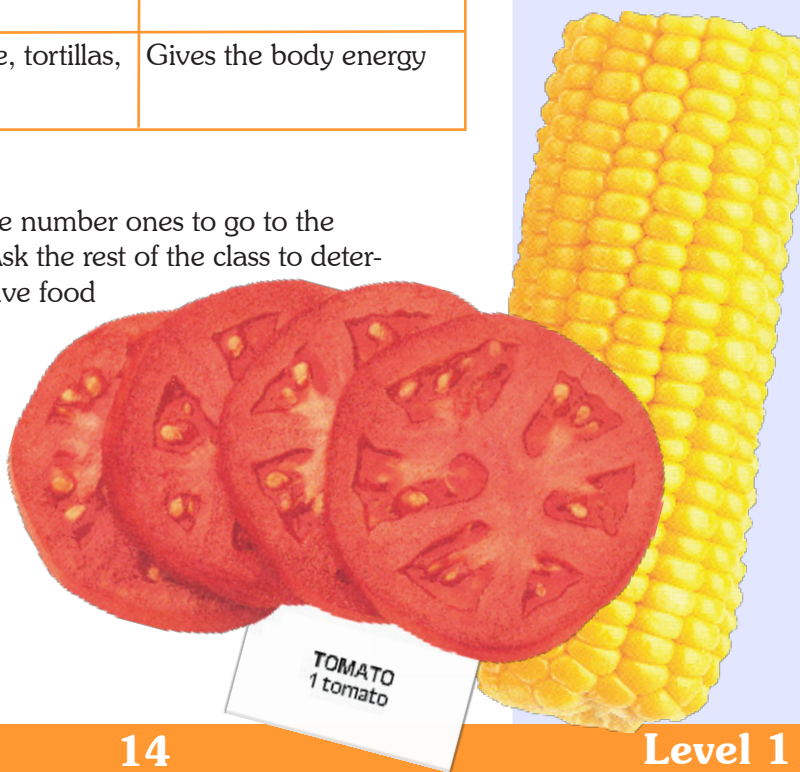
Distribute a Food Model to each student. Copy the chart below on the board or overhead while reviewing the food groups, one group at a time. While discussing each group, have students hold up the Food Model that belongs to that group.

Explain the key points students should think about when choosing their own plates are to add more vegetables, focus on fruits, make half your grains whole, choose a wide variety of proteins, and choose low or non fat milk.

Group Foods	Included Foods	Health Benefits
Dairy Group	Plain or flavored milk, cheese, yogurt	Builds strong bones and teeth
Protein Group	Meat, poultry, fish, peanut butter, eggs, dried beans, nuts	Builds muscles
Vegetables Group	Fresh, canned, dried, and frozen vegetables; 100% vegetable juice	Helps eyes see in the dark
Fruits Group	Fresh, canned, dried, and frozen fruits; 100% fruit juice	Helps heal cuts
Grains Group	Bread, cereal, rice, tortillas, crackers, noodles	Gives the body energy

Have students count off by fives. Ask all the number ones to go to the front of the class with their Food Models. Ask the rest of the class to determine if this group has something from all five food groups. If not, have students identify any missing food groups. Then have students discuss the health benefits that would be missing from any omitted food groups.

Repeat the process with groups two through five. Summarize by discussing the importance of having foods from all five food groups each day.



Objective

Students will describe the benefits of eating a variety of nutritious foods.

Materials

Food Models, MyPlate Activity Poster (see inside front cover for details)

Objective

Students will collect, organize, and display simple data by conducting a survey of various foods.

Materials

Selected Food Models



Who Likes That Food?

Preparation

Select the following Food Models: fresh pear, canned pears, apple, applesauce, plain milk, chocolate milk, whole wheat bread, white bread.

Activity

Show students the Food Model of the fresh pear. Tell students that you are going to have them respond to a question by marking their choices in a chart. Create the following chart on the board. Then ask the students, “Do you like fresh pears?”

Food	Yes	No	Never Tasted
Fresh Pears			
Canned Pears			

Invite the students to go to the board and place an “X” in the box next to their answer. Tally the results.

Next, show students the Food Model for canned pears and explain that they are made from fresh pears. Conduct another survey; this time, see how many students like to eat canned pears.

Ask students to look at the results of the survey about fresh pears and predict the results of the canned pears survey. On a sheet of paper, ask students to complete the following three sentences, filling in the blank with a number:

I think _____ students will like canned pears.

I think _____ students will not like canned pears.

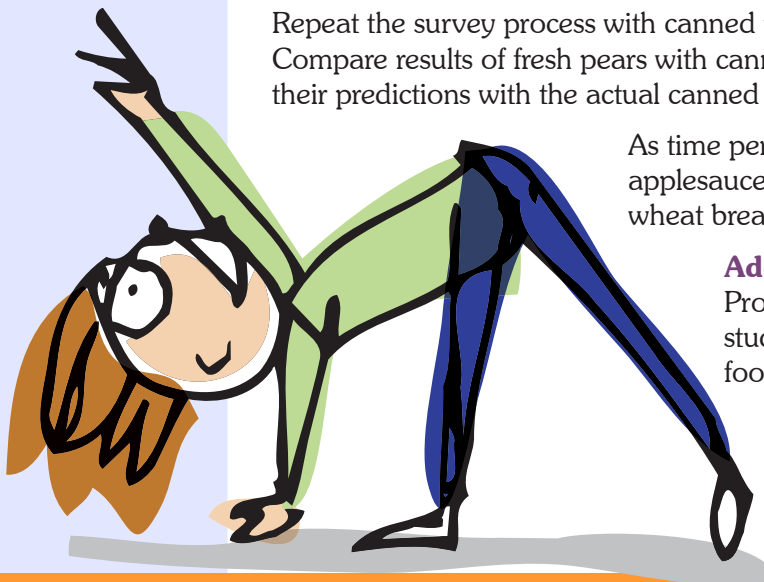
I think _____ students have not tasted canned pears.

Repeat the survey process with canned pears using the chart template above. Compare results of fresh pears with canned pears. Then have students compare their predictions with the actual canned pear results.

As time permits, repeat the process with: apple and applesauce; plain milk and chocolate milk; whole wheat bread and white bread.

Additional Activity

Provide an opportunity for food tasting for students who may have not experienced foods from the survey.



Level 2 (Grades 3–4)



Food Model Plate

Preparation

Create a large replice of MyPlate with colored sections and place on the wall or board in the classroom, or use the “MyPlate Activity Poster” (see inside cover for details). On each colored section, place the number of recommended servings for that food group – six for the orange Grains group, three for the blue Dairy group, three for the green Vegetable group, two for the red Fruit group, and two for the Protein Foods group. Select the Food Models that are not combination foods, e.g., beef, chicken, carrots, or potatoes; not chicken pot pie, beef stew, etc.

Activity

Review the five food groups and the health benefits they each provide:

Group Foods	Included Foods	Health Benefits
Dairy Group	Plain or flavored milk, cheese, yogurt	Builds strong bones and teeth
Protein Group	Meat, poultry, fish, peanut butter, eggs, dried beans, nuts	Builds muscles
Vegetables Group	Fresh, canned, dried, and frozen vegetables; 100% vegetable juice	Helps eyes see in the dark
Fruits Group	Fresh, canned, dried, and frozen fruits; 100% fruit juice	Helps heal cuts
Grains Group	Bread, cereal, rice, tortillas, crackers, noodles	Gives the body energy

From the pre-selected Food Models, have students take turns choosing Food Models and creating a balanced diet, by placing the models appropriately on the posted MyPlate. Highly processed foods and foods high in fat, sugar and oil should be consumed in limited amounts. Whole and unprocessed foods, along with a variety of fruits and vegetables, and low fat protein and dairy foods should be consumed most often. Discuss the health benefits of each food as students place them on the plate.

Assessment Activity

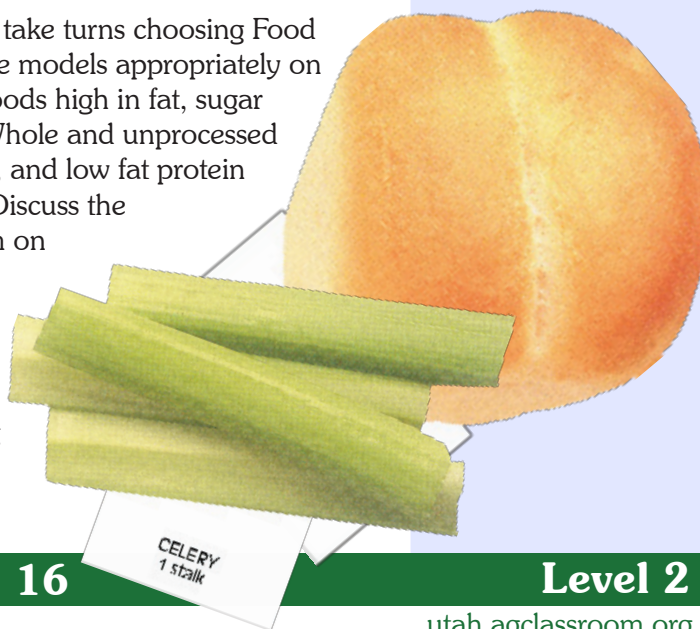
After completing this large group activity, have students create a replica of MyPlate on paper. Ask students to create a daily balanced diet by drawing their own food choices with appropriate serving sizes in the correct sections on the plate.

Objective

Students will identify foods within food groups and compare their personal eating habits with a healthy diet.

Materials

Food Models, MyPlate Activity Poster (see inside front cover for details), cards numbered with amount of daily servings recommended for each group (6, 3, 3, 2, 2), sticky tack



Objective

Students will correctly identify foods within food groups.

Materials

Food Models, prepared Bingo cards (one card for each student), dry erase markers or pencils (one for each student)

Objective

Students will identify food groups and foods within food groups.

Materials

Food Models or Food Group Food Cards, large bulletin board, push pins, 42—5" squares of paper numbered 1-42



Five Food Group Bingo

Preparation

Download Bingo cards from http://school.fueluptoplay60.com/documents/nutrition-education/lessons/food-models/bingo_card.pdf. It is recommended that these cards be laminated so they may be reused. If cards are laminated, students should use dry erase markers so that the card may be easily cleaned.

Activity

Review the types of foods found in each of the five food groups, combination foods, and those foods defined as “others.” Hand out the Bingo cards and dry erase markers or pencils. Randomly select a Food Model. Have students write the name of that food in an appropriate food group square on their cards. For example, if a muffin is shown, students would write “muffin” in one of the Grain Group squares on their cards. The first player to fill in five squares horizontally, vertically, or diagonally wins. As a check, have the winner read off the names of the winning food/food groups squares.



Food Group Concentration

Preparation

Select 42 Food Models (six from each of the five food groups, six combination foods, and six “others”). Randomly mount Food Models on a bulletin board. Cover each Food Model with a square of numbered paper.

Activity

Divide students in two teams, Team A and Team B. Have the first player from Team A call out two numbers. Uncover the foods with those numbers. If the foods are from the same food group, for example, cheese and yogurt, the team receives the two Food Models. If the foods are from different food groups, the foods are covered again. Switch teams and have the first player from Team B call out two numbers. Continue play until all foods are matched. The team with the most Food Models wins.





Fishing for Foods Game

Preparation

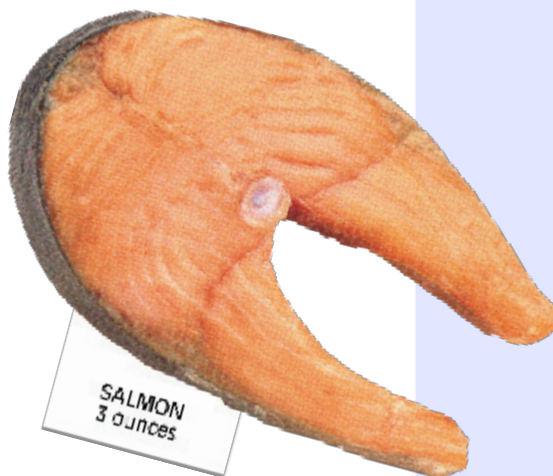
From the collection of Food Models, select only foods that are clearly identifiable in each food group by omitting all combination foods and “others.” Fasten a magnet onto a toy fishing pole or dowel with attached string. Attach a paper clip to each selected Food Model. If desired, set up an inflatable swimming pool and fill with prepared Food Models with paper clips.

Activity

Review food groups and foods within groups. Have students take turns “fishing” and correctly naming the food and its food group. Students may keep the Food Model if they answered correctly. The person with the most Food Models at the end of the activity is the winner. This may be used as a learning activity station.

Additional Activity

Rather than keeping Food Models, students may be required to appropriately place the Food Model on a “MyPlate Activity Poster.”



Objective

Students will identify food groups and foods within groups.

Materials

Food Models, toy fishing pole or dowel with attached string, magnet, paper clips, optional inflatable swimming pool



Food Model Go Fish

Preparation

From the collection of Food Models, select only foods that are clearly identifiable in each food group by omitting all combination foods and “others.”

Activity

This activity is designed to be used with a small group of students, such as a learning activity station.

Deal seven Food Models to each student. Place the remaining Food Models in the center of the table. If participants have two or more Food Models from the same food group, they may lay them down as a pair.

Taking turns, each participant asks the player to his/her right for all of the foods from a specific food group. For example, player A might say to player B, “Please hand me all of your Grains group foods.” If player B has a food from the Grains group, player B must give it to player A. If not, player A is told to ‘Go Fish’ and draws a card from the deck of Food Models.

The game continues until a player is out of cards. The player with the most Food Models wins.

Objective

Students will categorize foods into food groups.

Materials

Food Models

Objective

Students will identify specific nutrients and find foods rich in those nutrients by using Food Models

Materials

Food Models



Becoming Label Literate

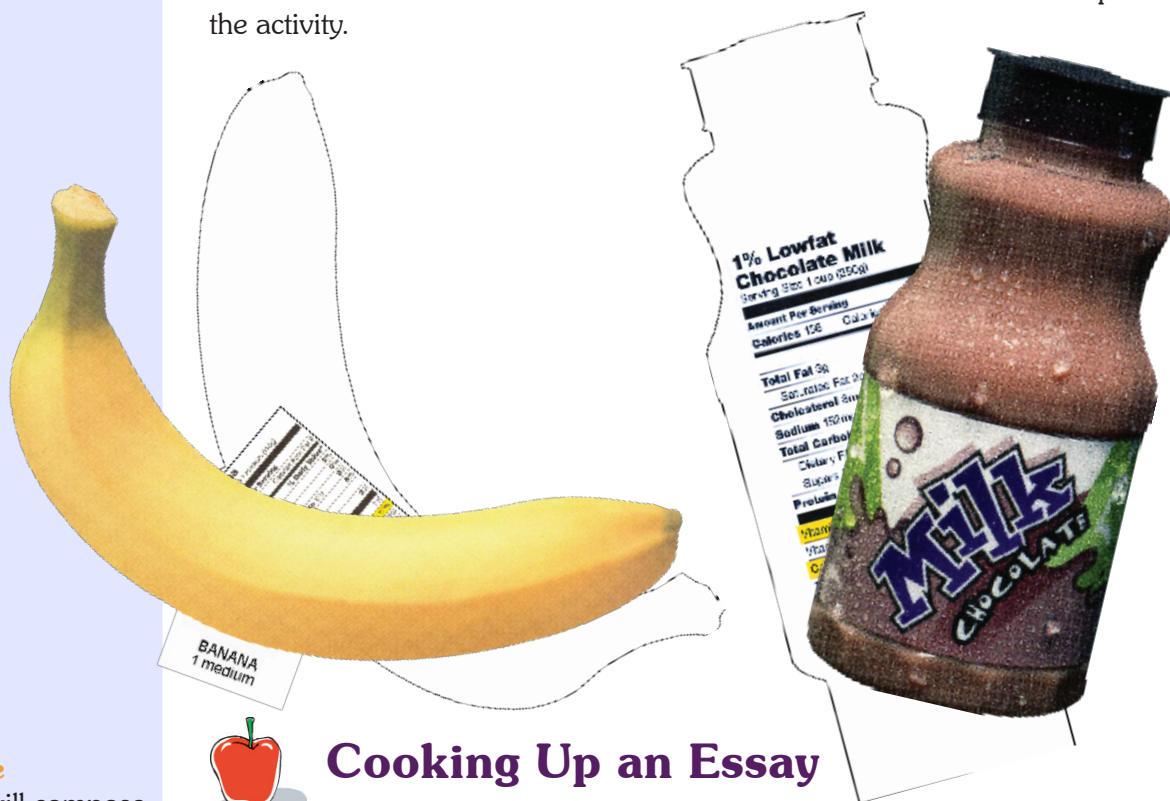
Preparation

Have two Food Models available for each student.

Activity

Review with students the information found on the backs of the Food Models, relating it to the information found on nutrition labels. Discuss the importance of federal government legislation that determines the information included on food packages. As consumers, this information allows us to make wise decisions.

Hand out two Food Models to each student. Using the nutrition information found on the backs of the Food Models, introduce one key nutrient and its function. Have students locate that nutrient, such as calcium, on both Food Models. Have them rank the two foods for calcium by holding the food that is higher in calcium above the food that is lower in calcium. Ask students to look around the room. Is there a pattern? Have students practice ranking the same two Food Models for several nutrients. Then have them trade Food Models and repeat the activity.



Objective

Students will compose a written composition by gathering and organizing information.

Materials

One Food Model that is familiar to students



Cooking Up an Essay

Activity

Post a Food Model that is familiar to students. Ask students what they know about this food. List responses on the board. Suppose you selected the Food Model for American cheese. Information by students may include its color, texture, shape, connection to milk, etc. Then help students organize information into logical categories. Finally, as a class, organize the information into paragraphs.



Food Fractions and Candy Bar Math

Preparation

Select the following Food Models to demonstrate one-half: turkey sandwich, peanut butter and jelly sandwich, croissant, bagel, hot dog roll, pears (canned), dinner roll, English muffin, pita bread, burrito.

Select the following Food Models to demonstrate one-quarter: waffle, chocolate candy bar, chicken pot pie, pizza (2 slices = $\frac{1}{4}$ of a pizza).

Select the following Food Models to demonstrate one-eighth: quiche, apple pie, pizza (each slice = $\frac{1}{8}$ of a pizza).

Post selected Food Models on a bulletin board or chalkboard.

Activity

Read *The Hershey's Fractions Book* to the class. Hand out fraction tiles or chocolate fraction bars downloaded from the TeachNet website at <http://www.teachnet-lab.org/miami/2005/linero2/Lesson%206%20fraction%20bar.htm>. Using fraction tiles or chocolate fraction bars, review commonly used fractions. Ask students to show $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{8}$ with their individual tiles or fraction bars. Then, pose a fraction to students and ask them to identify a Food Model that represents that fraction. (Or, name a food and ask students what fraction it represents.)

Have students draw their own example of a food fraction and label it appropriately. Display in the classroom.

Additional Activities

For additional lesson plans and activities using Hershey's chocolate bars and fractions, check out the following websites:

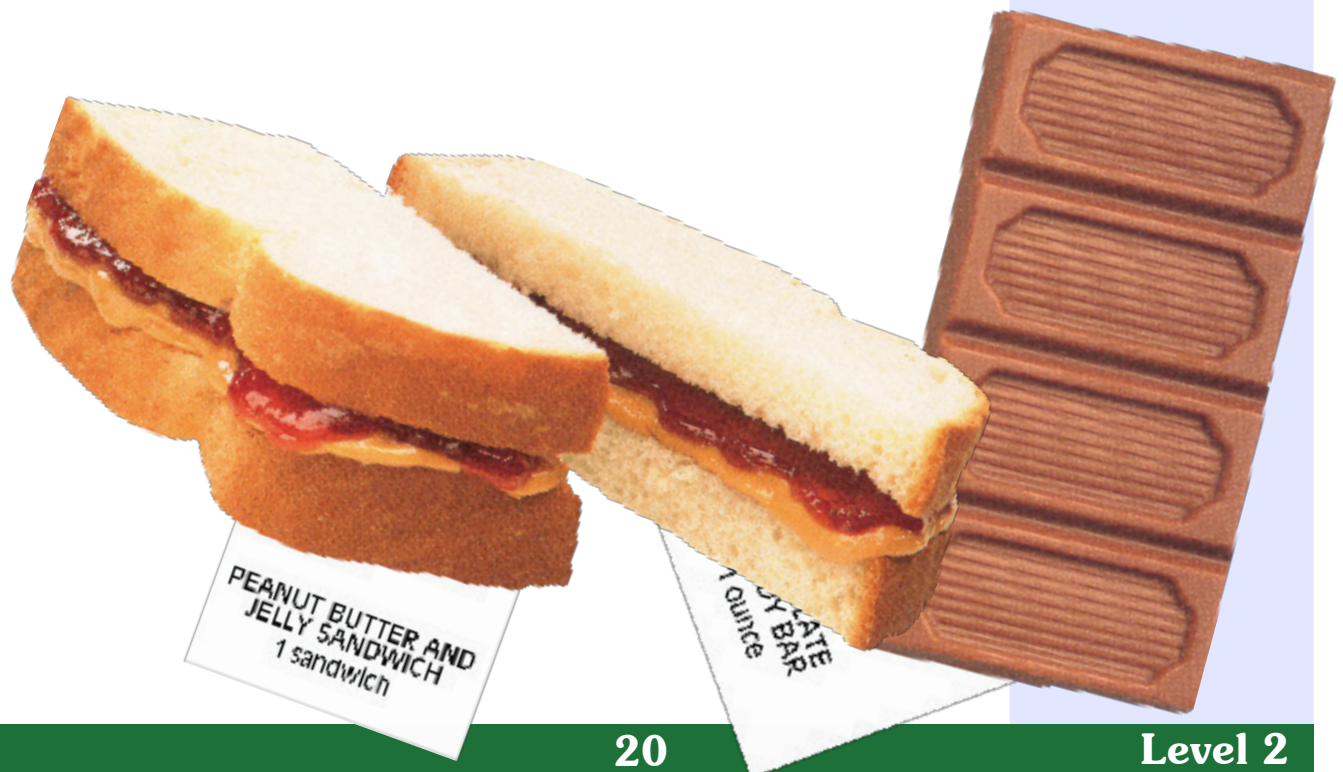
- <http://www.theteacherscorner.net/lesson-plans/math/miscellaneous/hershey.htm>
- <http://www.teachnet-lab.org/miami/2005/linero2/Lesson%206%20Math.htm>

Objective

Students will use Food Models to communicate parts of a whole.

Materials

Food Models, *The Hershey's Fractions Book* (ISBN-10: 0966244524), fraction tiles or chocolate fraction bars (one per student)



Objective

Students will describe the benefits of eating a variety of nutritious foods.

Materials

Food Models, rulers, paper, pencils



Food Comes in All Shapes

Preparation

Select Food Models that are square, rectangular or triangular. Examples of squares include Muenster cheese, lasagna, American cheese, Swiss cheese, graham crackers; rectangles include rye crackers, fish sticks, cream cheese, granola bar; and triangles include chicken pot pie, pizza, watermelon, quiche.

Activity

Review the process of determining accurate measurement and the perimeter of figures. Divide students in pairs or groups of three. Hand out rulers, paper, and one Food Model per group.

Have students divide paper vertically into three sections. At the top of the first section, ask students to write the word SQUARE and draw a picture of a square. In the second section, have students write the word RECTANGLE and draw a picture of a rectangle. In the last section, ask students to write the word TRIANGLE and draw a picture of a triangle.

In their groups, have students draw their Food Models under the appropriate heading on their papers. Then ask students to accurately measure their Food Models and compare their measurements within their groups. (Use customary, metric, or both measurements, depending on your area of study.) Then have students calculate the perimeter of the Food Models. Students should label their drawings with their measurements and calculations.

Once a group is finished with a Food Model, have them pass it to another group, making sure that each group has the opportunity to measure and calculate the perimeter of each shape.

In a large group discussion, have students present their findings and compare answers. Draw a large chart on the board and ask students to draw their Food Models and record their answers.

Additional Activity

Ask students what foods come in other shapes that they may know. Since the Food Models are two dimensional, “circle” would also include spherical foods as well. When students identify a circle, have examples of some other “circular” foods, such as cookies, round crackers, oranges, etc. The teacher might choose to use one of these round foods as a reinforcing snack at the conclusion of the lesson.





Sizing Up Food

Preparation

Create packets of 10–12 Food Models.

Activity

Discuss the importance of accurate measurement and demonstrate the process of measuring objects using customary and metric units.

Place students in small groups. Hand out prepared packets of Food Models, paper, and pencils to each group. First, have students choose a Food Model from their packet. Ask them to estimate the length of their Food Model using both customary and metric measurements. Then, have each student accurately measure the Food Models in their packets. How close were the estimates to the actual measurements? Finally, have students compare actual measurements with other members in their group to check for accuracy.

Option

Create a learning station activity for students to use independently after a lesson on measuring length using customary and metric units.

Note

Many Food Models are irregular shapes. Students may become frustrated if they do not understand how they are to measure each model. In defining what accurate measurement means, teachers should be careful to explain that students should measure the widest part of the model.



Congruent Comrades

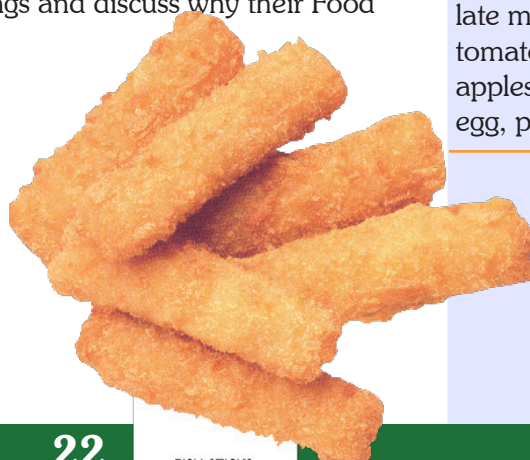
Activity

Review the concept of congruence with students. While most Food Models are not entirely congruent, students will be able to determine those models that are very close to being congruent.

Hand out a Food Model to each student. Tell them their mission is to find a “Congruent Comrade,” another person in the classroom, with a Food Model that is congruent to theirs. Explain that the Food Models may not be exact, but they will be closely congruent. Check for understanding.

Have students continue looking for “Congruent Comrades” until they have discovered all Food Models that are congruent to theirs.

Conclude by having all groups share their findings and discuss why their Food Models are congruent.



Objective

Students will measure length of Food Models using customary and metric measurements.

Materials

Food Models, rulers (one per student), paper, pencils

Objective

Students will determine whether two polygons are congruent.

Materials

Choose Food Models that are closest to being congruent. For example: 1) bagel, ice cream (soft serve), English muffin; 2) beverages in glasses, such as milk, chocolate milk, buttermilk, tomato juice; 3) applesauce, scrambled egg, pasta, navy beans

Objective

Students will use Food Models to illustrate line of symmetry.

Materials

Food Models

Objective

Students will collect, organize, and interpret data by creating a chart of familiar/unfamiliar foods.

Materials

Food Models, graph paper (one sheet per student), pencils



Symmetry, Anyone?

Preparation

Choose a selection of symmetric Food Models, such as the pancake, bagel, container of yogurt, waffle, glass of milk, grapefruit, American cheese, and ground beef patty. Then choose items that are nonsymmetric, such as the fried egg, egg noodles, pork chop, banana, hash browns, and broccoli.

Activity

Mix the Food Models and post them on the board. Discuss the concept of symmetry using objects around the classroom. Then ask for a student volunteer to come to the board and choose a Food Model that has symmetry. Have the student draw the line of symmetry on the model with their finger. Have a volunteer identify a Food Model that is not symmetrical. Continue with this activity until students have demonstrated sufficient understanding.

Using the posted Food Models, in addition to others, have students sort foods into symmetric and nonsymmetric groups.



Food Model Survey

Preparation

Choose several Food Models that may be unfamiliar to students, such as Muenster cheese, navy beans, quiche, salmon, squash, etc.

Activity

Post the Food Models that have been set aside. Ask students to identify a Food Model they have never tasted. Choose three of the foods named to conduct a survey with the class.

On the board, create the following chart:

	I have tasted it	I have not tasted it
Food 1		
Food 2		
Food 3		

Of the three foods chosen, ask students to predict the foods that most students have NOT tasted. Have students set their predictions aside.

Next, ask students to take turns coming up to the board and marking an X or tally mark in the appropriate boxes to complete the survey. Then total the responses as a class.

Discuss with the students their reaction to the results. Are they surprised by the results? Why or why not? Were their predictions accurate?

Have students create a bar graph to display the data from the survey.



Can You Find the Pattern?

Activity

Use Food Models to create patterns for students to discover. Begin with the following models in order: grapefruit, lasagna, orange, bread. Have students continue the pattern by asking what the next item would be (any circular food). Then have students identify the rule/description (circle, square, circle, square, etc.).

Another pattern to demonstrate may include the following: milk, steak, yogurt, turkey. The next item would be a food from the Dairy Group. The rule/description would be dairy, protein, dairy, protein, etc.

Other sample patterns may include the use of foods that are different colors, such as white, white, brown, brown, etc. Have students create patterns for their classmates to discover, describe, and extend.



Food Model Mobiles

Preparation

Ask students to bring in magazines for cutting up and/or food wrappers from various fruits and vegetables, such as individual serving packages of apple slices, canned peaches, baby carrots, etc. Many of these food packages may be collected from school lunch items.

Activity

Using Food Models, review the daily nutritional requirements for fruits and vegetables for children ages seven to ten: http://www.nutritionexpedition.com/pdf/educators/arianna/HCBLM2_FiveFoodGroup.pdf.

Explain the importance of “balance” in their diets. They will use the concept of “balance” as they work together to hang the fruits and veggies on their mobiles.

Divide students into groups of two to three students. Have students create a “Vary Your Veggies” or “Focus on Fruits” mobile in their groups. Each group should select the food wrappers or magazine pictures that represent the appropriate foods and amount of servings in order to meet the daily nutritional requirements for their chosen project—fruits or veggies.

Have students cut pictures from magazines, glue them onto construction paper, and cut them out. Students may also be encouraged to draw items using construction paper or cardstock and markers. Help students punch holes into their food pictures and tie or tape string onto their items.

Students should work together to balance their mobiles. Point out that just as it is important to “balance” their works of art, it is equally important to “balance” their diets by eating the recommended amount of fruits and vegetables each day.

To conclude, have groups of students share their projects. Display mobiles.

Objective

Students will recognize, describe, and create patterns through the use of Food Models.

Materials

Food Models

Objective

Students will create a mobile that represents the daily intake of fruits or vegetables.

Materials

Food Models, food wrappers or magazines, hangers (one for each 2-3 students), yarn or ribbon, scissors, construction paper and/or cardstock, markers or crayons, glue, tape or hole punch



Objective

Students will correctly identify fruits and vegetables from nutritional information.

Materials

Food Models, tape

Objective

Students will research how various foods are incorporated into the diets of different cultures and plan a meal for a cultural celebration.

Materials

Food Models, cookbooks, Internet resources



Twenty Questions

Preparation

Select Food Models from the Fruits and Vegetables food groups.

Activity

Tape a Food Model on the back of a student volunteer. Turn the student around and show the Food Model to the remaining students. Have the volunteer ask questions about the fruit or vegetable that can be answered with a “yes” or “no.”



Cultural Foods

Preparation

Prepare a list of suggested Internet sites, like <http://www.foodtimeline.org>, to assist students in finding multicultural recipes and foods.

Activity

Divide students into groups of two or three. Distribute a Food Model to each group. Have them research using cookbooks, interviews, the Internet, or other resources to find out how their food is served or incorporated into the diets for several different cultures or countries.

If a specific cultural celebration is being studied, such as Kwanzaa, Chinese New Year, Cinco de Mayo, etc., use the Food Models to trigger a discussion on foods associated with that celebration and/or culture.

Using the Food Models, have students plan a meal for a cultural celebration, preferably one that is being studied at present.





Name the Food Group Sandwich

Preparation

Download sandwich template <http://utah.agclassroom.org/files/uploads/activities/sandwichtemplate.pdf>. Reproduce copies of templates on corresponding colored paper, e.g. brown for bread, yellow for cheese, etc.

Activity

Display the “MyPlate Activity Poster.” Review the five food groups and the foods that belong in that group, reminding students that highly processed foods and foods high in fat, sugar, and calories (e.g., apple pie) should be eaten in very limited amounts, while whole and unprocessed foods should be eaten most often. Check student understanding by having volunteers choose a Food Model and demonstrate where those foods belong on MyPlate.

Distribute uncut sandwich pieces and a paper plate to each student. Instruct students to label each sandwich piece according to the correct food group. Have students cut out sandwich pieces and build their own sandwich. When the sandwich is complete, staple at the top to keep the pieces together. Attach sandwich to the paper plate by gluing the bottom piece of the bread to the plate.

Language Arts Connection

Ask students to pretend they are a chef at Café MyPlate and describe how to make their sandwich and why a customer should order it. Extend this activity by having students write an acrostic poem using the words nutrition, health, or MyPlate. For information on acrostic poetry, see <http://readwritethink.org/materials/acrostic/>.

Objective

Students will describe how to make a healthy sandwich, make a case to persuade someone why they should eat it, and create an acrostic poem.

Materials

Downloaded sandwich template pieces (2 bread, 1 ham, 1 cheese, 1 tomato, 1 lettuce per student), 5-inch paper plate (one per student), stapler, glue, scissors, Food Models, MyPlate Activity Poster (see inside front cover for details)



TV No-trition

Preparation

Have students watch a 30-minute children’s television program before this activity and write down every food item advertised during that period. Incorporate their research into this activity. The program should be recorded and previewed to ensure sufficient and appropriate content.

Activity

Display a variety of Food Models from the five food groups and “others” category. Ask students which foods they commonly see advertised on television—especially the shows aimed for students their age. Write responses on the board. Have students identify to which food group the highly advertised food belongs. Discuss their findings. Working in small groups, have students choose a Food Model from one of the five food groups. Have each group create and act out an advertisement for chosen food.

Objective

Students will analyze TV ads, then create and act out an ad for a chosen Food Model

Materials

Food Models, a pre-recorded 30-minute television show with commercials



CORN FLAKES
1 ounce

Objective

Students will review food groups and identify the major nutrients and health benefits associated with each group.

Materials

Food Models, MyPlate Activity Poster

Objective

Students will use fractions to communicate parts of the whole.

Materials

Food Models, unlined white paper, pencils, colored pencils



Putting Food in Its Place

Preparation

Display a "MyPlate Activity Poster." Remove Food Models from the combination foods and "others" categories. Display the remaining Food Models on a bulletin board or chalkboard. Create a chart as follows:

Group Foods	Nutrient	Health Benefits
Dairy group	Calcium	Builds strong bones and teeth
Protein group	Protein	Builds muscles
Vegetables group	Vitamin A	Helps eyes see in the dark
Fruits group	Vitamin C	Helps heal cuts
Grains group	Fiber	Healthy digestive system

Activity

Have students take turns locating foods by asking the following types of questions: "Find a food in the Grains group. What is the food? What major nutrient does it provide?" Once the student has chosen the Food Model and answered the questions correctly, have them place the Food Model in the correct section on the MyPlate Activity Poster, indicating its food group. Highly processed foods and foods high in fat, sugar and oil should be consumed in limited amounts. Whole and unprocessed foods, along with a variety of fruits and vegetables, and low fat protein and dairy foods should be consumed most often. (This may also be done in small groups or in teams.)



Make the Fraction Whole

Preparation

Select food models that represent fractions, such as waffle ($\frac{1}{4}$), hot dog roll ($\frac{1}{2}$), quiche ($\frac{1}{8}$).

Activity

Have students select a Food Model. Have them trace the shape of the Food Model and draw the missing part of the food item to make it whole. Then have them label the fraction of the food included in the Food Model and the fraction of the food that they drew. For example, if they chose pizza, they would trace the existing Food Model and label it as $\frac{1}{4}$. Then they would draw the rest of the pizza and label that portion $\frac{3}{4}$. Allow students to color their drawings. Post in the classroom.





Food Gives Me Energy

Preparation

Select Food Models for American cheese, whole-wheat crackers, and an apple. Write these food names on the board and the amount of energy provided (calories) from each food. (On the back of each Food Model is nutrition information in a label-type format. One of the items listed on the label is “calories,” meaning a measure of energy. We all need energy to keep our bodies functioning and for our activity. Children also need energy from calories for growth. In this activity, be sure to focus on food as energy-fueling fun and the importance of being active. Discussing dieting and calorie counting at this age can contribute to the development of eating disorders and other health problems.)

Activity

Display the selected Food Models and their food names on the board. Ask the students if these foods would be a good after-school snack and why. Have students total the calories for this snack (276).

Ask three students to act out for the class the following after-school activities: watching TV, walking the dog, and playing basketball. Have the class predict which activity uses the most, middle, and least amount of energy in one-half hour. Record this information on the board. Reveal to students that on average, these activities use the following: watching TV—1 calorie per minute, walking the dog—3 calories per minute, playing basketball—6 calories per minute.

Have students calculate how many minutes of each activity the after-school snack would fuel. (276 minutes [4.6 hours] of TV; 90 minutes [1.5 hours] of walking the dog; 45 minutes [.75 hour] of playing basketball.)

Conclude by discussing the importance of healthy foods that provide energy for active, growing bodies.



MyPlate Portions

Preparation

Have students record all the food they eat in one day prior to doing this activity.

Activity

Have students write in the foods they have eaten in the appropriate area of the MyPlate coloring sheet. Highlight the Food Models of several common foods that students might have eaten. Point out that the portion size of the Food Model is one serving of that food. Let students browse the Food Models to observe the portion sizes of some of the foods they have eaten in the past day. Have them try to recall how much of each food they ate, and if it was more or less than a one-serving portion. They may record how many servings next to their food log on their MyPlate coloring sheet.

Additional Activity

Show students the calorie information on the back of the Food Models. Remind them that those are the calories for single servings of each food. Have them calculate the amount of calories that would be in two or three servings of the foods they have eaten.

Objective

Students will determine the relationship between food intake and energy.

Materials

Food Models

Objective

Students will correlate Food Model portion sizes with MyPlate, estimating differences between their own diet and actual portion sizes.

Materials

Food models, copies of the MyPlate coloring sheet (<http://www.choosemyplate.gov/downloads/MyPlate/ColoringSheet.pdf>)

Objective

Students will create a bar graph from collected data.

Materials

Food Models, graph paper, pencils



Graphing Favorite Dairy Foods

Activity

Lay out the Food Models on a table. Review the importance of eating dairy foods that provide calcium and other nutrients for developing strong bones. Ask students to brainstorm foods from the Dairy Group and list on the board. (If students need prompting, ask their favorite ice cream flavor, favorite cheese, or yogurt.) Once a list is compiled, choose volunteers to take a few minutes to look through the Food Models for foods from the Dairy Group that were not included on their list. Add any other dairy foods to the list.

Then go through the list asking students to raise their hands if they like each item. Next to each food, write the number of students who indicated they liked it.

Ask each student to choose three of their favorite Dairy Group foods and create a bar graph showing how many classmates also liked these three foods. Post graphs around the room.

Follow up this activity by having a “dairy-tasting party.” Choose three or four dairy products for the students to taste. If you have access to new flavors of milk, such as banana or orange, make those available. Try some new or unusual flavors of yogurt or mild-flavored cheeses, such as Havarti or Provolone. Take a poll at the end of the party and add these to your class list.

Objective

Students will identify and describe measurable attributes of objects and units of measurement.

Materials

Food Models



What's a Gram?

Activity

Give each student a Food Model from the Protein Group. The serving size in ounces and grams is listed. Ask students to calculate how many grams are in an ounce. Compare their answers. (1 ounce = 28 grams)

Give each student a Food Model for a food with the serving size of $\frac{1}{2}$ cup. (For example, egg noodles, strawberries, and tuna salad.) Explain that $\frac{1}{2}$ cup of different food items can weigh different amounts. Ask each student to read the name of their Food Model out loud and state how many grams are in a $\frac{1}{2}$ cup serving. Ask students to listen for the food which weighs the most and the food that weighs the least. Discuss what they discover.

Give each student three Food Models. Ask them to determine the total grams of protein in these three foods.

Give students several Food Models and ask them to rank the foods from highest to lowest based on grams of carbohydrates. (Milk and fruit contain natural sugars. Food labels do not distinguish between natural and added sugar.) Discuss findings.





160,000 Ways to Write a Story

Preparation

Make at least two copies of the hero, villain, and setting strips, located in Appendix A. Make sure there are enough strips for all students in the class. Begin by cutting out the hero heading strip. Tape or glue onto an envelope; then cut apart the hero slips and place in the envelope. Do the same with the villain and setting strips. There will now be three envelopes that are labeled and ready to use. Spread out Food Models on a table.

Activity

Discuss with students the importance of making healthy choices on a daily basis.

Explain to students that they will be writing a creative story that focuses on the importance of healthy eating. If necessary, review basic literary elements, such as characters (antagonist/protagonist), setting, and plot.

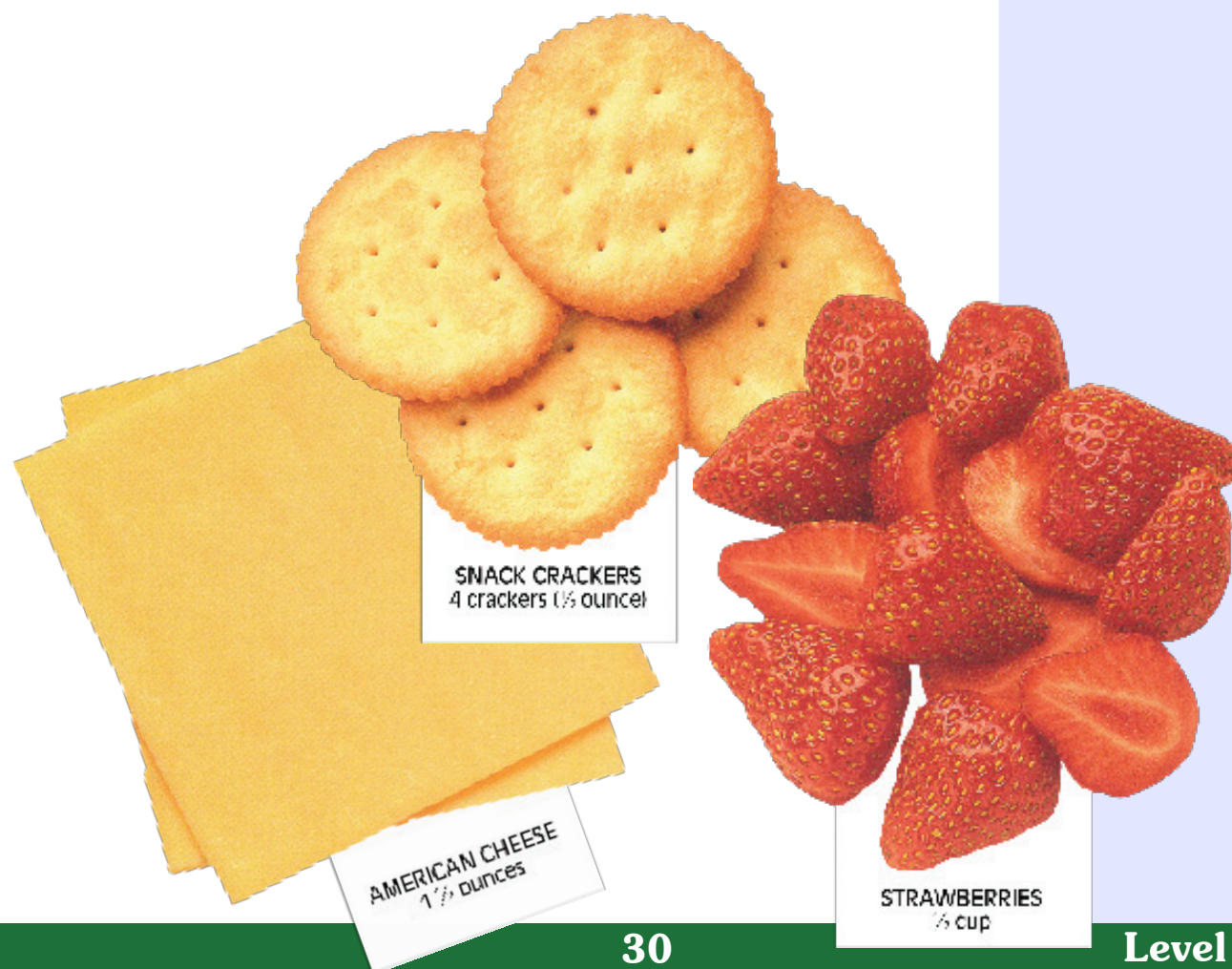
Have students begin by choosing a slip from the “hero” envelope. Ask them to write the name of their hero on a sheet of paper or index card. Collect all hero slips. Repeat with the remaining envelopes. Students will also need to choose a Food Model which should be the basis for their conflict. Encourage students to use creativity and have fun with their stories. Remind students that these stories must focus on making wholesome food choices while fighting the evils of unhealthy snacking.

Objective

Students will write a creative story using a chosen Food Model.

Materials

Prepared slips from Appendix A with hero, villain, and setting; three envelopes; tape or glue; Food Models; paper; pencils



Level 3 Table of Contents (Grades 5–6)

Objective

Students will be able to modify a meal to include foods from the five food groups.

Materials

Food Models, lunch bags (one for each student)



Brown Bagging It

Preparation

Place five to seven Food Models in each lunch bag, but choose foods from only four of the groups. Do not use combination foods for this activity. For example, one bag might contain milk, celery, carrots, an apple, potato chips, and two slices of whole wheat bread; a choice from the Protein Group is missing.

Activity

Discuss that a healthy diet requires that we eat foods from **each** of the food groups. Review the foods included in each group and the key nutrients supplied by each food group. Also review the “others” category (those foods that do not contain enough nutrients to fit into any of the five food groups). A general rule in creating a balanced meal is to eat two grains and at least one food from each of the other food groups. Review instructions for reading food labels on the back of the food models.

Distribute a lunch bag to each student and indicate that each bag is missing a food from one of the food groups. Students determine which food group is missing from their bag, then exchange foods with each other until they have a food from each of the five food groups.

Check for understanding by asking students to hold up all foods in their bag from the Dairy Group. Continue through the remaining food groups.



Spotting Food Patterns

Objective

Students will use Food Models to recognize, analyze, and create patterns.

Materials

Food Models

Activity

Use Food Models to create patterns for students to discover. Begin with the following models in order: grapefruit, lasagna, rye crackers, orange, bread. Have students continue the pattern by asking what the next item would be (any rectangular-shaped food). Then have students identify the rule/description of the pattern (circle, square, rectangle, circle, square, rectangle, etc.).

Another pattern to demonstrate may include the following: milk, steak, carrot, yogurt, turkey. The next item would be a food from the Vegetable Group. The rule/description would be dairy, protein, vegetable, dairy, protein, vegetable, etc.

Other sample patterns may include the use of foods that are liquids or solids. Have students create patterns for their classmates to discover, describe, and extend.





Food Comes in All Shapes

Preparation

Select only Food Models that are square, rectangular, or triangular. Examples for squares include Muenster cheese, lasagna, American cheese, Swiss cheese, and graham crackers; rectangles include rye crackers, fish sticks, cream cheese, and granola bar; triangles include chicken pot pie, pizza, watermelon, and quiche.

Activity

Review measuring techniques and formulas for calculating perimeter and area, as needed. Divide Food Models among students making sure that each student (or group of students) receives a square, rectangular, and triangular food. Depending on the number of Food Models or ability of students, this activity may either be done in small groups, or the Food Models may be passed from student to student when finished.

Have students measure the Food Models and calculate the perimeter of the shape.

Objective

Students will determine perimeter and area of square, rectangular, and triangular food models.

Materials

Food Models, metric rulers, calculators (optional)



Five Food Group Bingo

Preparation

Download Bingo cards from http://school.fueluptoplay60.com/documents/nutrition-education/lessons/food-models/bingo_card.pdf. It is recommended that these cards be laminated so they may be reused. Students may use dry erase markers so that the card may be easily cleaned.

Activity

Review the types of foods found in each of the five food groups, combination foods, and those foods defined as “others.” Hand out the Bingo cards and dry erase markers or pencils. Randomly select a Food Model. Have students write the name of that food in an appropriate food group square on their cards. For example, if a muffin is shown, students would write “muffin” in one of the Grains Group squares on their cards. The first player to fill in five squares horizontally, vertically, or diagonally wins. As a check, have the winner read off the names.

Objective

Students will correctly identify foods within food groups.

Materials

Food Models, prepared Bingo cards (one card for each student), dry erase markers or pencils (one for each student)



Objective

Students will be motivated to eat healthy foods through participation in a class football game. (Students will gain yardage on a class football field when they eat healthy foods.)

Materials

Green bulletin board paper, markers, one paper football cutout labeled “Physical Activity,” one paper football cutout labeled “Nutritious Snacks,” “Post-It” glue or sticky tack, nutrition slips, activity slips, box for completed slips, pencils

Objective

Students will identify their favorite foods and analyze food labels.

Materials

Food Models, magazines, food labels from various foods, scissors, cardstock, glue



Get Into the Game

Preparation

Cover a bulletin board or a wall with green paper. Add white yardage lines and markers to create a miniature football field, including end zones and goal posts. Write your class name or room number in the end zones. An optional activity is to design a class logo for the 50-yard line. Laminated poster board works well for this activity.

Set up a place where students can fill out:

- Activity slips documenting a physical activity they participated in today or yesterday and about how long they did it.
- Nutrition slips documenting one snack they ate today or yesterday.

Activity

Kick off the activity by discussing the importance of daily exercise and healthy snacks.

Set the rules of the game by establishing yard values for healthy activities and snacks. For example, a combined class total of 20 hours of physical activity may equal 10 yards, or a combined class total of 10 Dairy Group snacks may equal 10 yards. The criteria are flexible and should be set to work with your classroom nutrition and physical activity focus.

Establish a time frame for how often students fill out slips and how often you total them. For example, it might be every day, alternating days, or once a week.

Each time you total students' slips, move the football cut-outs down the field to show students how far they have come in their effort to eat healthy and be active.

When the class scores a touchdown in the end zone, celebrate with a tasting party of nutritious snacks, some extra recess for physical activity, or a special activity or a story.



Do-It-Yourself Food Models

Preparation

Brainstorm with students a list of their favorite foods. Assign students to collect food labels of those foods from home and bring them to class.

Activity

Using Food Models, review how to read food labels. Have students use the food labels brought from home along with food photographs from magazines to create their own unique Food Model. Students should find a photograph of the food from a magazine, located on a food container, or hand-drawn and glued onto a piece of cardstock. After cutting out pictures, have students mount the label's nutrition facts panel to the back of the food photograph. Use these student-produced food models throughout the duration of your nutrition unit.



Moving on Down the Line

Preparation

Lay out Food Models on a long table, in a cafeteria-style arrangement. If using paper plates, cut four to five slits in each. The slits should be wide enough to hold the tabs from the Food Models.

Activity

Begin by discussing why students choose certain foods, including taste, visual appeal, and on-the-go foods that require little or no preparation. Point out the cafeteria of foods. Explain that each student will have the chance to go through the cafeteria line and select a meal they might eat. Outline any criteria you would like the students to follow when selecting meals. (For example, if calcium is the focus, students might be instructed to choose a lunch that contains foods from all five food groups and that provides at least 30% of the Daily Value for calcium.) Otherwise, this activity may be used to ensure that students are able to select foods that would be wise choices from each food group.

Give students a paper plate or tray and have them go through the cafeteria line. Have students total the quantity of the identified nutrient contained in each item selected from the line. The teacher may also act as “cashier” and check out their food selections using a calculator. Have students share their choices with the person next to them. Next, have several students share with the large group. If a student’s choices do not meet the outlined criteria, ask the group for suggestions on how the meal could be modified.



Menu Magic

Activity

Review the process of adding, subtracting, and multiplying decimals. Hand out sample restaurant menus. Ask students to choose a meal for themselves and calculate the cost, including tax and tip.

Have students create their own healthy restaurant menus with descriptions of foods and prices. Remind students to focus on healthy choices. (Consider asking students to include calories and nutrition facts on their menus, using the Food Models as a resource.) Once the menus are complete, have students exchange menus, order a balanced meal, and calculate the cost of their choices.

Objective

Students will be able to plan a meal using basic nutrition.

Materials

Food Models, paper plates or trays (one for each student), calculator

Objective

Students will create a restaurant menu using all food groups, order a meal, and calculate the cost of their choices (food prices).

Materials

Food Models, sample restaurant menus, paper, pencils



Objective

Students will analyze food ads with information located on Food Models and determine ways to be a more effective consumer.

Materials

Ads for food products from magazines, Food Models

Objective

Students will rank foods for particular nutrients.

Materials

Food Models, various food labels



Food Influencers

Preparation

Have students bring food advertisements from magazines. Spread Food Models out on a large table.

Activity

Show examples of advertisements for food products. Discuss the purpose of advertisements. Using the advertisements brought from home, ask the students to find a Food Model for the food that is advertised. Ask students to compare and contrast the type of information available about the foods in the ads with the type of information listed on the back of the Food Models. Point out that the Food Models are set up to look like nutrition labels found on food packages. All information used on nutrition labels is regulated by the Food and Drug Administration. Ask students to compare and contrast the goal of the advertisement with the goal of the Food Models and nutrition labels.



Label It Nutrition

Preparation

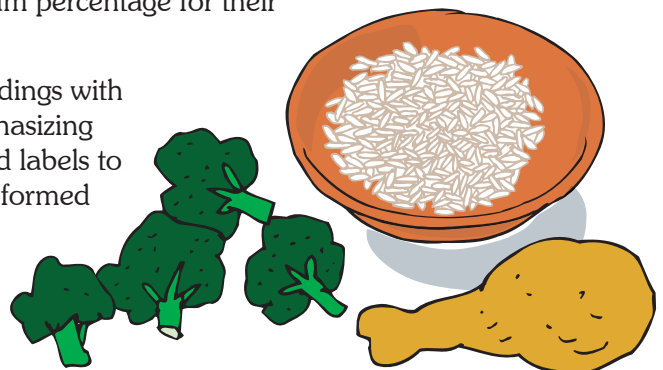
Select four to five Food Models for students to rank according to calorie content, such as frozen yogurt, chocolate candy bar, brownie, and apple pie. Select four food labels brought in by students.

Activity

Discuss the challenges associated with choosing healthy foods. Point out that a reliable, easy-to-find source of nutrition information is on food labels. Demonstrate the features of food labels, including the nutrition facts listed on the back. Display the selected Food Models. Ask a volunteer to rank the foods from highest to lowest in calories (or a particular nutrient, depending on focus of study). Get feedback from the class on the ranking. Have the volunteer read the nutrition information on the back to determine if the ranking was accurate. Have another volunteer rank the selected food labels brought in by students. Continue the activity as previously explained.

Once students understand the ranking process, divide students into small groups of two to three. Assign each group a different nutrient. Ask them to look through the Food Models and food labels and come up with a list of five foods high or low in their assigned nutrient. You may want to give the groups a specific minimum/maximum percentage for their nutrient.

Have small groups share findings with the class. Conclude by emphasizing the importance of using food labels to compare foods and make informed choices.





Let's Get Technical

Preparation

Select Food Models with these two characteristics on the reverse side: 1) nutrition information for only one food; 2) yellow highlighting. For example, choose orange juice (with one food item and two yellow bars of highlighting); avoid fruit cocktail (with two food items and no yellow highlighting).

Activity

Distribute a Food Model to each student. Ask them to review the nutrition information on the back of the Food Models. Point out that all their Food Models have yellow highlighting. Ask, "What do you think the yellow highlighting means?"

Allow students to brainstorm, providing the reasoning for their ideas. After discussion, let students know that if a food provides 10% or more of a Daily Value for a nutrient, it is considered a good source of that nutrient; if a food provides 20% or more of that Daily Value for a nutrient, it is considered an excellent source of that nutrient.

Objective

Students will explain the purpose of yellow highlighting on Food Models (10% or more of a nutrient).

Materials

Food Models



Charting a Course to Healthy Eating

Activity

Students will be using the Food Models to create data tables, charts, or graphs. Model the procedure for creating a bar graph. Select one Food Model and make a bar graph to show the Percent Daily Values of the nutrients in the food. Once students understand the procedure, have students choose a Food Model and create their own bar graph.

Additional Activities

Select five Food Models and make a bar graph to compare the Percent Daily Value of these foods for a single nutrient. Students may also create a "Personalized Table" with key nutrition information about the foods they eat most often. For example, a student might list the percent of calcium, vitamin C, and protein in his or her favorite foods.

Objective

Students will create bar graphs to show Percent Daily Values of nutrients.

Materials

Food Models, paper, colored pencils



Objective

Students will write a creative story using a chosen Food Model.

Materials

Prepared slips from Appendix A with hero, villain, and setting; three envelopes; tape or glue; Food Models; paper; pencils



160,000 Ways to Write a Story

Preparation

Make at least two copies of the hero, villain, and setting strips, located in Appendix A. Make sure there are enough strips for all students in the class. Begin by cutting out the hero heading strip. Tape or glue onto an envelope; then cut apart the hero slips and place in the envelope. Do the same with the villain and setting strips. There will now be three envelopes that are labeled and ready for use. Spread out Food Models on a table.

Activity

Discuss with students the importance of making healthy choices on a daily basis.

Explain to students that they will be writing a creative story that focuses on the importance of healthy eating. If necessary, review basic literary elements, such as characters (antagonist/protagonist), setting, and plot.

Have students begin by choosing a slip from the “hero” envelope. Ask them to write the name of their hero on a sheet of paper or index card. Collect all hero slips. Repeat with the remaining envelopes. Students will also need to choose a Food Model which should be the basis for their conflict. Encourage students to use creativity and have fun with their stories. Remind students that these stories must focus on making wholesome food choices while fighting the evils of unhealthy snacking.





The Power of Nutrition

Preparation

Select two to three Food Models from each of the five food groups. Do not use combination foods for this activity. For example, in choosing foods from the Dairy Group, use a glass of milk, yogurt, and a slice of cheese. The focus should be on the nutrients that are prevalent in each food group, such as calcium and Vitamin D in foods found in the Dairy Group.

Activity

Discuss the importance of the nutrients found in foods. Show students the Food Models that have been selected. Review the nutrients found in each group.

Place students in five small groups. Assign each group a food group to research. Each group will be responsible for creating a PowerPoint presentation summarizing their findings, which should include examples of foods, the specific nutrients and the function found within their assigned food group.

Along with the content of the project, students should incorporate text, import graphics, and use custom animation in their PowerPoints.

Objective

Students will identify and explain the function of specific nutrients within a food group.

Materials

Computers (one for each group of students), research materials (including Internet access, if available), Food Models



Discovering Serving Sizes

Preparation

Ask students to bring in a variety of foods that they like to eat.

Activity

Review with the students the proper way to measure using a balance scale along with how to read food labels. Place students in small groups. Distribute foods brought in by the students. Have the students take turns weighing and recording the weights of each food. Then have students find the appropriate Food Model that matches their actual food. Students will then use the Food Model to determine the actual serving size for each food and calculate the weight of that food. Students may use the nutrition facts included in any foods brought from home. Have students analyze their findings and compare the weight of the foods with the weight of the serving size of that food. Have a class discussion of student findings and how that information can be related to their daily food intake and choices.

Objective

Students will weigh actual foods and compare them with the weight of the standard serving size of that food.

Materials

Balance scales (one for each group of students), actual foods, Food Models



Objective

Students will use proportions to calculate what percent of a 2000-calorie diet a particular food provides.

Materials

Food Models

Objective

Students will create a mobile of healthy daily intake of foods.

Materials

Hanger (one for each student), magazines for cutting, cardstock or drawing paper, colored pencils, empty food packages, glue, yarn or string



Figuring Out Food

Preparation

Gather the following Food Models: soft drink, chocolate milk, low fat milk.

Activity

Show students the selected drink Food Models. Have students predict which drink contains the greatest number of calories. Model how to read the Food Models to determine the Percent Daily Value for calories. Then compare the Percent Daily Value for key nutrients found in the Dairy Group—calcium, riboflavin, and protein.

Hand out pairs of Food Models to students, such as a donut and a slice of whole-wheat bread, potatoes and potato chips, and an orange and orange juice. Have students use these Food Models to practice using proportions to determine what percent of a 2000-calorie diet a particular food provides. Remind the class that on the average, most 6th-graders need about 2000 calories of food each day.

Example: Tuna salad provides 192 calories per $\frac{1}{2}$ -cup serving. Using a proportion, students can calculate:

$$\frac{192 \text{ calories}}{2000 \text{ calories}} = \frac{x}{100}$$



Food Model Mobiles

Activity

Review the importance of following the guidelines associated with MyPlate to ensure a healthy diet. Have students create mobiles using pictures from magazines, empty food packages, or their original drawings of foods. Once the pictures have been chosen and prepared, string or yarn is used to attach them to a hanger. These mobiles should represent a day's food intake, keeping in mind the recommended servings from each food group.

Adaptation 1—Use the mobiles to illustrate the variety of foods within each group.

Adaptation 2—Utilize the hanger as a balance and emphasize the various food groups needed to obtain nutritional balance. Personal choices could illustrate the need to eat a balanced meal.



The Way Around Food

Activity

Review vocabulary, measuring techniques and formulas for calculating perimeter, area, and circumference, as needed. Divide Food Models among students making sure that each student (or group of students) receives a circular, quadrilateral, and triangular food. Depending on the number of Food Models and the ability of students, this activity may be done in small groups or the Food Models may be passed from student to student.

Have students estimate the circumference and area of each round Food Model, such as a tomato, orange, and English muffin; estimate the perimeter and area of each Food Model shaped as a quadrilateral, such as cheese, lasagna, and crackers; estimate the perimeter and area of triangular Food Models, such as pizza, watermelon, and quiche.

After calculating the measurements based on their estimations, have students measure the Food Models with customary rulers and recalculate. Have them compare and contrast their estimations with the actual measurements.

Additional Activity

Calculate the same measurements using a metric ruler.

Objective

Students will use Food Models to estimate and calculate perimeter, area, and circumference.

Materials

Customary and metric rulers, Food Models



Food Fact Investigation

Activity

Have students investigate and report on any of the following questions (or any question of their choosing that relates to nutrition, food safety, and/or effects of microorganisms in foods):

Why do we need to eat food from each food group?

Why is eating a variety of foods within each food group critical in order to get all the nutrients you need?

How are foods processed to retain nutrients?

What are the steps in making cheese? What are the nutrient differences among cheeses?

What are some sources of animal and plant proteins? How do they compare? Which of these sources are also good sources of iron, thiamin, and niacin?

What are the positive and negative effects of microorganisms in relation to foods and food preparation?

Provide Food Models as a resource for this assignment.

Objective

Students will complete a research project on nutrition, food safety, and/or microorganisms found in foods. Students will have the option of presenting their findings in written, oral or multimedia formats.

Materials

Food Models, research materials



Objective

Students will analyze food labels and identify those calcium-rich foods.

Materials

Food Models, variety of food labels, calculators

Objective

Students will produce a class newsletter on healthy eating.

Materials

Newspaper (to use as a model), research materials, computers (optional), paper



Got Calcium?

Preparation

Ask students to bring in food labels from home, particularly for those foods that appeal to them. Choose Food Models that vary in the amount of calcium provided.

Activity

Review how to read food labels with students. Show students the selected Food Models. Ask them to predict the rank (highest to lowest) of those foods according to calcium content. Using the nutrition information provided on the Food Models, provide students with the correct rankings.

With the food labels brought from home, have the students predict which of their foods contain the greatest amount of calcium. Students will then determine the actual percentage and decimal value of the calcium content in each food. Have students calculate the amount of that food that would contain 100% of the Daily Value for calcium.

Discuss the 3-A-Day™ of Dairy. Using the Food Models and the food labels, have students practice choosing a variety of foods containing calcium that would provide 100% of the Daily Value for calcium.



Chewsy News

Activity

Review features of a newspaper, including persuasive editorials, ads, feature articles, and cartoons. This activity may be used at the culmination of a nutrition unit. Based on previous or ongoing research, have students produce a newspaper that focuses on making healthy food choices. Allow students to make their contributions based on individual interests and learning styles.



Appendix A - Materials for 160,000 Ways to Write a Story

Hero	Villain	Setting
Walter Melon	Bubba L. Yum	A shoe factory
Ta'mater	Cara Mello	A fancy restaurant
Hot Tamale	Eden Crunch Berry	A school playground
King Vitaman	Ben N. Jerry	A TV studio
Mr. Cheesehead	Fruit Pie the Magician	An abandoned warehouse
Baron von Lemon	Dr. Kool Aid	A spaceship
Toucan Sam	Phil Barry Doughboy	A dark cave
Spice Girl	Frito Bandito	A sunken ship
Uncle Ben	Chip N. Dipp	The shopping mall
Aunt Jemima	Chester Cheetoh	An amusement park
Fruit Brute	Count Chocula	An ancient ruin
Tony le Tigre	Kandy Korn	A high mountaintop
Luna Tuna	J. Ollie Rancher	The seashore
Jolly Green Giant	Frank N. Berry	A deserted island
Callie Flower	Tater Hater	A racetrack
Brock O. Lee	Marsha Mallow	A football field
Cole Rabi	Chris P. Kreem	A baseball game
Honey Dude	Kitty Kat	A skating rink
Roe Maine	Emmy Em	A tool shed
Pete Zaa	Babs Ruth	An orchard

Appendix B - Utah Standards and Objectives Met in this Guide by Grade Level

Activity (Page #)	Grade Level	Standard/Objective/Indicator
Create a Big Breakfast Book (1)	K	Integrated Core Standard 1: Students will develop a sense of self. Objective 1—Describe and practice responsible behaviors for health and safety. b. Describe the benefits of eating a variety of nutritious foods.
	1	Integrated Core Standard 1: Students will develop a sense of self. Objective 1—Describe and practice responsible behaviors for health and safety. b. Describe the benefits of eating a variety of nutritious foods.
	2	Integrated Core Standard 1: Students will develop a sense of self. Objective 1—Describe and practice responsible behaviors for health and safety. b. Describe the benefits of eating a variety of nutritious foods.
Breakfast Helpers (1)	K	Integrated Core Standard 2: Students will develop a sense of self in relation to families and community. Objective 1—Describe behaviors that influence relationships with family and friends. b. Describe tasks at home and school.
	1	Integrated Core Standard 2: Students will develop a sense of self in relation to families and community. Objective 1—Describe behaviors that influence relationships with family and friends. b. Describe tasks at home and school.
Concentration (2)	K	Integrated Core Standard 1: Students will develop a sense of self. Objective 3—Develop and use skills to communicate ideas, information, and feelings. a. Identify and express ideas, information, and feelings in a variety of ways (e.g., draw, paint, tell stories, play, make believe, dance, sing). Math Standard 1—Students will understand simple number concepts and relationships. Objective 1—Identify and use whole numbers up to 30. c. Use one-to-one correspondence when counting a set of objects and develop a strategy for keeping track of counted and uncounted objects. Language Arts Standard 1: Oral Language - Students develop language for the purpose of effectively communicating through listening, speaking, viewing, and presenting. Objective 1 - Develop language through listening and speaking. b. Listen and demonstrate understanding by responding appropriately (e.g., follow two-step directions).
Happy Food Song (2)	K	Integrated Core Standard 1: Students will develop a sense of self. Objective 2 - Develop skills in gross and fine motor movement.; Objective 3 - Develop and use skills to communicate ideas, information, and feelings. a. Identify and express ideas, information, and feelings in a variety of ways (e.g., draw, paint, tell stories, play, make believe, dance, sing).
Out of the Frying Pan (2)	1	Integrated Core Standard 2 - Students will develop a sense of self in relation to families and community. Objective 2—Describe important aspects of the community and culture that strengthen relationships. d. Identify and use technology in your home, school, and community (e.g., computer, TV, radio).

Appendix B - Level One Utah Standards and Objectives Met in this Guide by Grade Level

Where Food Grows (3)	K	Integrated Core Standard 1: Students will develop a sense of self. Objective 1—Describe and practice responsible behaviors for health and safety. b. Describe the benefits of eating a variety of nutritious foods.
Solid or Liquid? (3)	1	Integrated Core Standard 3: Students will develop an understanding of their environment. Objective 2—Investigate water and interactions with water. a. Observe and measure characteristics of water as a solid and liquid.
Rhyming Dining (3)	1	Language Arts Standard 3: Phonological and Phonemic Awareness-Students develop phonological and phonemic awareness. Objective 5—Orally manipulate phonemes in words and syllables (manipulation). a. Substitute initial and final sound (e.g., replace first sound in mat to /s/, say sat; replace last sound in mat with /p/, say map).
Syllable Count (4)	1	Language Arts Standard 3: Phonological and Phonemic Awareness-Students develop phonological and phonemic awareness. Objective 1—Demonstrate phonological awareness. a. Count the number of syllables in words.
Food Syllables (4)	1	Language Arts Standard 3: Phonological and Phonemic Awareness-Students develop phonological and phonemic awareness. Objective 1—Demonstrate phonological awareness. a. Count the number of syllables in words.
Mystery Food (4)	K	Integrated Core Standard 1: Students will develop a sense of self. Objective 3—Develop and use skills to communicate ideas, information, and feelings. b. Recognize similar colors as being members of the family of reds, blues, and yellows and shapes as being similar to squares, circles, and triangles.
	1	Math Standard 2: Students will identify and use number patterns and properties to describe and represent mathematical relationships. Objective 1—Recognize, describe, and represent patterns with more than one attribute. a. Sort and classify objects using more than one attribute.
Pattern Makers (5)	1	Math Standard 2: Students will identify and use number patterns and properties to describe and represent mathematical relationships. Objective 1—Recognize, describe, and represent patterns with more than one attribute. c. Identify, create, and label growing patterns using objects, pictures, and symbolic notation.
Fishing for Foods Game (5)	K	Integrated Core Standard 1: Students will develop a sense of self. Objective 1—Describe and practice responsible behaviors for health and safety. b. Describe the benefits of eating a variety of nutritious foods.
	1	Integrated Core Standard 1: Students will develop a sense of self. Objective 1—Describe and practice responsible behaviors for health and safety. b. Describe the benefits of eating a variety of nutritious foods.
	2	Integrated Core Standard 1: Students will develop a sense of self. Objective 1—Describe and practice responsible behaviors for health and safety. b. Describe the benefits of eating a variety of nutritious foods.

Appendix B - Level One Utah Standards and Objectives Met in this Guide by Grade Level

Food Rainbows (6)	K	<p>Math Standard 1: Students will understand simple number concepts and relationships.</p> <p>Objective 1 Identify and use whole numbers up to 30.</p> <p>a. Represent whole numbers using concrete, pictorial, and symbolic representations.</p> <p>Math Standard 2: Students will sort and classify objects as well as recognize and create simple patterns.</p> <p>Objective 1—Identify, sort, and classify objects according to common attributes.</p> <p>a. Sort objects into groups by attribute and identify which attribute was used.</p> <p>Math Standard 3: Students will understand basic geometry and measurement concepts as well as collect and organize data.</p> <p>Objective 1—Identify and create simple geometric shapes and describe simple spatial relationships.</p> <p>a. Identify, name, describe, and draw circles, triangles, rectangles, and squares in various sizes and orientations.</p>
Food Geometry (6)	K	<p>Math Standard 3: Students will understand basic geometry and measurement concepts as well as collect and organize data.</p> <p>Objective 1—Identify and create simple geometric shapes and describe simple spatial relationships.</p> <p>a. Identify, name, describe, and draw circles, triangles, rectangles, and squares in various sizes and orientations.</p>
	1	<p>Math Standard 3: Students will understand simple geometry and measurement concepts as well as collect, represent, and draw conclusions from data.</p> <p>Objective 1—Identify, describe, and create simple geometric figures.</p> <p>a. Name, create, and sort geometric plane figures (i.e., circle, triangle, rectangle, square, trapezoid, rhombus, parallelogram, hexagon).</p>
Food Group Quilt (7)	1	<p>Integrated Core Standard 1: Students will develop a sense of self.</p> <p>Objective 1—Describe and practice responsible behaviors for health and safety.</p> <p>b. Describe the benefits of eating a variety of nutritious foods.</p>
	2	<p>Integrated Core Standard 1: Students will develop a sense of self.</p> <p>Objective 1—Describe and practice responsible behaviors for health and safety.</p> <p>b. Describe the benefits of eating a variety of nutritious foods.</p>
From Moo to You (7)	K	<p>Integrated Core Standard 1: Students will develop a sense of self.</p> <p>Objective 1—Describe and practice responsible behaviors for health and safety.</p> <p>b. Describe the benefits of eating a variety of nutritious foods.</p> <p>Objective 3—Develop and use skills to communicate ideas, information, and feelings.</p> <p>a. Identify and express ideas, information, and feelings in a variety of ways (e.g., draw, paint, tell stories, play, make believe, dance, sing).</p> <p>Language Arts Standard 1: Oral Language - Students develop language for the purpose of effectively communicating through listening, speaking, viewing, and presenting.</p> <p>Objective 1—Develop language through listening and speaking.</p> <p>b. Listen and demonstrate understanding by responding appropriately (e.g., follow two-step directions).</p>

Appendix B - Level One Utah Standards and Objectives Met in this Guide by Grade Level

Get a Feel For Food (8)	K	<p>Integrated Core Standard 1: Students will develop a sense of self.</p> <p>Objective 3—Develop and use skills to communicate ideas, information, and feelings.</p> <p>a. Identify and express ideas, information, and feelings in a variety of ways (e.g., draw, paint, tell stories, play, make believe, dance, sing).</p> <p>Language Arts Standard 1: Oral Language - Students develop language for the purpose of effectively communicating through listening, speaking, viewing, and presenting.</p> <p>Objective 1—Develop language through listening and speaking.</p> <p>b. Listen and demonstrate understanding by responding appropriately (e.g., follow two-step directions).</p> <p>Math Standard 2: Students will sort and classify objects as well as recognize and create simple patterns.</p> <p>Objective 1—Identify, sort, and classify objects according to common attributes.</p> <p>a. Sort objects into groups by attribute and identify which attribute was used.</p>
What Shape Are You In? (8)	2	<p>Math Standard 3: Students will understand simple geometry and measurement concepts as well as collect, represent, and draw conclusions from data.</p> <p>Objective 1—Describe, classify, and create geometric figures.</p> <p>a. Describe and classify plane and solid geometric figures (i.e., circle, triangle, rectangle, square, trapezoid, rhombus, parallelogram, pentagon, hexagon, cube, sphere, cone) according to the number of sides and angles or faces, edges, and vertices.</p>
Food Group Relay (9)	1	<p>Integrated Core Standard 1: Students will develop a sense of self.</p> <p>Objective 1 Describe and practice responsible behaviors for health and safety.</p> <p>b. Describe the benefits of eating a variety of nutritious foods.</p>
	2	<p>Integrated Core Standard 1: Students will develop a sense of self.</p> <p>Objective 1 Describe and practice responsible behaviors for health and safety.</p> <p>b. Describe the benefits of eating a variety of nutritious foods.</p>
Food Fractions (9)	2	<p>Math Standard 1: Students will acquire number sense with whole numbers and fractions and perform operations with whole numbers.</p> <p>Objective 2—Use unit fractions to identify parts of the whole and parts of a set.</p>
Five Food Group Sort (10)	1	<p>Integrated Core Standard 1: Students will develop a sense of self.</p> <p>Objective 1—Describe and practice responsible behaviors for health and safety.</p> <p>b. Describe the benefits of eating a variety of nutritious foods.</p>
Food Favorites (11)	1	<p>Math Standard 3: Students will understand simple geometry and measurement concepts as well as collect, represent, and draw conclusions from data.</p> <p>Objective 3—Collect, organize, and represent simple data.</p> <p>a. Collect and represent data using tables, tally marks, pictographs, and bar graphs.</p> <p>b. Describe and interpret data.</p>

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Guess a Food (11)	1	Integrated Core Standard 1: Students will develop a sense of self. Objective 1—Describe and practice responsible behaviors for health and safety. b. Describe the benefits of eating a variety of nutritious foods. Language Arts Standard 1: Oral Language-Students develop language for the purpose of effectively communicating through listening, speaking, viewing, and presenting. Objective 1—Develop language through listening and speaking. b. Listen and demonstrate understanding by responding appropriately (e.g., follow multiple-step directions, restate, clarify, question).
	2	Integrated Core Standard 1: Students will develop a sense of self. Objective 1 Describe and practice responsible behaviors for health and safety. b. Describe the benefits of eating a variety of nutritious foods. Language Arts Standard 1: Oral Language-Students develop language for the purpose of effectively communicating through listening, speaking, viewing, and presenting. Objective 1 Develop language through listening and speaking. b. Listen and demonstrate understanding by responding appropriately (e.g., follow multiple-step directions, restate, clarify, question, summarize).
Fish Sticks by the Inch (12)	1	Math Standard 3: Students will understand simple geometry and measurement concepts as well as collect, represent, and draw conclusions from data. Objective 2—Identify measurable attributes of objects and units of measurement, and use appropriate techniques and tools to determine measurements. b. Measure the length of an object using nonstandard units and count the units using groups of tens and ones.
	2	Math Standard 3: Students will understand simple geometry and measurement concepts as well as collect, represent, and draw conclusions from data. Objective 2—Identify and use units of measure, iterate (repeat) that unit, and compare the number of iterations to the item being measured. a. Identify and use measurement units to measure, to the nearest unit, length (i.e., inch, centimeter), weight in pounds, and capacity in cups.
Let's Write a Story (12)	K	Language Arts Standard 8: Writing - Students write daily to communicate effectively for a variety of purposes and audiences. Objective 2—Compose a written draft. a. Draft ideas on paper, utilizing pictures with labels/words. b. Select appropriate words to convey meaning.
	1	Language Arts Standard 8: Writing-Students write daily to communicate effectively for a variety of purposes and audiences. Objective 2—Compose a written draft. a. Draft ideas on paper in an organized manner (e.g., beginning, middle, end) utilizing words and sentences. b. Select appropriate words to convey meaning.

Appendix B - Level One Utah Standards and Objectives Met in this Guide by Grade Level

Let's Write a Story (12)	2	<p>Language Arts Standard 8: Writing—Students write daily to communicate effectively for a variety of purposes and audiences.</p> <p>Objective 1—Prepare to write by gathering and organizing information and ideas (pre-writing).</p> <p>a. Generate ideas for writing by listening, talking, drawing, looking at literature and informational text, being read to, and reflecting on personal experiences.</p> <p>Objective 2 - Compose a written draft.</p> <p>a. Draft ideas on paper in an organized manner (e.g., beginning, middle, end) utilizing words and sentences.</p> <p>b. Select appropriate words to convey meaning.</p>
Cultural Foods (13)	2	<p>Integrated Core Standard 2: Students will develop a sense of self in relation to families and community.</p> <p>Objective 2—Examine important aspects of the community and culture that strengthen relationships.</p> <p>d. Participate in activities that promote public good (e.g., respect cultural and ethnic differences, identify community needs) and recite the Pledge of Allegiance.</p>
Food Model Go Fish (13)	2	<p>Integrated Core Standard 1: Students will develop a sense of self.</p> <p>Objective 1—Describe and practice responsible behaviors for health and safety.</p> <p>b. Describe the benefits of eating a variety of nutritious foods.</p>
High Five for Food (14)	2	<p>Integrated Core Standard 1: Students will develop a sense of self.</p> <p>Objective 1—Describe and practice responsible behaviors for health and safety.</p> <p>b. Describe the benefits of eating a variety of nutritious foods.</p>
Who Likes that Food? (15)	2	<p>Math Standard 3: Students will understand simple geometry and measurement concepts as well as collect, represent, and draw conclusions from data.</p> <p>Objective 3—Collect, record, organize, display, and interpret numerical data.</p> <p>c. Organize, display, and label information, including keys, using pictographs, tallies, bar graphs, and organized tables.</p>

Appendix C - Level Two Utah Standards and Objectives Met in this Guide by Grade Level

Activity	Grade Level	Standard/Objective/Indicator
Food Model Plate (16)	3	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Compare personal eating habits with a balanced diet. Indicator—Determine a balanced diet based on the USDA Dietary Guidelines for Americans.
Five Food Group Bingo (17)	3	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Compare personal eating habits with a balanced diet. Indicator—Determine a balanced diet based on the USDA Dietary Guidelines for Americans.
	4	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Specify key vitamins and minerals and their functions. Indicator—Name foods rich in key vitamins and minerals.
Food Group Concentration (17)	3	Health Standard: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Compare personal eating habits with a balanced diet. Indicator—Determine a balanced diet based on the USDA Dietary Guidelines for Americans.
	4	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Specify key vitamins and minerals and their functions. Indicator—Name foods rich in key vitamins and minerals.
Fishing for Foods Game (18)	3	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Compare personal eating habits with a balanced diet. Indicator—Determine a balanced diet based on the USDA Dietary Guidelines for Americans.
Food Model Go Fish (18)	3	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Compare personal eating habits with a balanced diet. Indicator—Determine a balanced diet based on the USDA Dietary Guidelines for Americans.
Becoming Label Literate (19)	3	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 2—Identify nutrient groups and the key functions of each. Indicator—Name foods rich in key nutrients. Language Arts Standard 7: Objective 3 (informational text)
Cooking Up an Essay (19)	3	Language Arts Standard 8: Writing—Students write daily to communicate effectively for a variety of purposes and audiences. Objective 1—Prepare to write by gathering and organizing information and ideas (pre-writing). b. Select and narrow a topic from generated ideas. Objective 2—Compose a written draft. a. Draft ideas on paper in an organized manner utilizing words and sentences (e.g., beginning, middle, end; main idea; details; characterization; setting; plot).

Appendix C - Level Two Utah Standards and Objectives Met in this Guide by Grade Level

Cooking Up an Essay (19)	4	Language Arts Standard 8: Writing—Students write daily to communicate effectively for a variety of purposes and audiences. Objective 1—Prepare to write by gathering and organizing information and ideas (pre-writing). b. Select and narrow a topic from generated ideas. Objective 2—Compose a written draft. a. Draft ideas on paper in an organized manner utilizing words, sentences, and multiple paragraphs (e.g., beginning, middle, end; main idea; details; characterization; setting; plot).
Food Fractions and Candy Bar Math (20)	3	Math Standard 1: Students will understand the base-ten numeration system, place value concepts, simple fractions and perform operations with whole numbers. Objective 2—Use fractions to communicate and compare parts of the whole. a. Identify the denominator of a fraction as the number of equal parts of the unit whole and the numerator of a fraction as the number of equal parts being considered. c. Name and write a fraction to represent a portion of a unit whole for halves, thirds, fourths, sixths, and eighths.
Food Comes in All Shapes (21)	3	Math Standard 4—Students will select and use appropriate units and measurement tools to solve problems. Objective 1—Select and use appropriate tools and units to estimate and measure length, weight, capacity, time, and perimeter of two-dimensional figures. e. Describe perimeter as a measurable attribute of two-dimensional figures, and estimate and measure perimeter with metric and customary units.
Sizing Up Food (22)	3	Math Standard 4: Students will select and use appropriate units and measurement tools to solve problems. Objective 1—Select and use appropriate tools and units to estimate and measure length, weight, capacity, time, and perimeter of two-dimensional figures. b. Measure the length of objects to the nearest centimeter, meter, half- and quarter-inch, foot, and yard.
Congruent Comrades (22)	3	Math Standard 3: Students will describe and analyze attributes of two-dimensional shapes. Objective 2—Demonstrate the meaning of congruence through applying transformations. b. Determine whether two polygons are congruent by reflecting, translating, or rotating one polygon to physically fit on top of the other.
	4	Math Standard 3: Students will understand attributes and properties of plane geometric objects and spatial relationships. Objective 1—Identify and describe attributes of two-dimensional geometric shapes.
Symmetry, Anyone? (23)	3	Math Standard 3: Students will describe and analyze attributes of two-dimensional shapes. Objective 1—Describe and compare attributes of two-dimensional shapes. Exploratory Concepts and Skills—Explore line symmetry and rotational symmetry.
Food Model Survey (23)	3	Math Standard 5: Students will collect and organize data to make predictions and identify basic concepts of probability. Objective 1—Collect, organize, and display data to make predictions. a. Collect, read, represent, and interpret data using tables, graphs, and charts, including keys (e.g., pictographs, bar graphs, frequency tables, line plots).

Appendix C - Level Two Utah Standards and Objectives Met in Guide by Grade Level

Can You Find the Pattern? (24)	3	Math Standard 2: Students will use patterns, symbols, operations, and properties of addition and multiplication to represent and describe simple number relationships. Objective 1—Create, represent, and analyze growing patterns. a. Create and extend growing patterns using objects, numbers, and tables.
	4	Math Standard 2: Students will use patterns and relations to represent mathematical problems and number relationships. Objective 1—Identify, analyze, and determine rules for describing numerical patterns involving operations and non-numerical growing patterns. a. Analyze growing patterns using objects, pictures, numbers, and tables to determine a rule for the pattern. b. Recognize, represent, and extend simple patterns involving multiples and other number patterns (e.g., square numbers) using objects, pictures, numbers, and tables.
Food Model Mobiles (24)	3	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Compare personal eating habits with a balanced diet. Indicator—Determine a balanced diet based on the USDA Dietary Guidelines for Americans. Objective 2—Identify nutrient groups and the key functions of each. Indicator—Name foods rich in key nutrients.
Twenty Questions (25)	3	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Compare personal eating habits with a balanced diet. Indicator—Determine a balanced diet based on the USDA Dietary Guidelines for Americans. Objective 2—Identify nutrient groups and the key functions of each. Indicator—Name foods rich in key nutrients.
Cultural Foods (25)	3	Social Studies Standard 2: Students will understand cultural factors that shape a community. Objective 1—Evaluate key factors that determine how a community develops. a. Identify the elements of culture (e.g. language, religion, customs, artistic expression, systems of exchange).
	4	Social Studies Standard 2: Students will understand how Utah's history has been shaped by many diverse people, events, and ideas. Objective 1—Describe the historical and current impact of various cultural groups on Utah. c. Explore cultural influences from various groups found in Utah today (e.g. food, music, religion, dress, festivals).
Name the Food Group Sandwich (26)	4	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Specify key vitamins and minerals and their functions. Indicator—Name foods rich in key vitamins and minerals. Language Arts Standard 8: Writing—Students write daily to communicate effectively for a variety of purposes and audiences. Objective 6—Write in different forms and genres. b. Produce traditional and imaginative stories, narrative and formula poetry.
TV No-trition (26)	4	Health Standard 7: The students will understand the value of service and effective consumer practices. Objective 2—Analyze how media strategies and techniques affect consumer practices. Indicator—Identify the strategies and techniques used in a variety of media.

Appendix C - Level Two Utah Standards and Objectives Met in this Guide by Grade Level

Putting Food in Its Place (27)	4	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Specify key vitamins and minerals and their functions. Indicator—Name foods rich in key vitamins and minerals.
Make the Fraction Whole (27)	4	Math Standard 1: Students will acquire number sense and perform operations with whole numbers, simple fractions, and decimals. Objective 2—Analyze relationships among whole numbers, commonly used fractions, and decimals to hundredths. b. Order whole numbers up to six digits, simple fractions, and decimals using a variety of methods (e.g., number line, fraction pieces) and the symbols <, >, and = to record the relationships.
Food Gives Me Energy (28)	4	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 2—Determine the relation between food intake and activity. Indicator—Estimate the number of calories needed for growth and body function.
MyPlate Portions (28)	4	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Compare personal eating habits with a balanced diet. Indicator—Determine a balanced diet based on the USDA Dietary Guidelines for Americans.
Graphing Favorite Dairy Foods (29)	4	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Specify key vitamins and minerals and their functions. Indicator—Determine the functions of key vitamins and minerals. Math Standard 5: Students will interpret and organize collected data to make predictions, answer questions, and describe basic concepts of probability. Objective 1—Collect, organize, and display data to answer questions. c. Represent data using frequency tables, bar graphs, line plots, and stem and leaf plots.
What's a Gram? (29)	4	Math Standard 4: Students will describe relationships among units of measure, use appropriate measurement tools, and use formulas to find area measurements. Objective 1—Describe relationships among units of measure for length, capacity, and weight, and determine measurements of angles using appropriate tools. a. Describe the relative size among metric units of length (i.e., millimeter, centimeter, meter), between metric units of capacity (i.e., milliliter, liter), and between metric units of weight (i.e., gram, kilogram). b. Describe the relative size among customary units of capacity (i.e., cup, pint, quart, gallon).
160,000 Ways to Write a Story (30)	4	Language Arts Standard 8: Writing—Students write daily to communicate effectively for a variety of purposes and audiences. Objective 1—Prepare to write by gathering and organizing information and ideas (pre-writing). a. Generate ideas for writing by reading, discussing, researching, and reflecting on personal experiences. Objective 2—Compose a written draft. a. Draft ideas on paper in an organized manner utilizing words, sentences, and multiple paragraphs (e.g., beginning, middle, end; main idea; details; characterization; setting; plot).

Appendix D - Level Three Utah Standards and Objectives Met in this Guide by Grade Level

Activity (Page #)	Grade Level	Standard/Objective/Indicator
Brown Bagging It (31)	5	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 2—Evaluate personal activity level and food intake with the Dietary Guidelines and plan ways to improve health. Indicator—Determine how changes in personal activity level and/or food intake may benefit personal health.
	6	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Evaluate food intake and levels of activity. a. Analyze food intake and compare to Dietary Guidelines. Objective 3—Explain nutritional labeling and identify nutritional content. a. Recognize serving size information.
Spotting Food Patterns (31)	5	Math Standard 2: Students will use patterns and relations to represent and analyze mathematical problems and number relationships using algebraic symbols. Objective 1—Identify, analyze and determine a rule for predicting and extending numerical patterns involving operations whole numbers, decimals, and fractions. b. Determine a rule for the pattern using organized lists, tables, objects, and variables.
Food Comes in All Shapes (32)	5	Math Standard 4: Students will determine area of polygons and surface area and volume of three-dimensional shapes. Objective 1—Determine the area of polygons and apply to real-world problems. b. Determine the area of irregular and regular polygons by the composition and decomposition of rectangles, triangles, and parallelograms.
Five Food Group Bingo (32)	5	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 2—Predict the impact of the Dietary Guidelines on health. Indicator—Know the Dietary Guidelines.
Get Into the Game (33)	5	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 2—Evaluate personal activity level and food intake with the Dietary Guidelines and plan ways to improve health. Indicator—Determine how changes in personal activity level and/or food intake may benefit personal health.
	6	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Evaluate food intake and levels of activity. a. Analyze food intake and compare to Dietary Guidelines. b. Modify personal eating and activity plans to promote health and well-being.
Do-It-Yourself Food Models (33)	5	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 2—Evaluate personal activity level and food intake with the Dietary Guidelines and plan ways to improve health. Indicator—Compare daily food intake and caloric output with Dietary Guidelines.

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Do-It-Yourself Food Models (33)	6	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 3—Explain nutritional labeling and identify nutritional content. a. Recognize serving size information.
Moving On Down the Line (34)	5	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 2—Evaluate personal activity level and food intake with the Dietary Guidelines and plan ways to improve health. Indicator—Compare daily food intake and caloric output with Dietary Guidelines.
	6	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 2—Compare a variety of food preparation techniques. c. Prepare a nutritionally sound snack. Objective 3—Explain nutritional labeling and identify nutritional content. a. Recognize serving size information. Math Standard 1: Students will expand number sense to include operations with rational numbers. Objective 6—Demonstrate proficiency with the four operations, with positive rational numbers, and with addition and subtraction of integers. Multiply and divide a multi-digit number by a two-digit number, including decimals.
Menu Magic (34)	5	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 2—Evaluate personal activity level and food intake with the Dietary Guidelines and plan ways to improve health. Indicator—Compare daily food intake and caloric output with Dietary Guidelines. Math Standard 1: Students will expand number sense to include integers and perform operations with whole numbers, simple fractions, and decimals. Objective 5—Solve problems involving one or two operations. c. Write number sentences that can be used to solve a two-step problem.
	6	Math Standard 1: Students will expand number sense to include operations with rational numbers. Objective 6—Demonstrate proficiency with the four operations, with positive rational numbers, and with addition and subtraction of integers. a. Multiply and divide a multi-digit number by a two-digit number, including decimals.
Food Influencers (35)	5	Health Standard 7: The students will understand the value of service and effective consumer practices. Objective 2—Determine the influence of media on individual purchasing. a. Analyze the influence of media on needs and wants. b. Describe how media strategies may contribute to impulsive buying.
	6	Health Standard 7: The students will understand the value of service and effective consumer practices. Objective 3—Determine ways to be a more effective health consumer. a. Recognize media influences on making healthy choices.

Appendix D - Level Three Utah Standards and Objectives Met in this Guide by Grade Level

Label it Nutrition (35)	5	Math Standard 5: Students will construct, analyze, and construct reasonable conclusions from data and apply basic concepts of probability. Objective 1—Formulate and answer questions using statistical methods to compare data, and propose and justify inferences based on data. a. Construct, analyze, and display data using an appropriate format (e.g., line plots, bar graphs, line graphs).
	6	Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 3—Explain nutritional labeling and identify nutritional content. b. Compare similar products and determine nutritional values of each.
Let's Get Technical (36)	5	Language Arts Standard 7: Comprehension—Students understand, interpret, and analyze narrative and informational grade level text. Objective 3—Recognize and use features of narrative and informational text. e. Locate information from a variety of informational text (e.g., newspapers, magazines, textbooks, biographies, Internet, other resources).
Charting a Course to Healthy Eating (36)	5	Math Standard 5: Students will construct, analyze, and construct reasonable conclusions from data and apply basic concepts of probability. Objective 1—Formulate and answer questions using statistical methods to compare data, and propose and justify inferences based on data. a. Construct, analyze, and display data using an appropriate format (e.g., line plots, bar graphs, line graphs).
160,000 Ways to Write a Story (37)	5	Language Arts Standard 8: Writing—Students write daily to communicate effectively for a variety of purposes and audiences. Objective 1—Prepare to write by gathering and organizing information and ideas. b. Select and narrow a topic from generated ideas. Objective 2—Compose a written draft. a. Draft ideas on paper in an organized manner utilizing words, sentences, and multiple paragraphs (e.g., beginning, middle, end; main idea; details; characterization; setting; plot).
	6	Language Arts Standard 8—Writing—Students write daily to communicate effectively for a variety of purposes and audiences. Objective 1—Prepare to write by gathering and organizing information and ideas. b. Select and narrow a topic from generated ideas. Objective 2—Compose a written draft. a. Draft ideas on paper in an organized manner utilizing words, sentences, and multiple paragraphs (e.g., beginning, middle, end; main idea; details; characterization; setting; plot).
The Power of Nutrition (38)	6	Ed Tech Standard 5: Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum. Health Standard 7: The students will understand the value of service and effective consumer practices. Objective 2—Research and summarize the reliability of health resources and information. a. Identify the various types of health resources and information; e.g., pamphlets, journals, Internet, folklore, peers, fact lines, quackery, health care professionals, media. Language Arts Standard 8—Writing—Students write daily to communicate effectively for a variety of purposes and audiences. Objective 6—Write in different forms and genres. e. Produce functional texts (e.g., newspaper and newsletters articles, e-mails, simple PowerPoint presentations, memos, agendas, bulletins, web pages).

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Discovering Serving Sizes (38)	6	<p>Health Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness.</p> <p>Objective 3—Explain nutritional labeling and identify nutritional content.</p> <p>a. Recognize serving size information.</p> <p>Math Standard 4: Students will understand and apply measurement tools and techniques and find the circumference and area of a circle.</p> <p>Objective 2—Identify and describe measurable attributes of objects and units of measurement, and solve problems involving measurement.</p> <p>b. Convert units of measurement within the metric system and convert units of measurement within the customary system.</p>
Figuring Out Food (39)	6	<p>Math Standard 1: Students will expand number sense to include operations with rational numbers.</p> <p>Objective 2—Explain relationships and equivalencies among rational numbers.</p> <p>d. Relate percents less than 1% or greater than 100% to equivalent fractions, decimals, whole numbers, and mixed numbers.</p> <p>Objective 5—Solve problems involving multiple steps.</p> <p>d. Solve problems involving ratios and proportions.</p>
Food Model Mobiles (39)	6	<p>Art Standard 2: The student will analyze, reflect on, and apply the structures of art.</p> <p>Objective 2—Create works of art using the elements and principles.</p> <p>a. Modify the value of colors in artwork to create intentional effects.</p>
The Way Around Food (40)	6	<p>Math Standard 4: Students will understand and apply measurement tools and techniques and find the circumference and area of a circle.</p> <p>Objective 1—Describe and find the circumference and area of a circle.</p> <p>b. Find the circumference of a circle using a formula.</p> <p>Objective 2—Identify and describe measurable attributes of objects and units of measurement, and solve problems involving measurement</p> <p>d. Determine when it is appropriate to estimate or use precise measurement when solving problems.</p>
Food Fact Investigation (40)	6	<p>Language Arts Standard 8: Writing—Students write daily to communicate effectively for a variety of purposes and audiences.</p> <p>Objective 6—Write in different forms and genres.</p> <p>c. Produce informational text (e.g., book reports, cause/effect reports, compare/contrast essays, observational/research reports, content area reports, biographies, historical fiction, summaries).</p> <p>Science Standard 5: Students will understand that microorganisms range from simple to complex, are found almost everywhere, and are both helpful and harmful.</p> <p>Objective 3—Identify positive and negative effects of microorganisms and how science has developed positive uses for some microorganisms and overcome the negative effects of others.</p> <p>b. Identify how microorganisms are used as food or in the production of food (e.g., yeast helps bread rise, fungi flavor cheese, algae are used in ice cream, bacteria are used to make cheese and yogurt).</p> <p>e. Observe and report on microorganisms' harmful effects on food (e.g., causes fruits and vegetables to rot, destroys food-bearing plants, makes milk sour).</p>

Appendix D - Level Three Utah Standards and Objectives Met in this Guide by Grade Level

Got Calcium? (41)	6	Math Standard 1: Students will expand number sense to include operations with rational numbers. Objective 6—Demonstrate proficiency with the four operations, with positive rational numbers, and with addition and subtraction of integers. Multiply and divide a multi-digit number by a two-digit number, including decimals.
Chewsy News (41)	6	Language Arts Standard 8: Writing—Students write daily to communicate effectively for a variety of purposes and audiences. Objective 6—Write in different forms and genres. e. Produce functional texts (e.g., newspaper and newsletters articles, e-mails, simple PowerPoint presentations, memos, agendas, bulletins, web pages). Health Standard 6—The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness. Objective 1—Evaluate food intake and levels of activity. a. Analyze food intake and compare to Dietary Guidelines.

Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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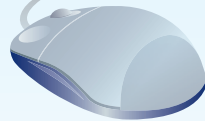
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