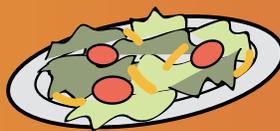




SNACK SLEUTHS

**Personal Explorations Into
Nutritious Snacking**

**Educators' Guide
Grades 3-5**



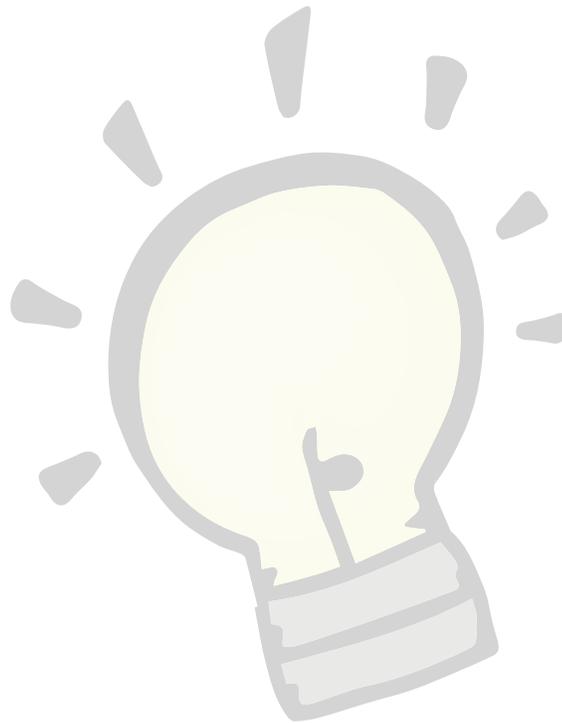


Credits

Snack Sleuths was updated, modified, and revised by Chris Flood, M.S., Nutrition Consultant, for the United Dairy Industry of Michigan; from the original National Dairy Council 1993 publication.

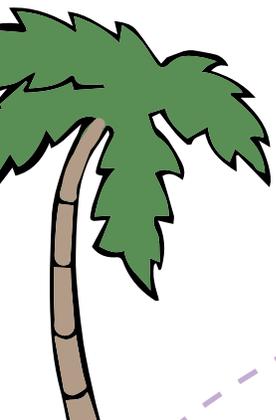
The United Dairy Industry of Michigan would like to thank the following classroom teachers for their contributions and expert review:

- *Heather Chalupa, Kindergarten*
- *Alison Dubbink, First Grade*
- *Linda Brezezinki, 2nd and 3rd grade*
- *Jenny Puvogel, 4th grade*
- *Nicole Stenman, 5th grade*



More United Industry of Michigan Materials

The United Dairy Industry of Michigan has other free and low-cost materials for schools. To find out more visit their web site at www.MilkMeansMore.org.

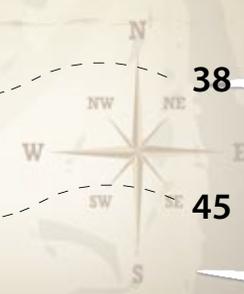


SNACK SLEUTHS



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For Educators

Get ready to introduce your students to the exciting world of healthy snacking from the five food groups! This program contains six Discoveries and is designed to teach students in grades 3-5, through investigative and experiential learning:

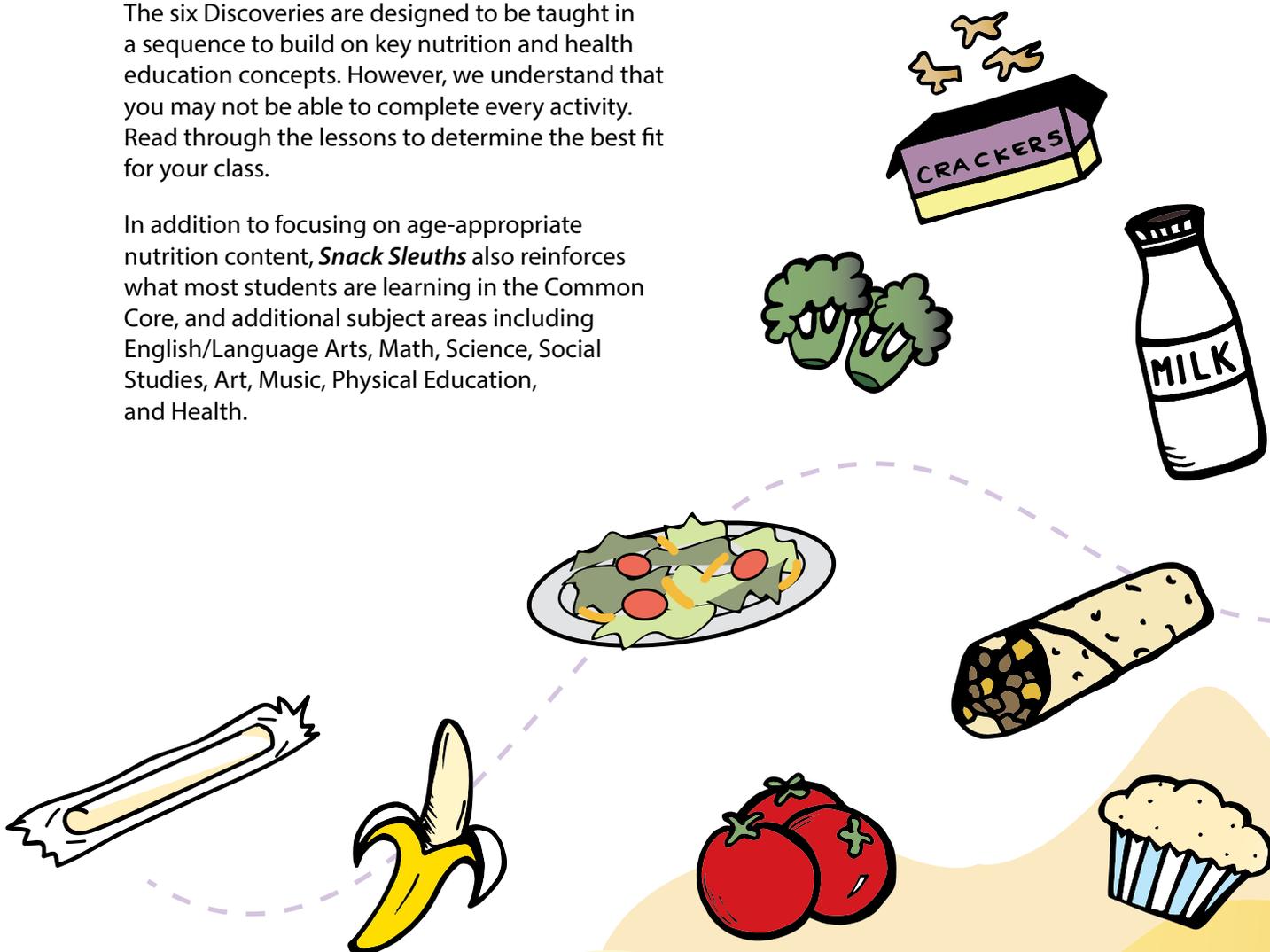
- Why snacks are important;
- What a healthy snack is;
- New ideas for healthy snacking;
- How to accept responsibility for their own snack choices.

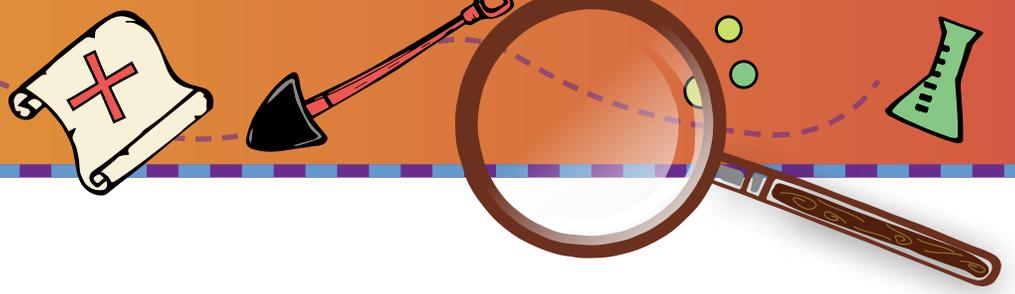
The six Discoveries are designed to be taught in a sequence to build on key nutrition and health education concepts. However, we understand that you may not be able to complete every activity. Read through the lessons to determine the best fit for your class.

In addition to focusing on age-appropriate nutrition content, *Snack Sleuths* also reinforces what most students are learning in the Common Core, and additional subject areas including English/Language Arts, Math, Science, Social Studies, Art, Music, Physical Education, and Health.

THE DISCOVERIES

1. Snack Artifacts
2. Investigating our Snack Habits
3. Snack Quacks
4. Snacks Decoders
5. Healthy or Not? It All "Ads" Up
6. Personal Snack Explorations



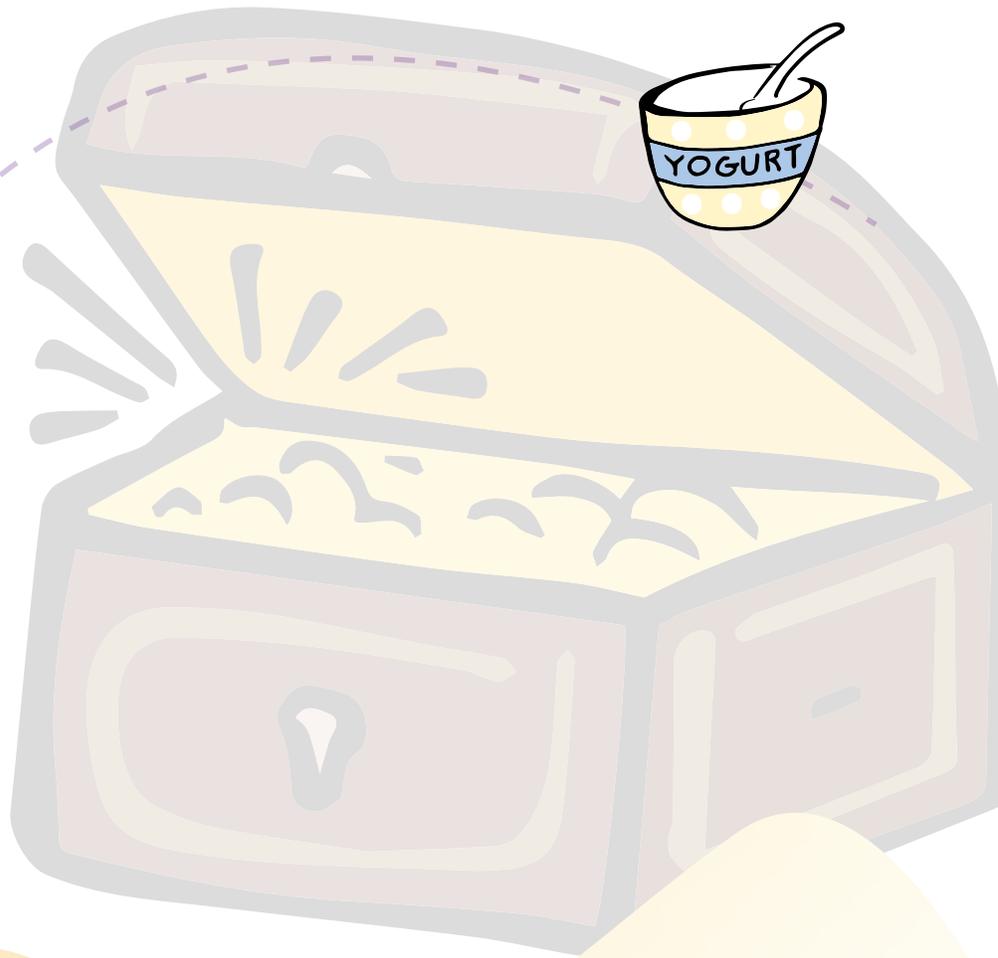
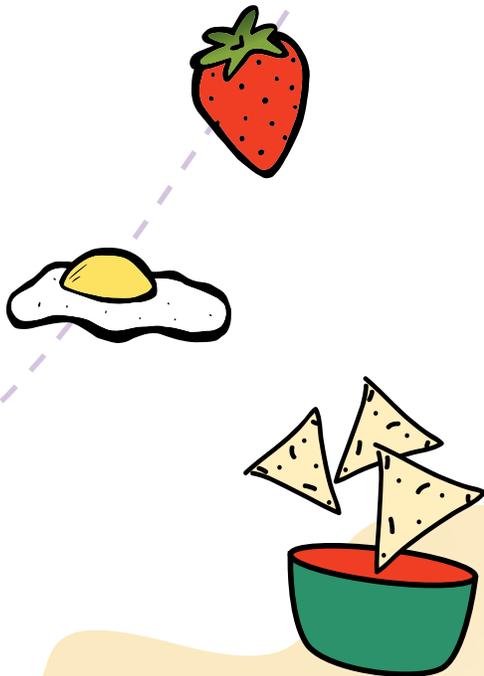


Each Discovery contains the sub-sections below to help guide you. Feel free to be creative and adapt the activities to best fit your time, resources, and your students' learning ability.

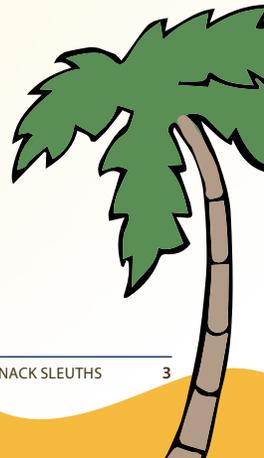
Thank you for your commitment and for your help in guiding students to become *Super Snack Explorers*.

Sub-sections

- Time
- Overview
- Objective
- Materials
- Get Ready
- Intro
- The Lesson
- Super Snack
- Wrap Up
- Bonus Ideas



Get ready to begin your exploration!





SNACK SLEUTHS



Personal Explorations Into Nutritious Snacking

Interdisciplinary Outcomes

Whether you are a classroom teacher or any other type of educator, it's nearly impossible to teach nutrition, healthy eating, or physical activity concepts without teaching something else at the same time. We know that teaching time is limited and that classroom teachers are required to teach to the Common Core for English Language Arts and Math and to teach to other state-specific standards for science, social studies, art, music, physical education, and health.

On pages 49 -55, at the back of this booklet, you will find charts for each grade level: third grade, fourth grade, and fifth grade. The charts show you how each of the Discoveries in Snack Sleuths, matches up with the Common Core.

For a few of the Discoveries, you will also find connections to Michigan-specific, social studies and science standards. Those are noted with an *.

Health Education

All of the Discoveries in the Snack Sleuths program focus on teaching to one or more of the eight National Health Education Standards (NHES). The NHES are written expectations for what students should know and be able to do by grades 2, 5, 8, and 12 to promote personal, family, and community health.

Within each standard there are performance indicators that articulate specifically what students should know or be able to do by the conclusion of each of the following grade spans: Pre-K–Grade 2, Grade 3–Grade 5, Grade 6–Grade 8, and Grade 9–Grade 12.

For more information, or to view the specific grade-span performance indicators, go to www.cdc.gov and search for National Health Education Standards.

The National Health Education Standards

Standard 1	Students will comprehend concepts related to health promotion and disease prevention to enhance health.
Standard 2	Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
Standard 3	Students will demonstrate the ability to access valid information, products, and services to enhance health.
Standard 4	Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
Standard 5	Students will demonstrate the ability to use decision-making skills to enhance health.
Standard 6	Students will demonstrate the ability to use goal-setting skills to enhance health.
Standard 7	Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
Standard 8	Students will demonstrate the ability to advocate for personal, family, and community health.

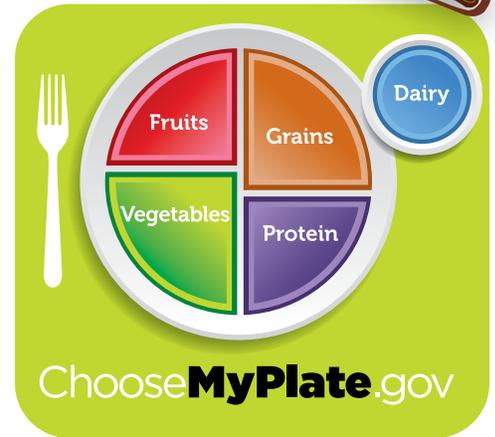


For Educators

About MyPlate

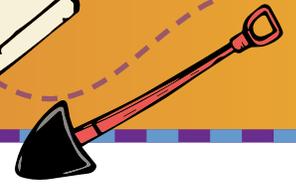
Our current food guidance model is called MyPlate. MyPlate uses five food groups to teach people how to eat healthier. The five food groups are fruits, vegetables, grains, protein, and dairy.

You can learn more about MyPlate and the food groups at:
www.choosemyplate.gov.



Food Group	Role in the Body	What is the minimum amount children ages 9-12 need per day?	Examples
Fruits	Provide vitamin C for healthy skin and wound healing; provide fiber for digestion	1 ½ cups fresh, frozen, canned, dried or 100% fruit juice	apples, bananas, cherries, oranges, raisins, 100% fruit juice
Vegetables	Provide Vitamins A for healthy eyesight; provides fiber for digestion	2 cups fresh, frozen, canned or 100% vegetable juice	broccoli, lettuce, carrots, cauliflower, beans, potatoes, onions, spinach, peppers, corn
Grains	Provide energy to learn and play	5 oz. equivalents. An oz. equivalent equals 1 slice of bread, ½ cup cooked pasta, rice or cereal, 1 cup cold cereal	bread, cereal, rice, pasta, oatmeal, tortillas, cold cereal
Protein	Provides protein for strong muscles and proper growth	5 oz. An ounce equals, 1 egg, 1 oz. of meat, 1 tablespoon, peanut butter, ¼ cup beans, ½ oz. nuts and seeds	meat, fish, poultry, eggs, tofu and other soy products, peanut butter, black beans, or hummus
Dairy	Provides protein, calcium, and vitamin D for strong bodies, bones and teeth	3 cups. 1 cup equals 1 cup of plain or flavored milk, 1 cup yogurt, 1 ½ oz. hard cheese, 1 cup pudding	milk, chocolate milk, cheese, yogurt, ice cream, cottage cheese, pudding





Ten Things Educators Should Know About Nutrition

1 Children's weight is an issue.

One out of three children living in the U.S. are overweight or obese. That means kids, like adults, are consuming more calories than they can use up or burn off. Children who are overweight are more likely than non-overweight children to become overweight adults. Teaching students to choose nutritious, lower-calorie snack foods can contribute to achieving and maintaining a healthy weight.

2 Snacks are important.

Snacks (if chosen wisely) can help provide children with the calories and nutrients they need for proper growth and development, such as protein, calcium, vitamin D, vitamin A, vitamin C, fiber, and iron. On average, children living in the U.S. obtain almost 25% of their daily calories from snack foods. Unfortunately, a large percentage of those snack foods are low in nutritional value and contain too much added salt, fat, and sugars. It's important for children to learn to choose healthy snacks most of the time. If healthy snacks are provided in child-size portions, 1-2 hours before mealtime, they will not spoil kids' appetites.

3 Hungry children need breakfast.

Encourage students to eat breakfast. Children who eat breakfast perform better in school. Breakfast eaters have more energy, greater concentration, and better muscle coordination in the morning. They score higher on tests, are less likely to cause discipline problems, and complain less of headaches and stomachaches. Morning hunger may affect children at the worst time – when they are often studying the core subjects. Encourage students to eat a healthy breakfast every day.

4 Children need three servings of dairy foods per day.

Milk and other dairy products contain calcium and vitamin D to help kids' bones grow strong. A serving for a young child is one cup of milk or yogurt or 1½ oz. of cheese. Some children have trouble digesting the natural sugar (lactose) found in milk. Most children who are lactose-sensitive can drink milk in small amounts. They are also usually able to enjoy yogurt and hard cheeses.

5 Children should be encouraged to eat a variety of foods.

It's not as important for children to memorize how much food they should eat from each group as it is for them to enjoy several different kinds and colors of food. Teach children to enjoy healthy foods most of the time. Within the five food groups that means eating more fruits, vegetables, low-fat dairy foods, and whole grains; and fewer meats, high fat foods, sugary foods, and processed or refined grain foods such as sweets and crackers.

6 Most food (even chips and candy) can be part of a healthy diet.

Most nutrition experts agree there are no "bad" foods, only foods we should eat less of. Any food in moderation – even chips and candy – can fit into a healthy diet. Combination foods, such as burgers, pizza, and tacos can also fit into a healthy diet. It's true these foods are very often high in fat and calories; however, they are also high in nutrients, so calorie for calorie, in moderation, they can be a healthy choice.





7 Taste-testing is important.

One of the best ways to teach children to enjoy a variety of healthy foods is to allow them to touch, feel, smell, and taste them. Don't worry if they are hesitant to experience a new food or if they express that they don't like it. Research shows that for most children, it takes many tastes to like or to begin to like a new food.

8 Portion size matters.

The portions of food children eat today are much larger than they were 10 or 20 years ago. Large portions are one of the contributing factors to becoming overweight. Teach students to listen to their tummies and to stop eating when they are not hungry anymore, instead of when they are full.

9 Sugary drinks should be limited.

Many children today frequently consume high sugar beverages such as soda, pop, juice drinks, and sweet teas. These high sugar drinks are loaded with calories that can lead to weight gain and tooth decay. In addition, when children fill up on sugary drinks they often decrease their consumption of other healthier – and lower calorie – beverages such as water, low-fat or fat-free plain or chocolate milk, and small amounts of 100% fruit or vegetable juice.

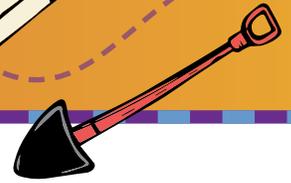
10 Sugar does not cause hyperactivity or ADD.

The causes of these disorders are not fully understood. Sugar, food coloring, food additives, and food preservatives have been suggested as factors but no research supports any cause-and-effect between diet and hyperactivity or Attention Deficit Disorder.

DON'T FORGET PHYSICAL ACTIVITY!

**Children should be active 60 minutes a day.
Exercise does not have to be organized or regimented as
long as kids are having fun and MOVING!**

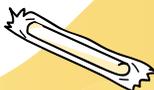




Food in the Classroom

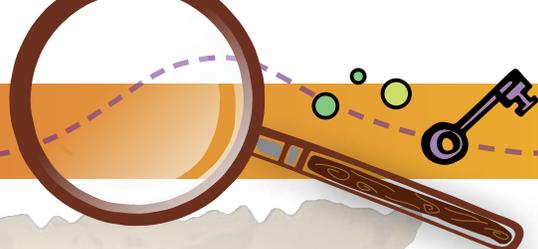
Make sure you and your students handle food safely with these “be clean, be careful” healthy eating tips.

- **Wash hands.** Have students wash their hands with soap and warm water for 20 seconds before and after handling food.
- **Clean surfaces.** Have students clean or wash the table or work surface before and after preparing food. You can disinfect desks with a simple bleach/water solution, or you can use disinfecting wipes.
- **Wash equipment.** Make sure all cooking and serving utensils, equipment, and food storage containers are clean. Store them in a container with a cover.
- **Check for food allergies.** Before cooking or serving food to students, be sure to find out from the children’s parents whether or not they have any food allergies. The best way to do this is in writing. If you have a child in your class with a peanut or tree nut allergy, do not use these at all – anywhere in the classroom – when preparing food. Some allergies (especially peanut allergies) are so severe that even being around the food can cause a life-threatening allergic reaction.
- **Be aware of choking risks.** Young children are at risk for choking. To reduce the chances of a child choking, cut food into small pieces, make sure children are seated at all times when eating, and make sure meal and snack times are always supervised by an adult.
- **Teach responsibility.** Have students clean up after themselves and throw away their own trash. That way they won’t be handling other students’ plates so there will be less chance of germs spreading to others.
- **Encourage, don’t force.** New foods take time. Encourage students to try new foods, but never force them or punish them if they don’t. Let them touch and smell new foods. When kids are allowed to “play” with their food they are more likely to try it. To encourage new foods ...
 - Involve students in preparing healthy foods and snacks.
 - Serve foods with eye appeal. Include a variety of textures, colors, and smells.
 - Serve finger foods. Kids especially like crunchy and crispy foods.
 - Serve cold foods like milk and yogurt cold, not at room temperature.
 - Put a small amount of a new food next to a more familiar food.
 - Make food tasting fun. Keep the atmosphere relaxed.
 - Avoid asking if a food tastes good. Instead, discuss shape, texture, color, etc.
 - **Set a good example. Try new foods yourself. Your students will follow your lead.**





Discovery #1: Snack Artifacts



Time

45 minutes – The Lesson
15 minutes – Snack Break

Overview

Students learn how archaeologists use artifacts, facts, evidence, and clues to make new discoveries, solve mysteries or problems, or learn about the habits of people. They also learn why we need to eat snacks, and they practice analyzing a set of snack artifacts.

Objectives

Students will...

1. Define the term snack and identify things they know and don't know about snacks.
2. Explain why snacking is important.
3. Demonstrate an understanding of fact vs. opinion.
4. Set a goal to collect a personal set of snack artifacts.
5. Optional - Make and taste a healthy snack.

Materials

- large flip chart paper (2 sheets)
- sample Snack Sack (see *Get Ready*, below)
- grocery bag, one per student
- *My Snack Tracks* worksheet (p. 14), one per student
- *Family Page*, one per student (p.13)
- optional - food for healthy snack, (p. 11)



WORDS TO KNOW

● snack	● scientist
● artifact	● fact
● archaeology	● opinion
● archeologist	



Get Ready

1. Create a sample Snack Sack: collect clean wrappers and containers of 5-10 snack items, both healthy and not-so-healthy. Try to represent all of the food groups (see MyPlate, p. 5). For foods not commonly found in packages (e.g., banana) or where the packages are difficult to collect (e.g., gallon of milk, peanut butter), write the words on a piece of paper or 3 X 5 card. Put all the snack artifacts in a bag. This is the Snack Sack.
2. Create two giant lists on the flip chart paper and post: *Facts We Know About Snacks* and *What We Want to Know About Snacks*.
3. Write the Words to Know (above) on the board, or make vocabulary word cards for display. Define the words as you progress through the lesson.

Words to Know

- **snack:** a small serving of something we eat between meals when we are hungry.
- **artifact:** an object with a purpose that was made by people in the past.
- **archaeology:** the study of anything ancient.
- **archaeologist:** a scientist who studies human history by examining remains and artifacts.
- **scientist:** a person who asks questions and tries different ways to answer them.
- **fact:** something that happens, has happened, or is real and exists.
- **opinion:** a particular person's (or group's) feeling, thought, judgment, belief or estimation.





Discovery #1: Snack Artifacts

Introduction

Set the Stage!

1. Tell students that one of your hobbies is archaeology. Explain that archeology is a science that is the study of anything ancient. Explain that archaeologists use artifacts to learn about the past, solve mysteries, and make new discoveries.

2. Tell students that you recently found a set of artifacts. Let students buzz with a neighbor about what they think the word “artifacts” means. Illustrate the concept by providing an example such as:

Imagine that one day you discover a wooden trunk in your attic or garage. When you break the lock you find the trunk is filled with clothes, photos, letters, tools, health records, and other things that belonged to your great-grandfather. You have found a set of artifacts.

3. Give the class clues about the meaning of the word artifacts by adding the word archaeologist to the board. Explain:

- **Archaeologists** are **scientists** who investigate the past.
- **Archaeologists** collect and study **artifacts**.
- **Artifacts** can give us information about the habits and ways a group of people lived. Define **artifacts**.

4. Let the students describe any **artifacts** they may have collected, seen in a museum, or heard about.



The Lesson

Learn it!– What’s a Snack?

1. Tell students that for the next few weeks, they will be working on becoming *Super Snack Explorers* and that they will be investigating their own snack habits using **artifacts, science, facts, opinions,** and clues.

2. Have students work in pairs to answer this question: *What is a snack?* Call for definitions. Help them generalize that a **snack** is a small meal or mini meal we eat between two larger meals. Write the definition of snack on the chart paper, *Things We Know About Snacks*.

3. Ask: *Why do we need snacks?* [for nutrition, for growth, for energy] Write these facts on the *Things We Know about Snacks* chart paper.

4. Define **fact** vs. **opinion**. Have students buzz in pairs to come up with a fact they know about snacks. Discuss and add the facts to the list, *Things We Know About Snacks*. Note: Preparing the list might point out some misconceptions students have about snacks. If this happens add a section to the bottom of the facts list: *What We Think We Know About Snacks*. Explain that over the next few weeks they will investigate these questions.

5. Next, have the pairs answer this question:

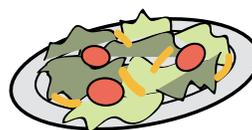
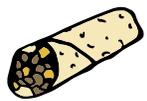
What is a healthy snack? Listen to answers and explain that they’ll be learning a lot more about healthy snacks as they work through the Snack Sleuths program.

6. Direct students’ attention back to the *What We Want to Know About Snacks* list. Have the pairs identify together one or two things they want to know. Write their questions on the list.

Expect questions like:

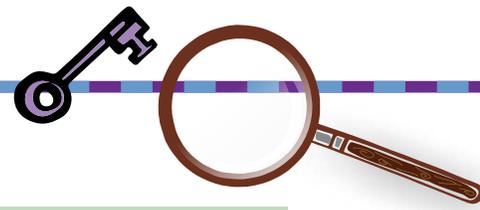
- *Is it OK to Snack?*
- *Is it OK to eat candy for a snack?*
- *How much should we eat?*
- *How many snacks should we eat in a day?*
- *Is it OK to snack before bedtime?*

7. Keep both lists posted. Use them to trigger further discussion throughout the unit.





Discovery #1: Snack Artifacts



Practice It! Investigate Snacks

1. Show the students the sample Snack Sack you created and display the artifacts inside. Remind the class that while the word archaeology means the study of anything ancient, archaeology begins the minute something is thrown away. (Reference the wrappers in your sample Snack Sack.)
2. Explain that today they will look at a set of snack artifacts and that the artifacts give clues about how a person eats and what they eat (in this case, snacks).
3. Give each student a copy of the My Snack Tracks worksheet, or post it on an overhead or whiteboard where everyone can follow along. (This is practice for their homework.) Using foods from the sample Snack Sack, walk students through the directions for filling out the My Snack Tracks worksheet.
4. Explain, using artifacts from the sample Snack Sack, how to complete these columns on the worksheet: *Snack I Ate*, *When*, and *Who Chose?* Review how to use the letters I, W, and S in these columns. (See worksheet for further explanation.)
5. Tell students not to worry about the remaining columns. Those will be filled out another time.

Finish It!

1. Give each student a grocery bag. Have them write their names on their bags. Use tape and a permanent marker if bags are plastic.
2. Explain that instead of throwing them away, the class will collect their own snack artifacts and bring them to school to study and investigate.
3. Explain that students are to keep track of the snacks they eat for three days, complete the *My Snack Tracks* worksheet each of the three days, and bring it back to class. Have them write the due date on the worksheet.
4. Review the rules for collecting snack artifacts, 1-6 on the worksheet.
5. Make the Super Snack (optional).

Super Snack

CHEESE CRITTERS

Serves 12

INGREDIENTS

12 cheese sticks, one per child, any kind
 Pretzels and/or chow mein noodles
 Raisins or mini chocolate chips (optional)

DIRECTIONS

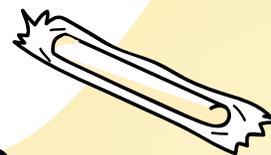
Stick pretzels into cheese to create crafty, edible critters! You can break the pretzels into different lengths to make legs, tails, antennae, and tongues.



Wrap Up

Remind students that they...

- **Learned** the definition of the words: snack, artifact, archaeology, archaeologist, scientist, fact, and opinion; and learned why we need to eat snacks.
- **Set a goal** to keep track of the snacks they eat for three days using the *My Snack Tracks* worksheet.
- **Tasted (if completed)** a healthy snack. Send home the *Family Page* with the recipe, p. 13.

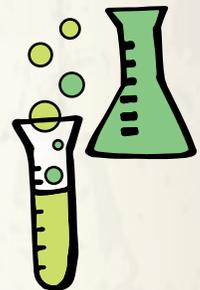
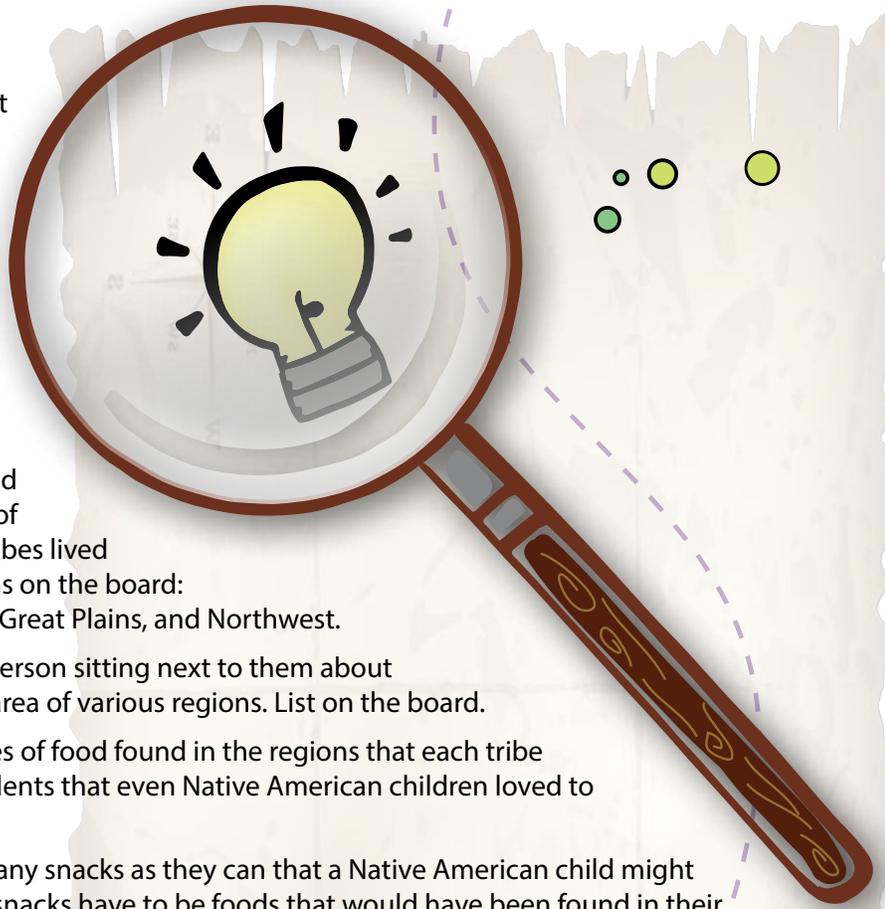




Discovery #1: Snack Artifacts

Bonus Ideas and Going Further

- 1. Fact vs. Opinion.** Have each student write six sentences about his/her favorite snack food. Three must be facts, and three opinion statements. As time permits, allow students to read a sentence aloud while others guess whether it is a fact or an opinion.
- 2. Native American Snack Habits.**
 - Review information already learned about the Native American tribes of North America. Discuss that the tribes lived in different regions. List the regions on the board: Southwest, Southeast, Woodland, Great Plains, and Northwest.
 - Ask the students to talk with the person sitting next to them about the climate and landscape of the area of various regions. List on the board.
 - Discuss with the students the types of food found in the regions that each tribe lived in. List on board. Tell the students that even Native American children loved to eat snacks.
 - Their task is to come up with as many snacks as they can that a Native American child might have eaten. Tell students that the snacks have to be foods that would have been found in their Native American region. Give the example: Would the Southwest Native American children eat strawberries as a snack?
 - Ask students to guess what kinds of snack artifacts they might dig up in that region. Tell the students to pick one region and pretend they are a child living in a Native American tribe in that region. Have the students get into groups based on the chosen region. Each group should make a list of the snacks they would most likely eat if they lived in that region. Tell the students that Native American children liked a variety in their snacking just like they do. Have the groups share their snack ideas and ideas about regional snack artifacts with the class.





FAMILY PAGE

Discovery #1: Snack Artifacts

Student Handout



Dear Family,

We're learning about healthy snacks in school! Our class is getting ready to dig up some fascinating facts in a nutrition program about snacks.

Snacking was not encouraged not too long ago. Today, we know that children need healthy snacks. Snacks can supply kids with the nutrients they need to grow and stay healthy. You can help your child become a healthy snacker by:

- Keeping healthy snacks from the five food groups on hand, such as fruits, vegetables, whole grains, and low-fat and fat-free dairy foods.
- Letting your child pick his or her own snacks from a few healthy choices.



Some of our class activities may include food tasting. Please fill out the form below to let me know if there are any foods your child is allergic to or cannot eat. If you have any questions about our snacking unit, please contact me.

Please sign below and return by: _____ Date _____ Child's Name: _____

My child has no allergies or restrictions.

My child has the following allergies or restrictions: _____

Parent/Guardian Signature: _____ Date _____

Please return this portion to the school.



At Home You Can Make this Easy Super Snack

CHEESE CRITTERS

INGREDIENTS

cheese sticks, one per child, any kind
pretzels and/or chow mein noodles
raisins or mini chocolate chips (optional)

DIRECTIONS

Stick pretzels into cheese to create crafty, edible critters! You can break the pretzels into different lengths to make legs, tails, antennae, and tongues.

Another Way: Change it up. Use different size wedges or shapes of cheese.

Super Snack Tip: Healthy snacks are important. Most children and adults do not eat the recommended amount of fruits, vegetables, whole grains, and low-fat or fat-free dairy foods. Try to eat more of these at snack time.

What We Learned: We learned that a snack is something you eat between meals and that we need snacks for energy, nutrition, and growth. There are lots of different things we want to learn about snacks.

Weekly Goal

Students - Keep track of the snacks you eat for three days using the *My Snack Tracks* worksheet.





Discovery #2: Investigating Our Snack Habits



Time

30-45 minutes – The Lesson
15 minutes – Snack Break

Overview

Students begin to analyze their Snack Sacks and group them in different ways according to food group, combination foods, and “others”. They construct a snack graph and analyze their snacking habits based on the data.

Objectives

Students will...

1. Learn the names of the five food groups and identify foods that belong in each group.
2. Demonstrate understanding of the following terms: combination foods and “others” as they relate to the food groups.
3. Assess personal snack choices in terms of contributions to food groups.
4. Construct a graph using data from the analysis of the Snack Sacks and manipulate the data mathematically.

5. Set a goal to try a new snack from the five food groups.
6. Optional - Make and taste a healthy snack.

Materials

- students’ Snack Sacks
- students’ partially completed MySnack Tracks worksheets
- *Super Snack Discoveries* mini poster, one per student (pg. 19)
- long sheet of chart paper or white board
- crayons or colored white board markers
- *Family Page*, one per student (p. 20)
- optional - food for healthy snack, (p.18)



WORDS TO KNOW

- MyPlate
- five food groups
- archaeology
- combination (foods)
- “others” (foods)
- data

Get Ready

1. On a long sheet of paper, prepare a blank graph as shown below. Do not color in the rows, students will do that.

Sample Snack Artifacts Graph

Food Group	Number of Snacks Eaten	TOTAL
Fruits		26
Vegetables		20
Grains		32
Protein		10
Dairy		42
Combination		16
Others		15





Discovery #2: Investigating Our Snack Habits

Get Ready, continued

2. Review the information on **MyPlate** and the **five food groups** in the Introduction (below).
3. Write the following directions on the board:
 - a. Pick a Scribe, a Guide, a Checker and Timekeeper.
 - b. Take turns showing your snack collections.
 - c. Think about two different ways you could organize your group's snack collection.
4. Preview Discovery #3, *The Snack Quack*. The teacher/educator will need to collect products or containers for this activity. See if students brought any of the items you need for *The Snack Quack* lesson (see p. 21) in their Snack Sacks.
5. Write the *Words to Know* (right) on the board or make vocabulary word cards for display. Define the words as you progress through the lesson.

Words to Know

- **MyPlate:** a symbol that shows us a healthy way to fill our plates. A visual representation of the five food groups.
- **five food groups:** MyPlate has five food groups: fruits, vegetables, grains, protein and dairy.
- **combination (foods):** foods that contain more than one food group, such as pizza or burritos.
- **"others":** foods that are not very nutritious, such as soda or candy, and do not fit into any of the five food groups.
- **data:** a collection of facts or evidence to be analyzed.



Introduction

1. Have students take out their Snacks Sacks and partially completed *My Snack Tracks* worksheets.
2. Tell students to get ready to organize their artifacts. Explain that the information they collect will provide the data for their *Snack Artifacts* graph. Define the word **data**.
3. Ask students to hypothesize about what they might learn from their class's snack collection. Define the word **hypothesize**.
4. Divide the class into small groups of 3-4 students. Describe the job descriptions written on the board. Allow group members to decide who will do what job.

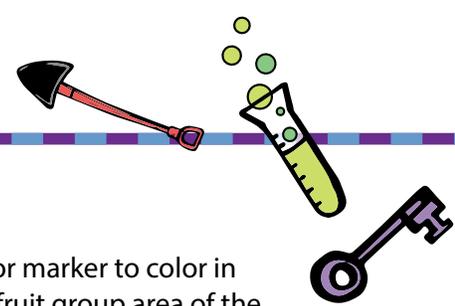
Job Descriptions

- **Scribe:** Writes down the groups' ideas and answers.
- **Guide:** Manages project. Keeps the group on task.
- **Checker:** Reads directions and handouts to group members.
- **Timekeeper:** Keeps track of time allotted for task.





Discovery #2: Investigating Our Snack Habits



The Lesson

Investigate It! Our Snack Sacks

1. Give the groups 10 minutes to complete the two tasks below:
 - Each student briefly shows his or her snack collection.
 - Together, come up with three different ways to organize their snack collections.
2. Have each group share their ideas for organizing the snack collection. Write the different organizational strategies they suggest on the board.
3. If no group mentioned sorting the snacks by food group, point out that sorting by food group is one way to organize the snack artifacts.
4. Use the *Super Snack Discoveries* mini poster (p. 19) to review the names and health benefits of each food group. As you review, point to the food group name listed on the blank *Snack Artifacts* graph you prepared and posted.
5. Point out that foods, such as pizza or burritos, that contain foods from two or more food groups, are called **combination foods**. Explain that foods that are not very healthy and do not fit into any of the **five food groups**, such as candy or soda, are called **"others"**. Discuss these two categories with students to make sure they understand their meaning.
6. On their *MySnack Tracks* worksheets, have the students write the food group names and categories from left to right in the vertical blank columns in this order: fruits, vegetables, grains, protein, dairy, combinations, and others.

Graph It!

1. Explain that as archaeologists and scientists, they will be analyzing their group's data and that the data reveals information about their snack habits. Define the word data.
2. Start with the fruit group. On their individual *MySnack Tracks* worksheets, have each student put a star in the Fruit Group column (column 1) for each fruit group snack he or she ate. Check for understanding by asking students to hold up one of two of the fruit snacks they starred.
3. Have the scribes add up the number of fruit group snacks that their group members consumed in total. Call up the scribes and have

them use the red crayon or marker to color in their group's total on the fruit group area of the graph. (Use the number line on the bottom of the chart as a guide.)

4. Point out to the class that the red bar the scribes created on the graph adds up to the grand total of fruit group snacks consumed by the class. It represents the class's fruit group snack data.
5. Use the same procedure for vegetables (green), grains (orange), proteins (purple), combination foods (brown) and others (black).
As you continue...

- Students should fill out their own individual *My Snack Tracks* worksheets. They should classify their own snacks eaten by placing a star in the appropriate food group column.
 - Students should place an X for foods consumed that are combination foods.
 - Students should place a dash for foods consumed in the others category, e.g., soda or chips.
6. Have scribes color in their group's data for each of the five food groups on the class graph using the appropriate colors.

Analyze It!

1. When the class *Snack Artifacts Graph* is finished discuss the following:
 - *What could archaeologists or scientists learn about our snack habits by looking at our data?*
 - *What would they think is our favorite type of food?*
 - *What would they think is our least favorite type of food?*
 - *How do you think they would describe us – as a group – if they found our *Snack Artifacts Graph*?*
 - *According to the data, does our class eat a wide variety of snacks? Can you tell by looking at the chart? Why or why not?*
2. Have students set a goal to try a new snack from the five food groups or a healthy combination snack, such as a bean burrito.
3. Make the Super Snack (optional).





Discovery #2: Investigating Our Snack Habits

Super Snack

TRAVELER'S SPICY MUNCH AND CRUNCH

Serves 12

INGREDIENTS

- 6 cups popped, unsalted popcorn
- 3 cups cereal squares (rice, corn or wheat)
- 1 cup mini-pretzels
- 2 tablespoons butter, melted
- 2 teaspoons low-sodium taco seasoning
- 2 tablespoons grated Parmesan cheese (optional) 4 oz. cheddar cheese, cut into 1/2-inch cubes

DIRECTIONS

Combine popcorn, cereal and pretzels in a large bowl. Combine butter and taco seasoning and drizzle this over popcorn mixture. Sprinkle with Parmesan cheese and toss to coat. Store in an airtight container.

Optional - toss in the cheddar cheese cubes just before serving.

Bonus Ideas and Going Further

1. Snack Challenge:

Create a food group die out of milk cartons. Cut the tops off of two clean, paper milk cartons. Fit one carton inside the other to make a cube. On each side of the cube glue a different color of paper: On the blue paper write "dairy;" on the purple paper write "protein;" on the red paper write "fruit;" on the orange paper write "grains;" on the green paper write "vegetables;" and on brown paper write "combinations."

Play the Game: Divide the class into four teams. Make a chart with six columns, one for each food group and one for combination foods. Label the columns and introduce the categories. List the teams on the board to keep score.

Explain the rules:

- Teams take turns rolling the die.
- Teams have to name a snack food from the food group shown on the die.
- As snacks are named, you (or a student) will write them on the chart or board in the appropriate column.
- Teams earn a point if they can name a new snack from that food group. They cannot rename snacks already on the list.
- If a team names a snack that is in the wrong food group category, they get zero points that turn.
- A team wins when it has collected five points.

2. **School Snack Problems:** After learning key language and words for solving multi-step, mathematical word problems, and after completing this unit and discussing healthy snack choices from the five food groups, students will work with a partner to develop five good multi-step word problems. The word problems must be multi-step, contain specific math language (keywords), and be related to healthy snacks.

For example: Mrs. Nichols wants to serve each 4th-grade student half of an apple for a snack each Monday for the entire 9 week marking period. If there are 6 classes with 25 students in each class, how many apples will Mrs. Nichols need in all?

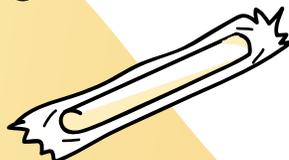
Step One: $6 \times 25 = a$

Step Two: $(a \times 9) / 2$

Wrap Up

Remind students that they...

- **Learned** the names of the five food groups and the definitions of data, combination foods, and "others".
- **Set a goal** to try a new snack from one of the five food groups or a combination snack at home this week.
- **Tasted** (if completed): a healthy snack. Send home the *Family Page*, p. 20.
- **Should keep** their partially completed *My Snack Tracks* worksheet.





Super Snack Discoveries Mini Poster

Super Snack Discoveries

Eat Healthy Snacks From The Five Food Groups Every Day



to heal cuts and bruises!

FRUITS

1-3 cups



for healthy skin and eyes!

VEGETABLES

2 cups



for energy!

GRAINS

5 oz. (half should be whole grains)



for strong muscles!

PROTEIN

5 oz.



for strong bones and teeth!

DAIRY

3 cups



STRAWBERRY



BANANA



GRAPES



JUICE



WATERMELON



ORANGE



RAISINS



BROCCOLI



TOMATOS



CARROT



PEAS



CORN



CUCUMBER



CELERY



ANIMAL CRACKERS



MUFFIN



BREAD



PASTA



WHOLE-GRAIN BAGEL



CEREAL



RICE



EGG



BURRITO



PEANUT BUTTER



TUNA



STEAK



BAKED BEANS



YOGURT



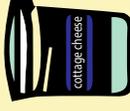
CHEESE STICK



WHITE MILK



PUDDING



COTTAGE CHEESE



CHOCOLATE MILK



CHEESE CUBES

Depending on your age, sex, and level of physical activity, you may need more or less food from each food group. Go to www.choosemyplate.gov to get a personal daily food plan for you.



Dear Family,

We're on unit 2 in the Snack Sleuths program. We are discovering more about healthy snacking!

Eating healthy snacks is important. When children eat healthy snacks, they get the energy and nutrients they need to grow and stay healthy.

Healthy snacks come from the five food groups of MyPlate. There are many different foods in each group. Healthy snacks can also be combination foods. These foods include more than one food group such as a bean burrito or yogurt with fruit added. Foods that are not very healthy and are not part of any of the five main food groups are called "others." Foods in the "others" group include soda and pop, chips, and sweets.



Both kids and adults should eat healthy snacks most of the time. Try a new healthy snack or healthy combination food for a snack this week.

At Home You Can Make this Easy Super Snack

TRAVELER'S SPICY MUNCH AND CRUNCH

Serves 12

INGREDIENTS

- 6 cups popped, unsalted popcorn
- 3 cups cereal squares (rice, corn or wheat)
- 1 cup mini-pretzels
- 2 tablespoons butter, melted
- 2 teaspoons low-sodium taco seasoning
- 2 tablespoons grated Parmesan cheese
- optional - 4 oz. cheddar cheese, cut into 1/2-inch cubes

DIRECTIONS

Combine popcorn, cereal, and pretzels in a large bowl. Combine butter and taco seasoning and drizzle this over popcorn mixture. Sprinkle with Parmesan cheese and toss to coat. Store in an airtight container.

Optional - toss in the cheddar cheese cubes just before serving.

Another Way: Change it up. Use different kinds of whole grain cereal or crackers.

Super Snack Tip: Have something healthy on hand for when kids come home hungry. Help them reach for a healthy snack.

What We Learned: We learned that healthy snacks contain foods from the five food groups: fruits, vegetables, grains, protein and dairy.



Weekly Goal

Name: _____

Question	Parent	Child
What snack did you try?		
Which foods groups are in your snack?		
Was your snack a combination food?		

Please return this portion to the school by: _____





Discovery #3: Snack Quacks



Time

30-45 minutes – The Lesson
15 minutes – Snack Break

Overview

Students work in cooperative groups to analyze a collection of snacks to determine if the snacks are “quacks” or real members of one of the five food groups. They decipher nutrient and calorie graphs to try to figure out what qualifies a snack for membership in the five food groups.

Objectives

Students will...

1. Distinguish nutrient-rich five food group snacks from not-so-healthy snacks that are “quacks.”
2. State that five food group snacks are a source of energy, and discuss the main nutrients provided by each food group and their function.
3. Brainstorm ideas to replace quacks with healthy snacks.
4. Set a goal to replace a quack with a healthy snack this week.
5. Optional - Make and taste a healthy snack.

Materials

- dictionaries
- *Super Snack Discoveries* mini poster, one per student (p. 19)
- students’ Snack Sacks, from Discovery #2
- *Digging Up the Facts on Snacks* worksheet, one per student (p. 25)
- full or empty packages/cans/containers of a peanut butter cup, a fruit roll-up, a soft drink, a bag of chips, a frozen burrito or a frozen pizza package, and three or four healthy snacks.
- students’ *My Snack Tracks* worksheets
- *Deciphering Snacks Information Sheets 1-4*, one set for each group
- rulers
- *Family Page*, one per student (p.30)
- optional - food for healthy snack (p. 23)



WORDS TO KNOW

- quack
- nutrients
- hypothesis
- calories

Get Ready

1. Review the job descriptions on p. 16. Assign students to 3-4 person work groups. Allow students to choose jobs.
2. Obtain the packages of food for the items listed under Materials (above).
3. Copy the *Digging Up the Facts on Snacks* worksheet. Also, duplicate the *Deciphering Snacks Information Sheets 1-4*, one set per group.
4. Write the Words to Know (above) on the board or make vocabulary word cards for display.

Words to Know

- **quack:** a snack that looks like it might be a healthy snack from one of the five food groups but isn’t. Quacks usually contain additional ingredients such as added fat and sugars and have more calories than they do nutrients.
- **hypothesis:** an educated guess.
- **nutrients:** substances found in food such as protein, fat, carbohydrates, vitamins, minerals, and water. We need nutrients to live and grow.
- **calories:** a unit of measurement. It’s a way of describing how much energy your body could get from eating or drinking a food. When you eat more calories than you need, you gain weight; when you eat fewer, you lose weight.





Discovery #3: Snack Quacks

Introduction

What's a Snack? What's a Quack?

1. Direct students to their *Super Snacks Discoveries* mini posters, and review the names of the five food groups. Review why we need to eat snacks [for energy, to grow, for health] and the main nutrients provided in each food group.
2. Distribute the *Digging Up Facts on Snacks* worksheets, one per student.
3. Write the word quack on the board. Let students call out what they think the word means. Have the class look up “**quack**” in their dictionaries.
4. Have the students talk within their groups about why archaeologists and scientist watch out for fakes. Explain that when archaeologists dig up a site, they often find artifacts that are rare and valuable. Sometimes people make fakes to make money. They try to sell the fakes as real treasures.
5. Define quacks as snacks that have real food groups mentioned in their names but might also have a lot of other ingredients we don't need, such as added fats, sugars, starches, flavors, colors, and more.

The Lesson

Practice It!

1. Focus the students' attention to the snacks you've gathered. Point out that there are snack quacks present and that their job is to uncover the quacks.
2. Call attention to the table on the *Digging Up the Facts on Snacks* worksheet.
 - Hold up each snack one at a time. Say the name of the snack and emphasize the part of its name that includes a food group food e.g., PEANUT butter cup, FRUIT roll-up.
 - Have the students write the name of each snack on their worksheet in the table.
 - If the students think the snack is real, have them write in the food group they think it belongs in. If they think the snack is a quack, have them check “quack.” Do this in pencil in case students change their answers later.
3. When they are finished, go through the snacks one by one. Have students raise their hands if they think a snack is a quack. Record votes on the chalkboard.

Investigate It!

1. Assign students to groups of four. Assign or let the students pick their roles: Guide, Scribe, Go-For, Checker (See p. 16.)
2. Explain the concept of hypothesizing to students. Talk about how archaeologists and scientists often make a guess - a **hypothesis** - about a question they have. They then look for evidence to prove (or disprove) their hypothesis. Define hypothesis.
3. Have students work in groups to hypothesize about what makes a snack food a quack.
4. Tell the group you are going to give them some new information on snacks. Hand out the *Deciphering Snacks Information Sheets 1- 4*, one set per group.
5. Point out the nutrient bars and the calorie bars. Explain that to be strong and healthy, a body needs nutrients and calories. Nutrients in food keep the body healthy and help you grow. **Calories** give the body energy to work and play.
6. Help students see the nutrient and calorie differences in the snack pairs. Have them line up the edge of a ruler just under the top of the calorie bar for the cheese stick. Ask if any of the nutrient bars are still visible. Have them also do this for the cheese puffs. Ask students what they notice.





Discovery #3: Snack Quacks

7. Have groups go on to compare the rest of the pairs on the *Deciphering Snacks Information Sheets 1-4*. Help students generalize that foods in the five food groups and combination foods usually have nutrient bars that are higher than their calorie bars. These foods help your body grow and give you energy.
8. Snacks from the others category - which are often quacks- generally have higher calorie bars than nutrient bars. These are not very healthy.
9. Discuss the fact that sometimes the nutrient bars for a quack and a five food group snack might look similar because food manufacturers sometimes add nutrients, like vitamins and minerals, to quacks to make them look healthy. In those cases you have to look at the ingredient list to determine if the food contains mostly real food group foods or a lot of added fats and sugars. Check to see if the first item on the ingredient list is a five food group food or an "other."
10. Give the class time to read the *Snack Facts to Know* on the *Digging Up the Facts on Snacks* worksheet.
11. Draw students' attention back to the snacks you gathered. Ask if anyone wants to change their answers based on the new information.
12. Define snack quacks for the class: Snacks that have food group members in their names, or pictures of healthy foods on their packages that look and sound like they are healthy choices but are not true members of the five food groups. These snacks are "quacks".
13. Discuss how the orange and orange soda look similar when you compare bars. Ask - What might be going on here? Explain that sometimes food manufacturers add vitamins and minerals to a food to make it look like it's good for you. Explain that soda is almost all sugar with some vitamins and minerals added to make it appear healthier. Encourage students to drink healthy drinks most of the time such as water, low-fat and fat-free plain and flavored milk, and 100% juice.
14. Hold up each of the demo snacks again. Give students an opportunity to change their worksheets.



Personalize It!

1. Give student work groups time to look through their own collection of snacks from their Snack Sacks. Tell them to identify any quacks in their group's collection. When they discover a quack, have them come up with an alternate snack they could eat instead of the quack that is similar but more nutritious. Discuss the "quacks" and healthy snack alternatives as a classroom.
2. Make the Super Snack (optional).

Super Snack

STRAWBERRY CHEESECAKE SNACKERS

Serves 12

INGREDIENTS

- 12 graham crackers
- 1 cup low-fat ricotta cheese
- 1 jar low-sugar strawberry jam

DIRECTIONS

Spread graham crackers with ricotta cheese and top with strawberry jam.

Wrap Up

Remind students that they...

- **Reviewed** the names of the five food groups and the main nutrients provided by each food group.
- **Learned** the definition of the words quack, hypothesis, nutrients, and calories.
- **Set a goal** to replace a quack with a healthy snack this week.
- **Tasted** (if completed) a healthy snack. Send home the Family page, p. 30.
- **Should keep** the *Digging Up the Facts on Snacks* worksheet. They will need them for a future lesson.





Discovery #3: Snack Quacks

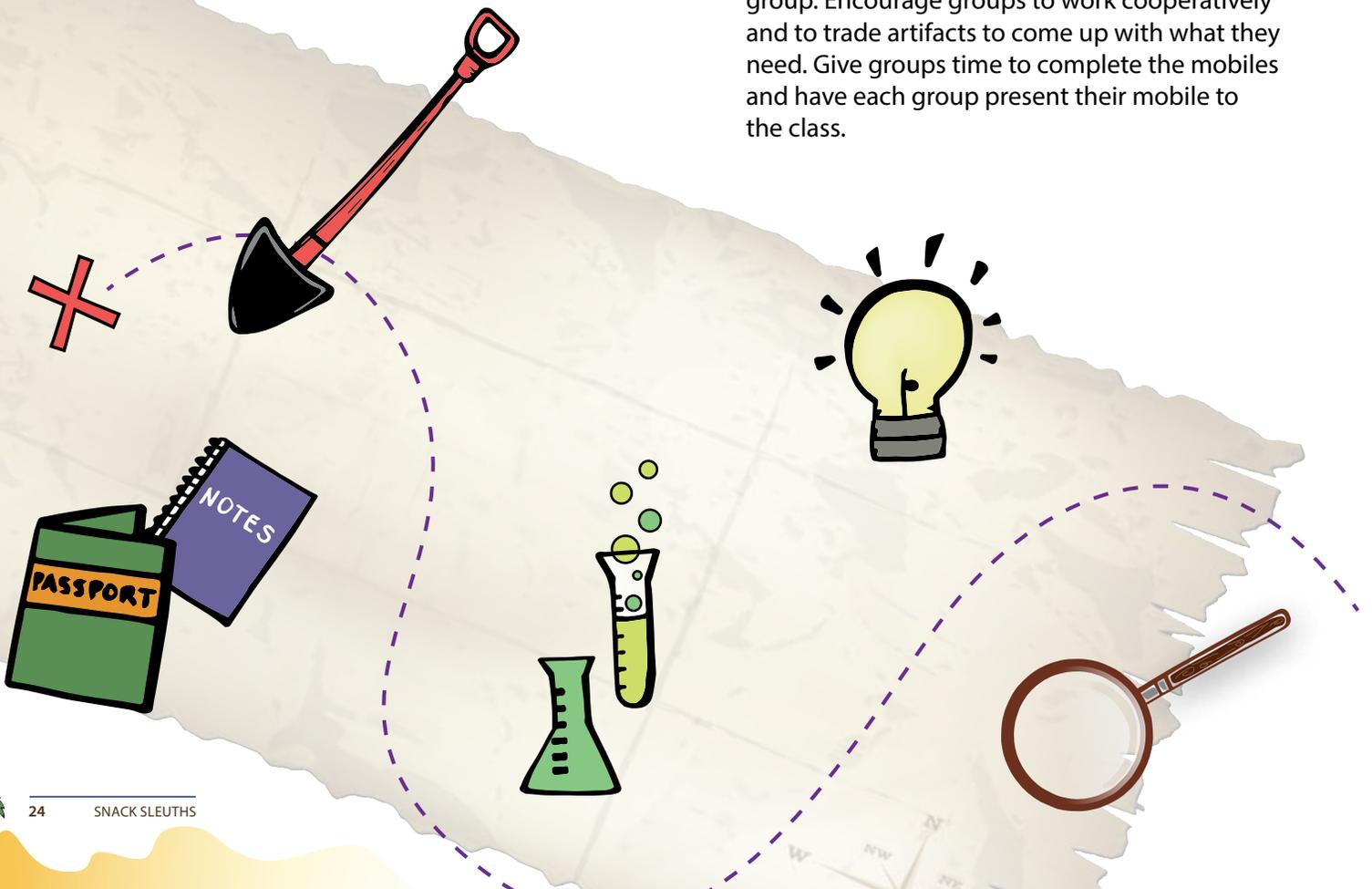
Bonus Ideas and Going Further

1. Compare and Contrast Snack Data Charts.

Have students stay in groups. From the groups' Snack Sack collections, have them choose four different foods (one per student) to create data tables from. The snacks must have food labels. Use the *Deciphering Snacks* worksheet as a model for how to set up the table. Create a column each for protein, vitamin A, vitamin C, sodium, calcium, iron and calories. After the tables are finished:

- Compare and contrast the data. Are any of the snacks quacks? What might be a healthier choice?
- Determine which of the four snacks has the most of each nutrient: protein, vitamin A, vitamin C, etc., out of all the snacks?
- Determine which of the four snacks is most likely the most nutritious. Defend your choice with facts.

2. **Healthy Snack Mobiles:** Set up an art supplies area with wire hangers, yarn, construction paper, magazines with food pictures, food flyers from grocery stores, newspapers, and food labels. Write the names of the five food groups on strips of paper, one name per strip. Make as many strips as you need so that you have a food group strip for every group of four students. Put the strips in an envelope. Remind students that there are all kinds of healthy snacks in the five food groups and many different ways to eat them. Arrange students in groups of four. Explain to groups that they should use their own snack artifacts, and any other materials they can find on the art supplies table, to make a healthy snack mobile. Have each group pick a food group from the envelope. Before they begin to brainstorm, tell students things they have learned that they would like to include on their mobile to teach others about healthy snacks in their food group. Tell them they can use any of the art supplies, artifacts, food pictures or labels, or something they write to encourage others to choose healthy snacks from their assigned food group. Encourage groups to work cooperatively and to trade artifacts to come up with what they need. Give groups time to complete the mobiles and have each group present their mobile to the class.



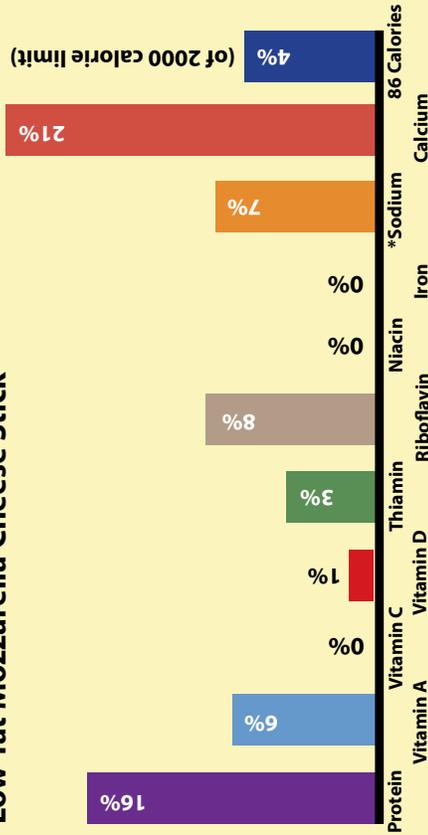
Discovery #3: Snack Quacks

Deciphering Snacks

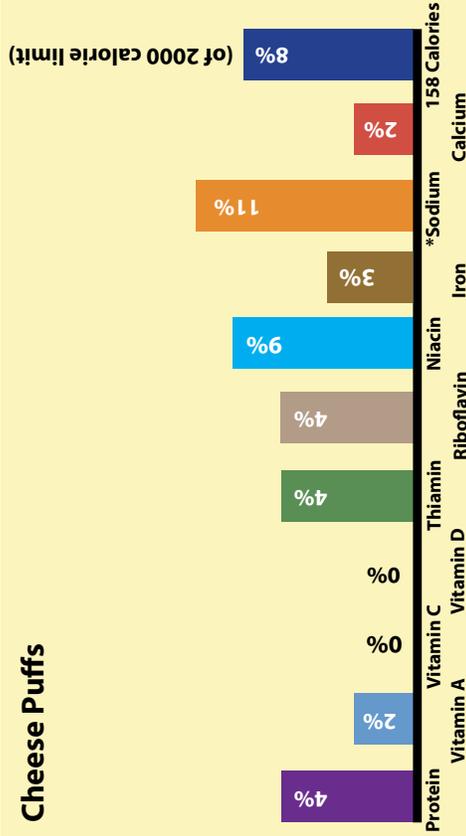
Information Sheet 1

Percentage (%) Definition - For sodium and calories, the % information given represents the percent daily limit for someone on a 2000 calorie a day diet. For all other nutrients listed, % value = daily target. All information derived from USDA Food-a-Pedia.

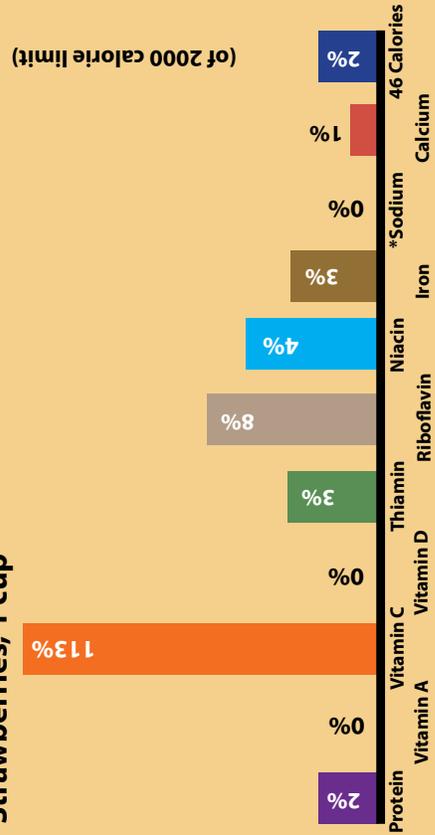
Low-fat Mozzarella Cheese Stick



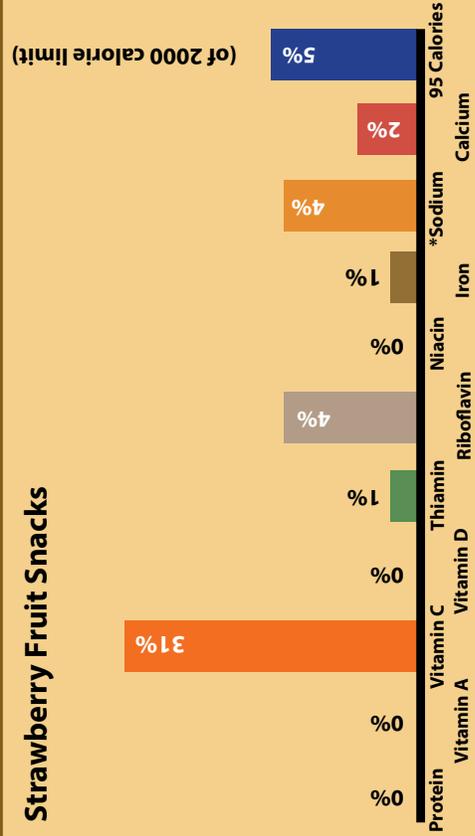
Cheese Puffs



Strawberries, 1 cup



Strawberry Fruit Snacks



*If you are African American or have high blood pressure, diabetes, or kidney disease, reduce your sodium to 1500 milligrams per day. Percents above are for individuals whom may consume 2300 milligrams per day.

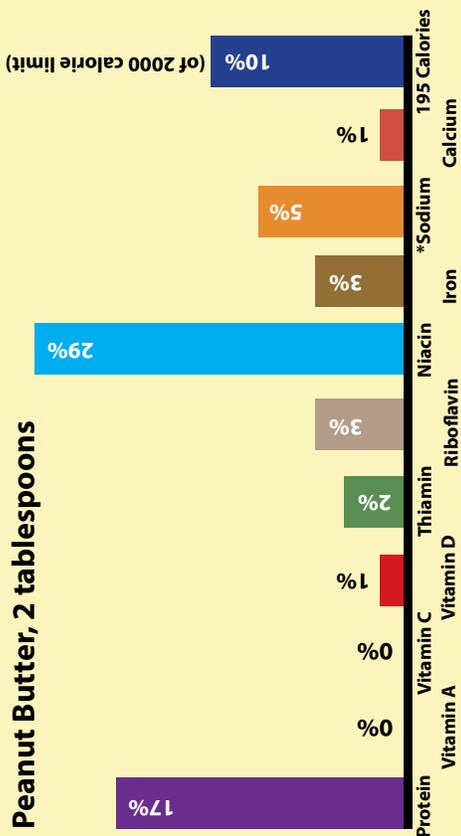
Discovery #3: Snack Quacks

Deciphering Snacks

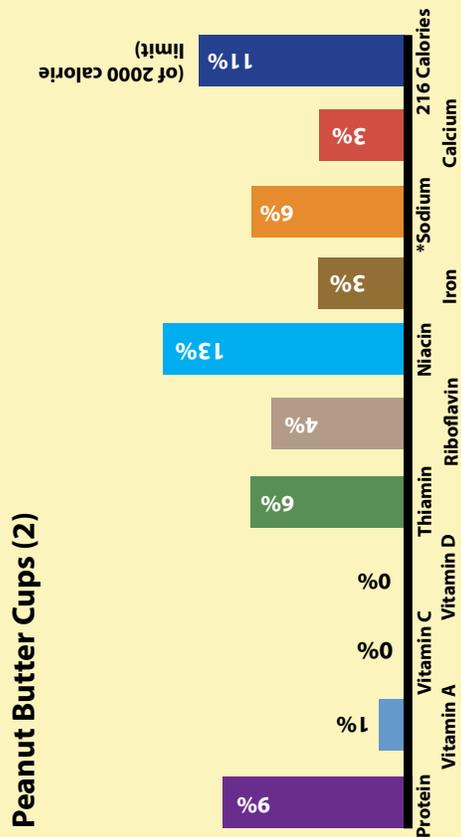
Information Sheet 2

Percentage (%) Definition - For sodium and calories, the % information given represents the percent daily limit for someone on a 2000 calorie a day diet. For all other nutrients listed, % value = daily target. All information derived from USDA Food-a-Pedia.

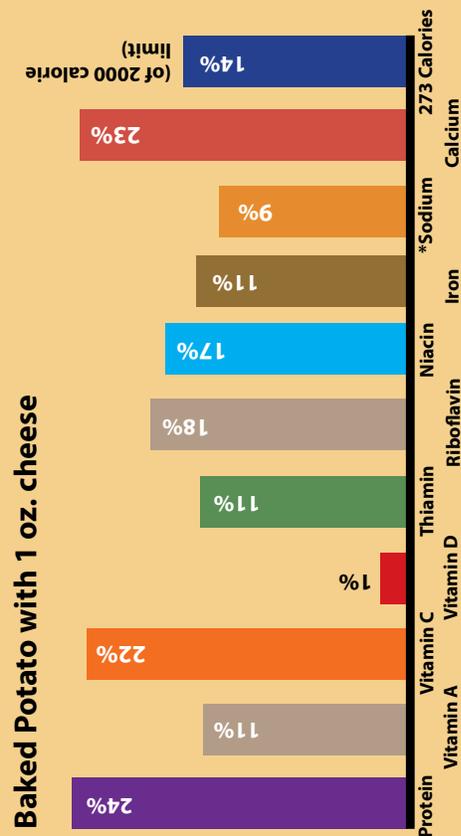
Peanut Butter, 2 tablespoons



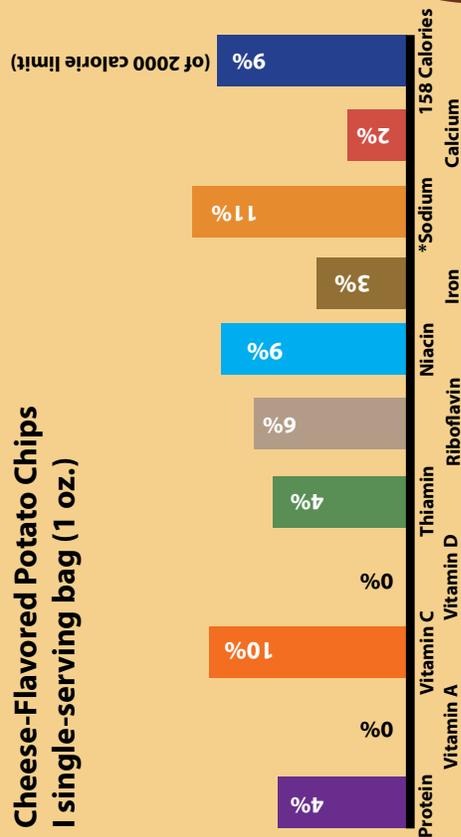
Peanut Butter Cups (2)



Baked Potato with 1 oz. cheese



**Cheese-Flavored Potato Chips
1 single-serving bag (1 oz.)**



*If you are African American or have high blood pressure, diabetes, or kidney disease, reduce your sodium to 1500 milligrams per day. Percents above are for individuals whom may consume 2300 milligrams per day.

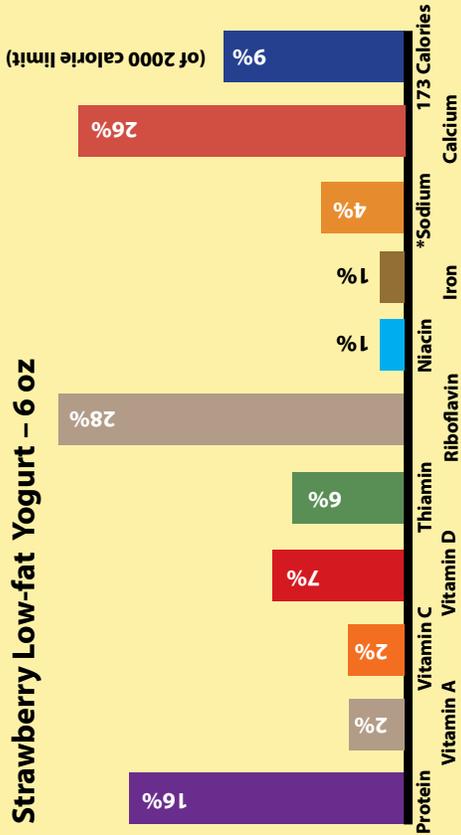
Discovery #3: Snack Quacks

Deciphering Snacks

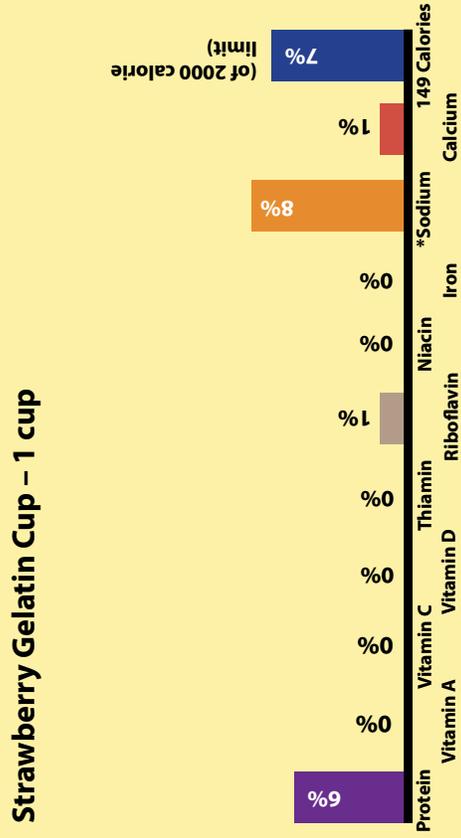
Information Sheet 3

Percentage (%) Definition - For sodium and calories, the % information given represents the percent daily limit for someone on a 2000 calorie a day diet. For all other nutrients listed, % value = daily target. All information derived from USDA Food-a-Pedia.

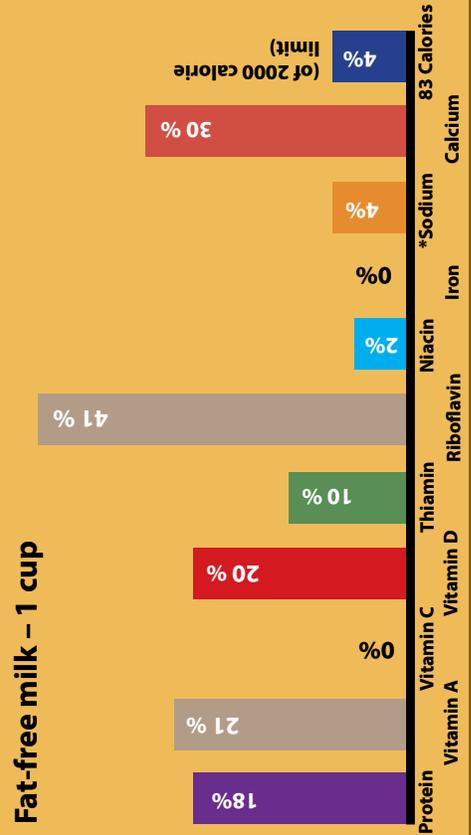
Strawberry Low-fat Yogurt – 6 oz



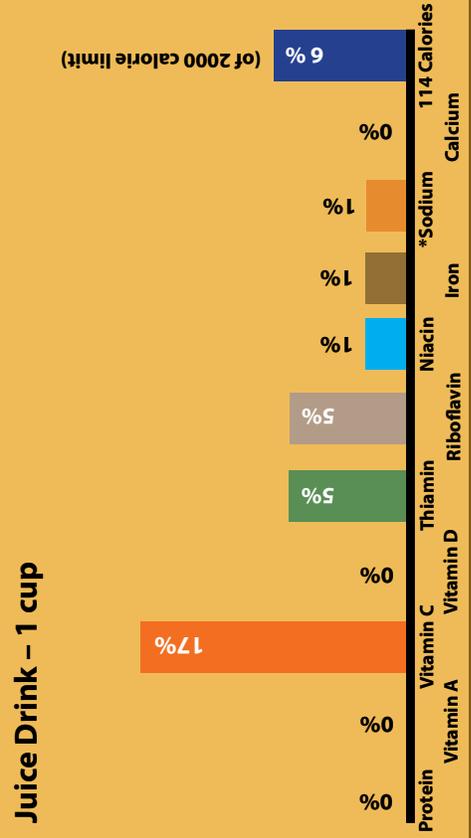
Strawberry Gelatin Cup – 1 cup



Fat-free milk – 1 cup



Juice Drink – 1 cup



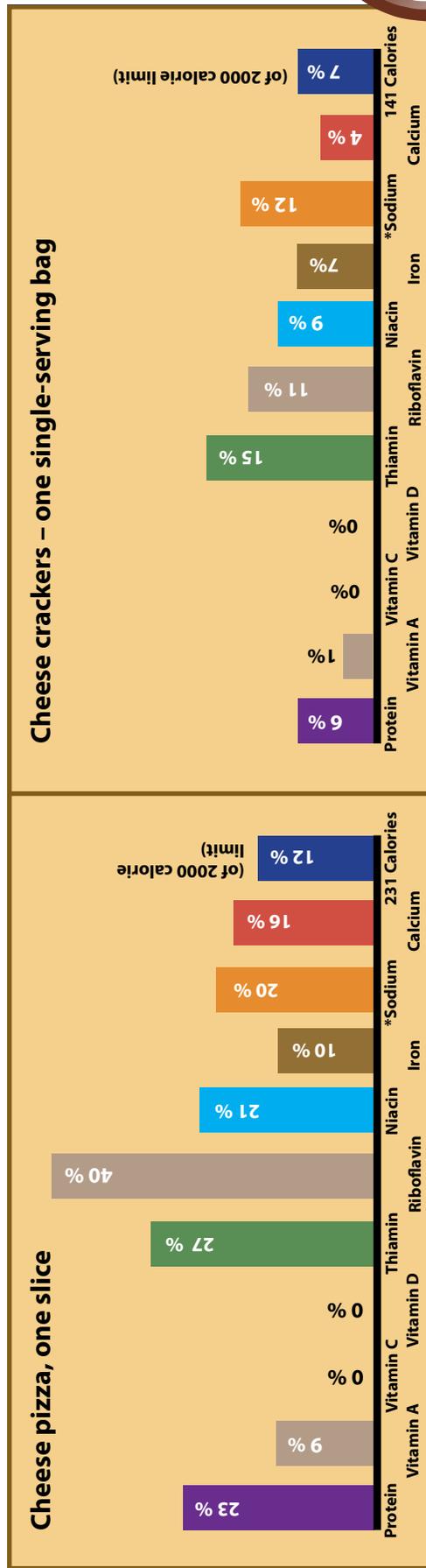
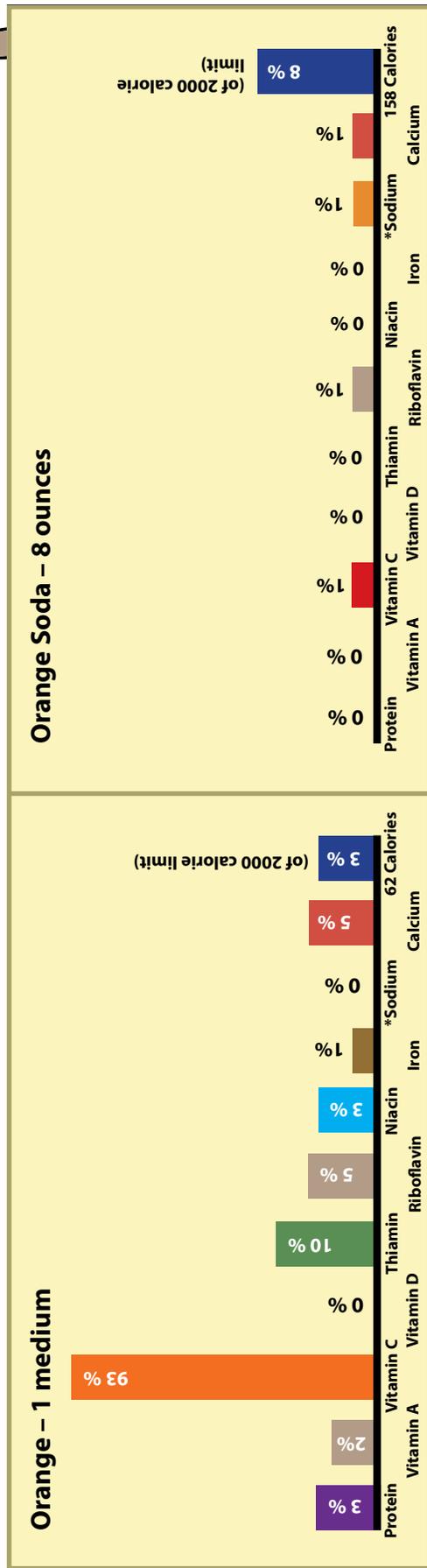
*If you are African American or have high blood pressure, diabetes, or kidney disease, reduce your sodium to 1500 milligrams per day. Percents above are for individuals whom may consume 2300 milligrams per day.

Discovery #3: Snack Quacks

Deciphering Snacks

Information Sheet 4

Percentage (%) Definition - For sodium and calories, the % information given represents the percent daily limit for someone on a 2000 calorie a day diet. For all other nutrients listed, % value = daily target. All information derived from USDA Food-a-Pedia.



*If you are African American or have high blood pressure, diabetes, or kidney disease, reduce your sodium to 1500 milligrams per day. Percents above are for individuals whom may consume 2300 milligrams per day.

Dear Family,

We're on unit 3 in the Snack Sleuths program. We learned what a snack quack is!

Snacks that are "quacks" may look and sound healthy but are not very healthy. Look out for "quacks" when you shop for snacks. Try to choose snack foods that are from the five food groups and that do not contain a lot of added fat, sugar, or salt. Read the label for more information.

Some quacks you may find are...

- **Drinks that look like they are healthy but are not.** Many juice drinks and sports drinks contain a lot of added sugar and salt. Read the ingredient list! 100% fruit juice in small portions, low-fat and fat-free plain or flavored milk, or water are the healthiest choices.
- **Granola bars or snack bars.** Choose bars made with whole grains. A whole grain such as whole oats should be listed first on the ingredient list. Skip bars that are coated or dipped in chocolate, caramel, or frosting.
- **Fruit snacks.** Many of these have more sugar than fruit in them. Read the ingredient list and look for those made with 100% fruit.



At Home You Can Make this Easy Super Snack

STRAWBERRY CHEESECAKE SNACKERS

INGREDIENTS

- 4 graham crackers
- 3-4 tablespoons low-fat ricotta cheese
- low-sugar strawberry jam

DIRECTIONS

Spread graham crackers with ricotta cheese and top with strawberry jam.

Serves 4

Another Way: Change it up. Use cinnamon graham crackers instead of plain and apple butter instead of strawberry jam.

Super Snack Tip: Low-fat or fat-free dairy foods are healthy snack choices that will help your bones and teeth grow stronger.

What we Learned: We learned that it's smart to read food labels and look closely at the ingredient list and Nutrition Facts information. Some snack foods may look or sound healthy but are not. These snacks are called "quacks".



Weekly Goal

Name: _____

Replace a "quack" with a healthy snack this week.

Instead of _____, I had a _____ for a snack.
quack healthy snack

What food group was your snack a member of? _____

Was it a combination food? _____

Please return this portion to the school by: _____



Discovery #4: Snack Decoders



Time

30-45 minutes – The Lesson
15 minutes – Snack Break

Overview

Students evaluate the snacks they consumed, identify their own snack habits related to the five food groups, and assess their decision-making powers to determine if they are smart snackers.

Objectives

Students will...

1. Assess personal snack choices in terms of contributions to the five food groups.
2. Identify eating/health areas for which they have decision-making power.
3. Determine if they have healthy habits and are smart snackers.
4. Set a goal to make a personal decision to improve one health habit from the *Healthy Habits Checklist*.
5. Optional - Make and taste a healthy snack.

Materials

- students' partially completed *My Snack Tracks* worksheets from Discovery 1
- *Snack Analysis* worksheet, one per student (p. 35)
- *Decoder Sheet*, one per student (p. 35)
- *Family Page*, one per student (p. 37)
- Optional - food for healthy snack (p.34) one per student

WORDS TO KNOW

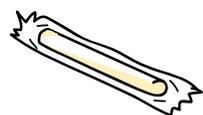
- decode
- hieroglyphic

Get Ready

1. Duplicate copies of the worksheets *Snack Analysis* and *Decoder Sheet*, one per student.
2. Review the information on MyPlate, p. 5.
3. Write the *Words to Know* (above) on the board, or make vocabulary word cards for display.

Words to Know

- **decode:** to convert a coded message into language.
- **hieroglyphic:** an ancient form of writing using symbols.





Discovery #4: Snack Decoders

Introduction

Do my snacks count?

1. Review the food groups and their functions using the *Super Snack Discoveries* mini-poster on page 19.
2. Remind student that they should try to choose healthy snacks from the five food groups most of the time and others or “quacks” only once in awhile.
3. Distribute the *Snack Analysis* worksheet and have students get out their partially completed *My Snack Tracks* worksheets.
4. Write the words **hieroglyphic** and **decode** on the board. Ask students if they know what these words mean. Explain their definitions. Point out that the symbols on their decoder sheets are not actual hieroglyphics but a pictorial code they will need to decipher.

The Lesson

Getting Started

1. Call attention to the boxes at the bottom of the worksheet.
2. Explain that each box at the bottom of the worksheet contains a pictorial code for each food group and for the **minimum** number of servings they should eat from each food group every day.
3. Explain that today they will decode the symbols on their worksheets to find out more about the number of servings they need from each group.

Decode It!

1. Hand out the Decoder worksheet. Explain that deciphering ancient writing has helped archaeologists and scientists make discoveries about people’s beliefs, habits, and customs.
2. Have students decode the symbols and write in the remaining letters that comprise the food group names.
3. Next, have students count the tally marks to determine how many servings they need from each of the food groups every day, and have them write the numbers in each box. Explain that the number of servings is a daily **minimum**

and that depending on their age, sex, and activity level, they may need more. Note: **At first glance students might think they need to eat a lot of protein or grains, but the serving sizes, ounces and ounce-equivalents, are fairly small.** (Students can find out more about what a serving is at www.choosemyplate.gov or complete the Internet activity in the Bonus Ideas section.

4. When the students are finished decoding and tallying, ask why there is not a box for “others”. Explain that “others” are extras and are not necessary for health. We should only eat snacks in the “others” group once in awhile. That is why there is no recommended number of servings a day for “others”.
5. Discuss how healthy snacks contribute to the daily number of servings we need from each of the five food groups. Explain that healthy snacks can be single foods, such as a cheese stick or a banana, or combination foods, such as a bean burrito or a PB and J sandwich.





Discovery #4: Snack Decoders



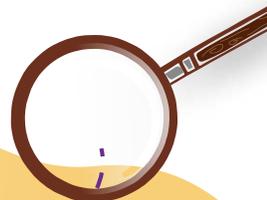
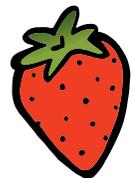
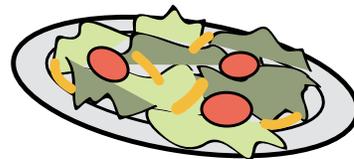
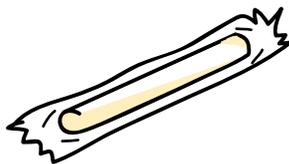
Analyze It!

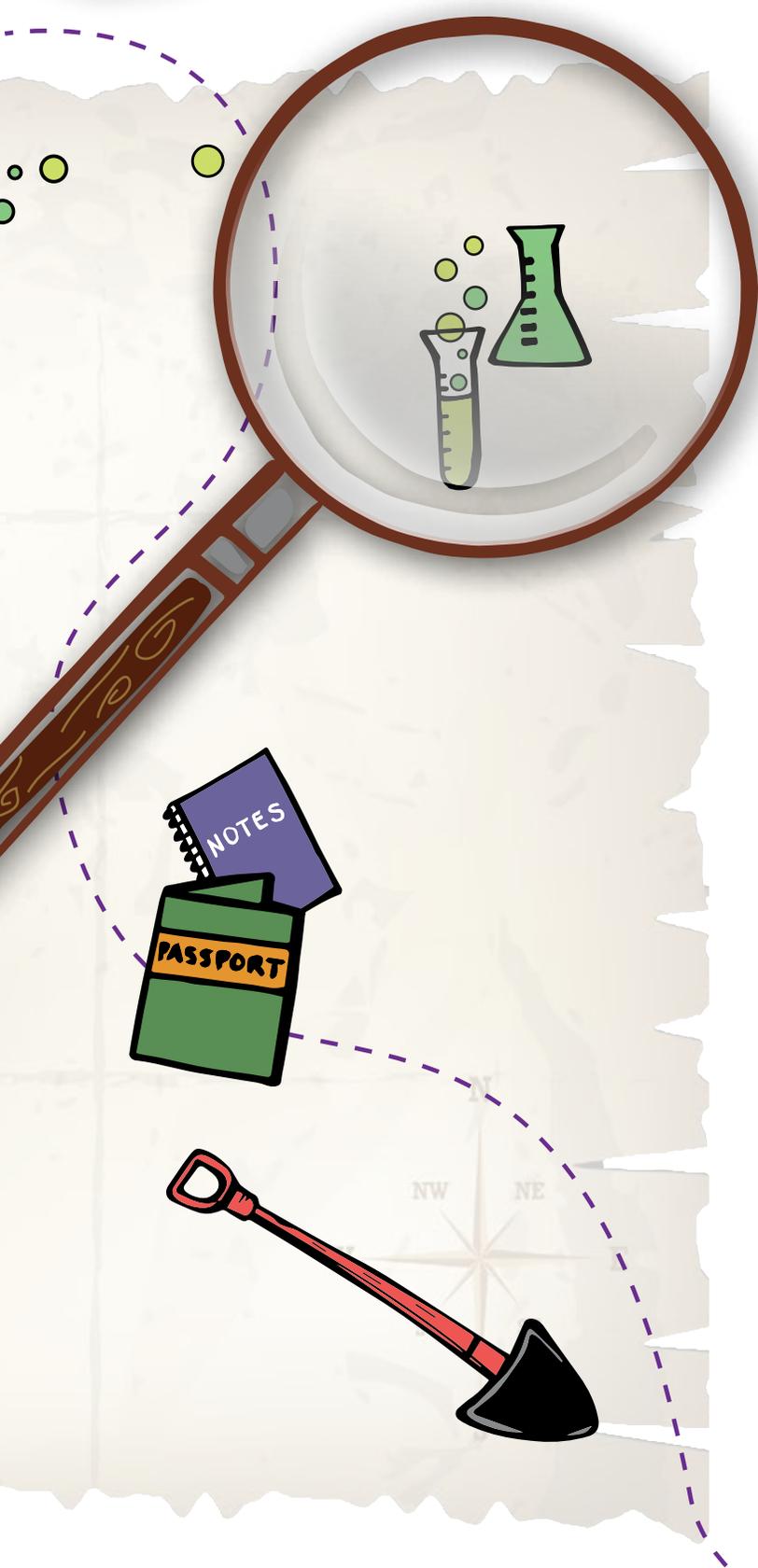
1. Have students evaluate their *My Snack Tracks* worksheets (from Discovery 2) to find out if the majority (50% or higher) of snacks they ate were part of the five food groups or a healthy combination snack, or if they counted as “others”. Discuss their findings one food group at a time.
2. Have students focus on the snacks they ate over one day and compare the minimum number of servings, found in the hieroglyphic boxes, with the numbers of servings they consumed that day for each food group. Which food groups did they need more of? How might they reach the minimum by adding healthy foods to meals and snacks?
3. Using their completed *My Snack Tracks* worksheets, have students complete the *Snack Analysis* worksheet based on their findings, facts, and conclusions.

Talk About It!

1. Ask students: ***What would happen to your bodies if you ate only “others”?***
2. Tell students: Eating the right kinds and amounts of foods from the five main MyPlate food groups will supply the nutrients you need to grow and be healthy. Snacks count toward meeting the daily number of servings you need in each group.
3. Using the completed *Snack Analysis* worksheets discuss with students...
 - What their snack sacks revealed about their snack choices (Clue Finder);
 - What kinds of snacks they would pick for a friend (My Picks) and why;
 - Whether or not they are taking care of their bones, based on snack choices;
 - If there snacks were mostly five food group snacks or “others”? Who primarily chose the snacks? (My Snacking Habits)

4. Have students tally the number of dairy group snacks they consumed in **one day** using their *My Snack Tracks* worksheet. Then, ask them to share their answers to the *Are You Taking Care of Your Bones?* section of the *Snack Analysis* worksheet. Point out that the body used calcium and Vitamin D from dairy group foods, to build strong bones and teeth. If their tallies show they do not eat dairy group foods they may not grow as tall or as strong as they could be. Talk about other times of day to eat dairy foods, e.g., drinking milk at meals.
5. Continue by discussing the remaining food groups and the results of the *Healthy Habits Checklist*.
6. Wrap up by explaining to students that they are old enough to take responsibility for their own snack habits and one of their jobs is to keep their body healthy.
7. Set a goal to make a personal choice to improve one health habit from the *Healthy Habits Checklist* on the *Snack Analysis* Worksheet.
8. Make the Super Snack (optional).





Super Snack

CARAMEL APPLE WRAPS

Serves 12

INGREDIENTS

- 1 cup fat-free Greek vanilla yogurt
- 1/3 cup creamy peanut butter
- 12 flour tortillas
- 3-4 large apples, any kind
- 1 tablespoon sugar
- 1/4 teaspoon cinnamon
- fat-free caramel sundae syrup

DIRECTIONS

Wash and dice apples. In a small bowl mix together sugar and cinnamon; sprinkle over cut apples and toss to coat. In a small bowl stir together yogurt and peanut butter until smooth. Spread yogurt mixture onto tortillas. Sprinkle apple/cinnamon mixture on top. Drizzle lightly with caramel topping. Roll and eat.

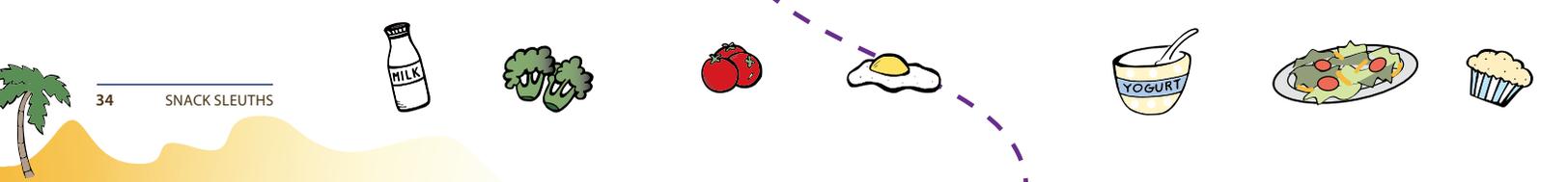
Wrap Up

Remind students that they...

- **Reviewed** the names of the five food groups and why we need to choose and eat healthy snacks.
- **Learned** the definition of the words decode and hieroglyphic and the number of servings needed per day from each of the five food groups.
- **Set a goal** to make a personal choice to improve one health habit from the *Healthy Habits Checklist*.
- **Tasted** (if completed) a healthy snack. Send home the Family page with the recipe, p. 37.

Bonus Ideas and Going Further

1. **Guess the Snack:** Using the decoder sheet, have students create, in code, one sentence about a healthy snack they like to eat or something else they like to do to stay healthy. Have students exchange their secret message with a partner and decode each other's work.





Discovery #4: Snack Decoders

Snack Analysis Worksheet

Name: _____

Directions: Use your completed My Snack Tracks worksheet to complete the Snack Analysis.

Clue Finder

If a detective, scientist, or archaeologist found your Snack Sack, what would he or she learn about your health?

1. _____
2. _____
3. _____

My Picks

Name three snacks from your *My Snack Tracks* worksheet that you would recommend to a friend that wants to eat healthier.

1. _____
2. _____
3. _____

Are You Taking Care of Your Bones?

Are there snacks you ate that will help you build strong bones? List them here.

1. _____
2. _____
3. _____

My Snacking Habits

1. Do my snacks count? Yes No

2. When do I eat most of my snacks?

3. Who chose most of my snacks?

Healthy Habits Checklist

- My snacks count. I choose foods from the five main food groups like:
 - Fresh fruit, 100% juice, canned or frozen fruit, dried fruit
 - Fresh vegetables, 100% vegetable juice, canned or frozen vegetables
 - Whole grain bread, cereal, crackers, and muffins
 - Peanut butter, meat, chicken, fish, beans, nuts
 - Milk, cheese, and yogurt
- I snack just enough to get rid of my hunger. Not too much.
- My meals count. I eat foods from the five food groups most of the time.
- I run and play every day.
- I get enough sleep every night.
- I brush my teeth twice a day.
- I keep my body clean.
- I wash my hands before eating.

How many checks do you have? _____

Are You Using YOUR Power?

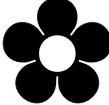
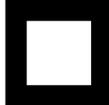
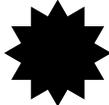
What you do today to take care of your body can keep you healthy for years.
YOU HAVE THE POWER!





Discovery #4: Snack Decoders

Decoder Sheet

	Ä / Ě		G		P
	Ā		H		QŪ
	B		I / Y		S
	C / K		J		SH
	CH		L / R		T
	D		M		TH
	Ě / Y		N		ŪŌ / W
	F / V		Ö		Ū
					Z





Dear Family,



We're on Unit 4 in the *Snack Sleuths* program. We are discovering more and more each day about healthy snacking!

Healthy snacks come from the five food groups of MyPlate. How much you need each day from each food group depends on your age, sex, and activity level.

For children in grades 3-5 they should **start** with the amounts below. These are the amounts for a 9-year-old girl:

- **Fruits:** 1 ½ cups of fruit per day. Try fruit that is fresh, frozen, or canned in its own juice.
- **Vegetables:** 2 cups per day. Try a small salad, raw veggies and dip, or cooked vegetables.
- **Grains:** 5-ounce equivalents. Choose whole grains at least half the time.
- **Proteins:** 5 ounces per day. Try lean and low fat meat, baked chicken, eggs, broiled fish, or beans.
- **Dairy:** 3 cups a day. Try milk, yogurt, or low-fat cheese.

For more information about what counts as a serving in each food group go to www.choosemyplate.gov.

At Home You Can Make this Easy Super Snack

CARAMEL APPLE WRAPS

INGREDIENTS

- 1/2 cup vanilla Greek yogurt
- 2-3 tablespoons creamy peanut butter
- 4 flour tortillas
- 1 large or 2 small apples
- 1 teaspoon sugar
- 1/8 teaspoon cinnamon
- fat-free caramel sundae syrup

DIRECTIONS

Wash and dice apples. In a small bowl mix together sugar and cinnamon; sprinkle over cut apples and toss to coat. In a small bowl stir together yogurt and peanut butter until smooth. Spread yogurt mixture onto tortillas. Sprinkle apple/cinnamon mixture on top. Drizzle lightly with caramel topping. Roll and eat.

Serves 4

Another Way: Make the spread with sunflower butter or almond butter instead of peanut butter.

Super Snack Tip: Make this snack with whole grain tortillas. They are higher in fiber.

What We Learned: We learned that it's important to eat healthy foods for both meals and snacks. Doing that will help you get the servings you need per day from each of the five food groups.



Weekly Goal

Name: _____

Improve one health habit in addition to healthy snacking.

Look at the Healthy Habits checklist. Besides eating healthy snacks, what is one healthy habit you could work on this week?

- eating healthy snacks
- washing hands before eating
- keeping clean
- being more active
- getting more sleep

Please return this portion to the school by: _____





Discovery #5: Healthy or Not? It All “Ads” Up



Time

30-45 minutes – The Lesson
15 minutes – Snack Break

Overview

Students investigate what kinds of snack foods are most often advertised to kids. They view and discuss popular TV commercials for snack foods, and they determine what kinds of advertising techniques are used to sell snacks. Finally, they develop an idea for their own healthy snack ad, using at least three of the techniques discussed in the lesson.

Objectives

Students will...

1. Analyze the appeals advertisers use to sell snacks to kids.
2. Set a goal to look for a TV ad that advertises a healthy food from one of the five food groups.
3. Optional - Make and taste a healthy snack.

Materials

- computer with ability to access the Internet and projector so the class can view the commercials
- *It All “Ads” Up!* worksheet, one per student (p. 41)
- *My Super Snack Commercial* worksheet, one per student pair (p. 42)
- *My TV Habits* worksheet, (p.43)
- *Family Page*, one per student (p. 44)
- Optional - food for healthy snack (p. 40)

WORDS TO KNOW

- commercial
- advertising
- jingle
- slogan

Get Ready

1. View after school and Saturday morning television on youth and family-focused channels to become familiar with food and snack commercials shown.
2. On the Internet, look for commercials that advertise both healthy (fruits, vegetables, milk, whole grains) and less healthy (soda, sports drinks, candy, chips, fast food) foods. Choose 3-5 commercials and bookmark them so you can easily access them on the Internet in your classroom.
3. Write the Words to Know (right) on the board or make vocabulary word cards for display.

Words to Know

commercial: something we see or hear that encourages us to purchase something.

advertising: the activity of attracting public attention to a product or business.

jingle: a catchy slogan or advertisement put to music.

slogan: a short memorable phrase used in advertising that is associated with a certain brand or product.





Discovery #5: Healthy or Not? It All “Ads” Up

Introduction

What Sells?

1. Explain to students that young people their age who live in America eat a lot of snacks. In fact, on average, over 30% of the calories children eat in America comes from snack foods. That makes selling snacks to kids a big business.
2. Ask students: What is your favorite thing to eat? Have you seen a commercial for it? What makes you want to eat it or buy it? Define **commercial**.
3. Explain that food manufacturers use advertising to get people to buy what they are selling, whether it’s healthy or not. Define **advertising**.
4. Tell the class they are going to investigate and look closely at commercials to see if they can recognize strategies advertisers use to sell food to children and adults.
5. Discuss with the class several techniques/appeals that advertisers use to get you to buy things. Write the following on the board:
 - Jingle – a catchy slogan or advertisement usually put to music
 - Slogan – a memorable phrase associated with a brand or product
 - Celebrities – popular figures (cartoon or real) such as Disney characters, movie stars, sports stars, fashion models
 - Music
 - Prizes
 - Photographs
 - Fear/inadequacy
 - Promises- how the product will make you better, more attractive, smarter, smarter, etc.
 - Good health
 - Social Status
6. Ask students to provide examples of each of these techniques from commercials they are familiar with.

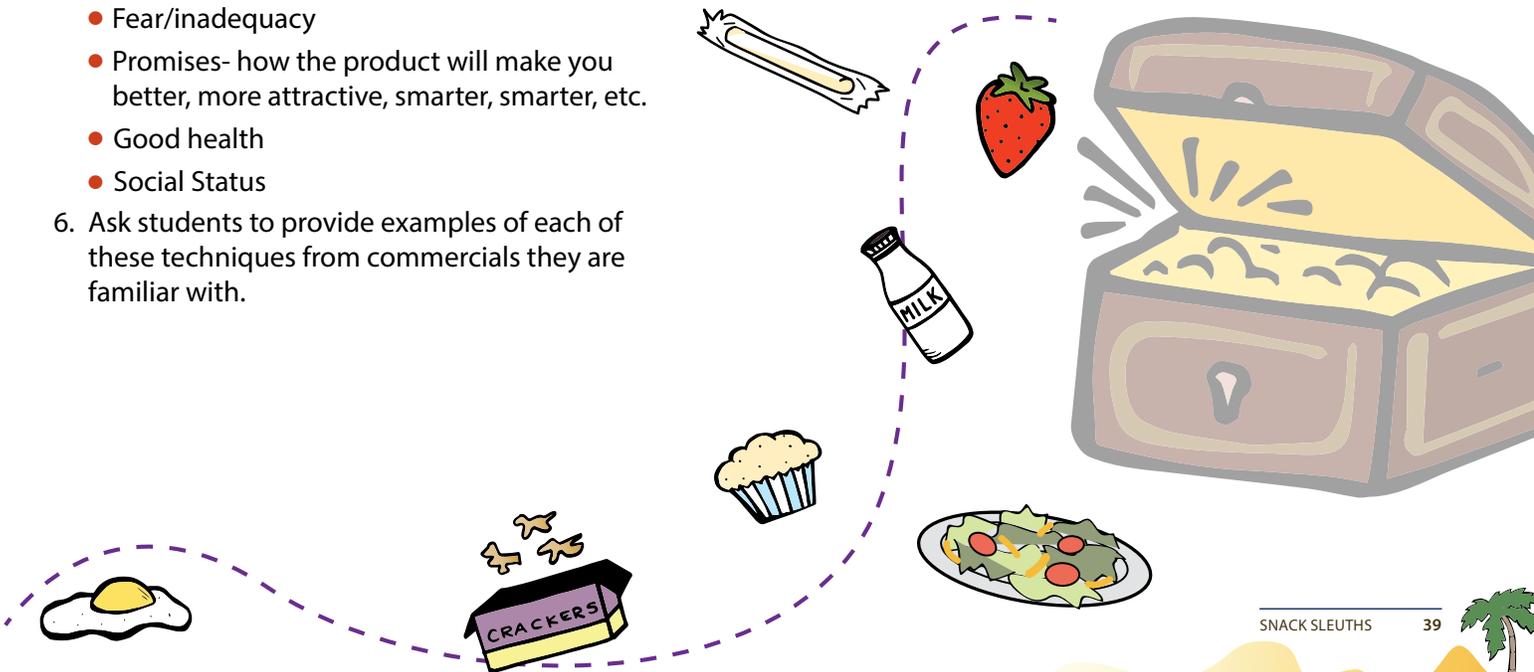
The Lesson

Talk About It!

1. Distribute the worksheet *It All “Ads” Up!*, one per student.
2. Ask students:
 - Have you ever bought something based on a commercial you saw? What made you want to buy it?
 - Do you have a favorite TV commercial? What is it and why?
 - What kinds of TV commercials do you usually see? Do you see more TV commercials for healthy snacks from the five food groups or snacks that are “others”?
 - Have you ever seen a commercial for a healthy food? What was it?

Watch it

1. Play 2-3 videos of TV commercials advertising snack foods.
2. Have students complete the *It All Ads Up!* worksheet after viewing each commercial.
3. After each commercial ask:
 - Have you seen this before?
 - Is this commercial for a five food group food or an “other” or “quack”?
 - What advertising techniques/appeals were used? (Refer to the worksheet.)





Discovery #5: Healthy or Not? It All “Ads” Up

The Lesson, continued

Create Your Own Commercial

1. Pair students and assign each student pair one of the five food groups: fruits, vegetables, grains, protein, or dairy. More than one pair will have the same food group.
2. Distribute the worksheet, *My Super Snack Commercial*, one per student pair. Allow student pairs 15 minutes to create a 30-second commercial for a snack food in their assigned food group, using at least three of the advertising techniques discussed.
3. Have pairs present their Super Snack commercials to the class.
4. Have students set a goal to pay more attention to the different kinds of advertising used for both healthy and not-so-healthy foods. Talk about how they each have the ability to make their own personal choice when it comes to choosing snacks. Remind them that when they choose healthy snacks from the five food groups, they are making a personal choice to take good care of their bodies.
5. Make the Super Snack (optional).

Super Snack

YOGURT PARFAITS

Serves 12

INGREDIENTS

48 ounces low-fat or fat-free vanilla yogurt
 4 cups cut-up fruit; fresh, frozen, or canned and drained
 2 cups cereal, any kind

DIRECTIONS

Layer in a small bowl in this order: fruit, yogurt, fruit, yogurt. Top with cereal.

Wrap Up

Remind students that they...

- **Analyzed** different techniques advertisers use to sell snacks.
- **Set a goal** to look for a TV add that advertises a healthy food from one of the five food groups.
- **Tasted (if completed):** a healthy snack. Send home the Family Page with the recipe, p. 44.

Bonus Ideas and Going Further

1. **Investigative Reporting.** Have students work in pairs to interview each other about their TV watching habits. Use the *My TV Habits* worksheet, p. 43. When finished, have the interviewers present a few of their findings (about the person they interviewed) aloud to the class.
2. **Poster Ads.** Have students work with their partners to turn their commercials into a poster using markers, crayons, colored paper, and other art supplies. Explain that they should choose a target market - e.g., other students their age, younger students, older students, teachers, parents, etc. - and that the ideas on their posters should be directly related to what might “sell” to their target market. Put up the posters wherever the “target market” is most likely to view them.
3. **Movie Star.** Have student groups videotape their commercials and share them with other classrooms.





Discovery #5: Healthy or Not? It All “Ads” Up

It All “Ads” Up! Worksheet Name _____

Directions: Watch the commercial then complete the following chart.

AD INFO	COMMERCIAL 1	COMMERCIAL 2	COMMERCIAL 3
What is the snack?			
How does the commercial get your attention?			
How does the commercial make the snack more desirable?			
What words are used to make you want to buy the snack?			
What kinds of visual techniques are used to make you want to buy the snack?			
How is sound or music used?			
Does the commercial imply in any way that the snack is a healthy snack?			
Is the snack a five food group snack, a combination snack, an “other,” or a “quack”?			
Would you buy this snack? Why or why not?			

Advertising Techniques

- Jingle – a catchy slogan or advertisement usually put to music
- Slogan – a memorable phrase associated with a brand or product
- Celebrities – popular figures (cartoon or real) such as Disney characters, movie stars, sports stars, fashion models
- Promises- how the product will make you better, more attractive, smarter, smarter, etc.
- Music
- Prizes
- Photographs
- Fear/inadequacy
- Good health
- Social status





Discovery #5: Healthy or Not? It All "Ads" Up

My Super Snack Commercial Worksheet

Team: _____

Pretend you have just been asked to advertise a healthy snack food for a TV station. Write a commercial that will persuade your audience to buy it. Explain in detail why people should buy your healthy snack food. Will it make them look good or feel good? Does it taste good? Will it keep them healthy? Will it make them better in sports or school?

Make your commercial creative and exciting! Remember to appeal to your audience.

1. **Healthy Snack Food:** _____

2. **Audience:** _____

3. **Appeals:** (circle all you will use)

- | | | | | |
|-------------|--------|-------------|-------------|---------------|
| jingle | slogan | celebrities | prizes | music |
| photographs | fear | promises | good health | social status |

4. **Now, with your partner write your script on a lined piece of paper. You both must have speaking lines. Describe your super snack and create a slogan for it.**

5. **Props: List all you will need to produce your commercial, like music, props, etc.**

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

6. **Practice! Practice! Practice! Speak clearly and slowly!**

Dear Family,

We're on unit 5 in the Snack Sleuths program. We have learned a lot about healthy snacking!

In class we talked about how TV commercials can convince you to buy foods you might not normally buy. We also learned that some commercials make food that is not very healthy seem healthy. We even wrote our own TV commercials for a healthy snack!

Some things we learned about commercials for snack foods are:

- Many times the commercials are for snacks that are not very healthy.
- Advertisers use music, color, words, and famous people to make us want to buy snack foods.
- Some commercials play on our feelings. They make us feel like we are missing out if we don't have something or that the need to buy something is urgent.

Next time you watch TV see if you can spot some of these techniques advertisers use to get your attention and to convince you to buy less-healthy snack foods.

At Home You Can Make this Easy Super Snack

YOGURT PARFAITS

INGREDIENTS

- 24 ounces low-fat or fat-free vanilla yogurt
- 2 cups cut-up fruit; fresh, frozen, or canned and drained
- 1 cup cereal, any kind

DIRECTIONS

Layer in a small bowl in this order: fruit, yogurt, fruit, yogurt. Top with cereal.

Serves 6

Another Way: Change it up. Use strawberry yogurt and blueberries for a red, white, and blue theme.

Super Snack Tip: Fruit and yogurt gives you the perfect combination of protein and carbohydrates to build muscle and give you energy.

What we Learned: We learned that healthy foods are not advertised as often as less-healthy foods on TV. The healthiest foods are from the five food groups.



Weekly Goal

Name: _____

Look for a TV commercial that advertises a healthy food from one of the five food groups.

What was the commercial for? _____ What channel was it on? _____

What appeals/techniques were used to try to get you to buy the featured food?

Did it make you want to buy it? _____

Please return this portion to the school by: _____





Discovery #6: Personal Snack Explorations



Time

60 minutes – The Lesson
(You may want to break up this activity into 2 class periods.)

Overview

Students work in groups and choose a project from the list below to practice and expand on what they learned in the Snack Sleuths program. When finished they may present their projects to the class, another class, their parents, or at an assembly.

Objectives

Students will...

1. Choose a project from the list and present their finished project.

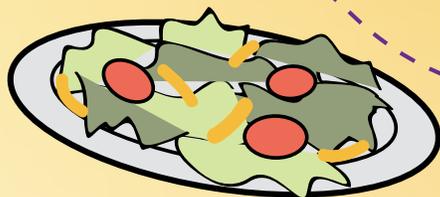
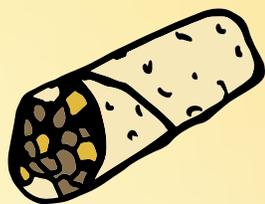
Materials

- See individual project descriptions
- *Personal Snack Explorations*, worksheet, p. 47-48, one per student team, copied back to back



Get Ready

1. Write the project titles on the board. You will need a copy of the *Personal Snack Explorations* worksheet to explain the different projects students can choose from.
2. Read through the project descriptions and gather any necessary project supplies.





Discovery #6: Personal Snack Explorations

The Lesson

1. Tell students that today they will complete one last discovery activity on snacking.
2. Have students read the project descriptions on the *Personal Snack Explorations* worksheet (p. 47-48) on their own.
3. Discuss and answer questions about the different projects.
4. Assign students to groups or pairs based on interest.
5. Allow students time to complete their chosen project. (They can complete this in one class session or more, however the educator sees fit.)
6. Once completed, have student teams present their completed projects. Allow time for questions.
7. Set up a classroom bulletin board or display area for completed Discovery 6 projects.

Wrap Up

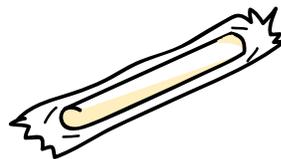
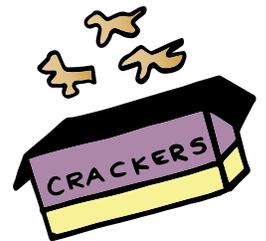
Remind students that in the Snack Sleuths program they investigated and learned more about...

- Why we need snacks;
- What MyPlate is, the names of the five food groups, and recommendations from each of the five main food groups;
- What “combination” and “other” foods are;
- The main nutrients provided by each food group and their function;
- How to distinguish nutrient-rich snacks from “others” and “quacks.”
- How advertisers use different techniques to sell snack foods;
- Whether or not they are typically smart snackers;
- Healthy snacking and other health behaviors they can make personal decisions about.

Set a goal: Discuss with students that they all have the power to make their own decisions about snacking and to use what they learned in this program to choose and eat healthy snacks most of the time.



Congratulate students!
They have now officially earned
the title of Super Snack Sleuths!



Personal Snack Explorations Worksheet

Pick one project to work on. Circle the project you picked and write your team members' names in the box.

1. Dictionary Digs

Pick three snacks from the list below. Use your dictionary to find out what language the words come from. Also use the Internet to find out how the food is made. Write up your findings and draw a picture of the foods for our classroom Snack Explorer's Bulletin Board.

- | | | |
|-------------|-----------------|------------|
| ● Bamba | ● Takoyaki | ● Chifle |
| ● Turo Rudi | ● Pan con Palta | ● Dolmades |
| ● Pepitas | ● Biltong | ● Paletas |
| ● Edamame | | |

2. Fun and Games

Have fun making up one of the following:

- Jokes or riddles about snacks. One for each of the five food groups.
- A crossword puzzle about nutritious snacks. Must have at least 15 clues.
- A Mad Lib story about snacking.

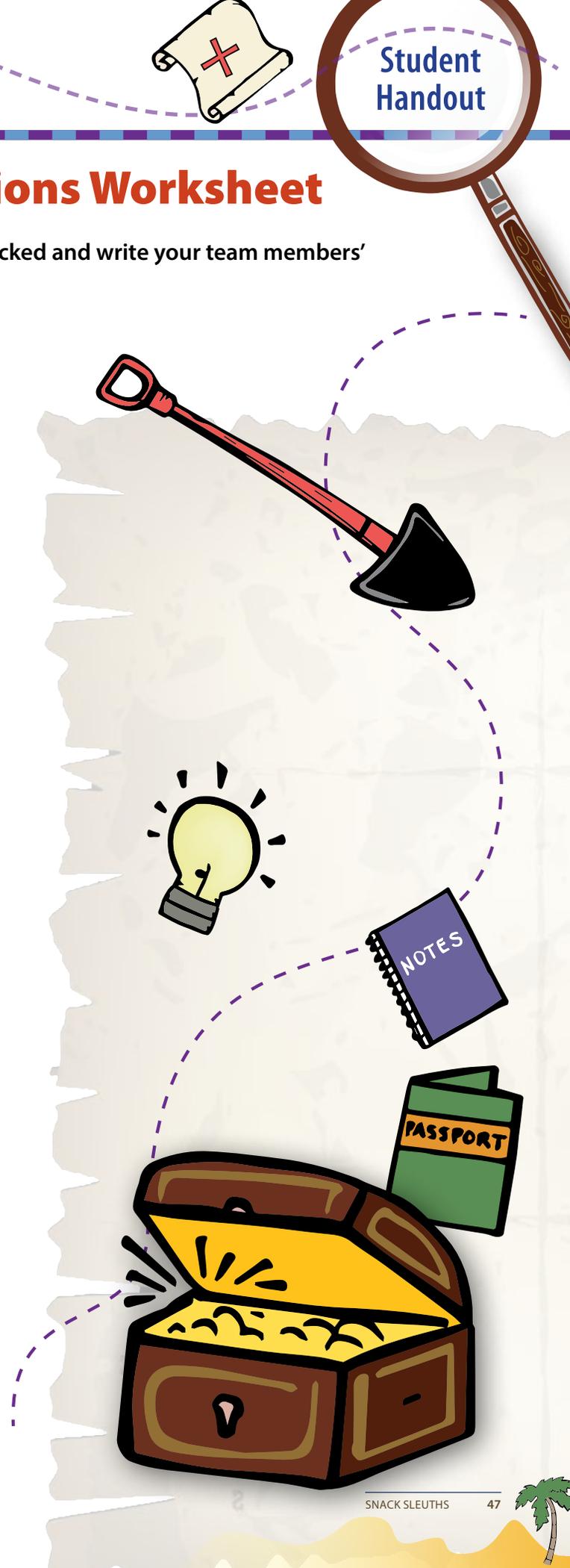
3. More Decoding.

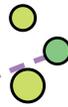
Create one long sentence that reveals something you learned in the Snack Sleuths program about healthy snacking. Use the pictographic symbols on the key to create your sentence.

4. Local Snacks

Find out if our state or region is known for a snack. What is it? Or, find out if our state or region produces a crop that is used to make snacks. Make an outline map of our state. Write up your findings on the map and post it on the classroom bulletin board.

My Snack Sleuths Team





Personal Snack Explorations Worksheet

5. Snacks of the Rich and Famous

Write a letter to a famous person, such as a rock star, a politician, or an actor. Don't forget local stars such as the city mayor, a local store owner, the principal of your school, etc. Tell them your class has been studying healthy snacks. Ask the celebrity to share his or her favorite snack recipe. Make a copy of the letter before you send it and a copy of the response if and when you receive it. Post it on the bulletin board.

6. My Opinion.

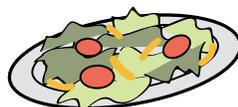
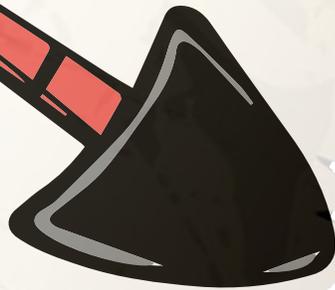
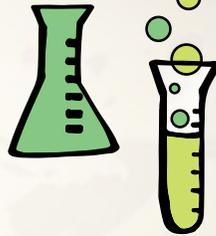
Choose a healthy snack and write an opinion piece about why your choice is the best one. Use information from internet research on the nutritional benefits of their snack choice to find the facts and details necessary. Read your opinion paragraph to the class. Optional – provide a sample of the chosen “healthy snack”.

7. Snacks Around the World Poster

Choose a county and research what kinds of food children living in that country eat as snacks. Then, create a poster commercial, using at least two of the advertising techniques you learned, for a snack food that might be eaten in the country you chose.

8. Snack Survey

Create a 3-question survey about Snacks to give to at least 10 students. Survey the students, collect the data, and compile it in chart form.





Appendix: Common Core Connections - Third Grade

Personal Explorations Into Nutritious Snacking Third Grade Common Core Standards

Lesson Title	Common Core Standards
<p>Discovery #1 Snack Artifacts</p>	<p>English Language Arts</p> <p>R.WS.03.02 use structural, syntactic, and semantic cues including letter-sound, rimes, base words, affixes, (4-5 - and syllabication) to automatically read frequently encountered words, decode unknown words, and decide meanings including multiple-meaning words.</p> <p>R.WS.03.06 acquire and apply strategies to identify unknown words or word parts; 3 - self-monitor and construct meaning by predicting and self-correcting, applying knowledge of language, sound/symbol/structural relationships, and context.</p> <p>*W.PR.03.01 set a purpose, consider audience, and replicate authors’ styles and patterns when writing a narrative or informational piece.</p> <p>L.CN.03.01 ask substantive questions of the speaker that will provide additional elaboration and details.</p> <p>S.DS.03.01 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p>
<p>Discovery #2 Investigating our Snack Habits</p>	<p>English Language Arts</p> <p>R.NT.03.03 respond to individual and multiple texts by finding evidence, discussing, illustrating, and/or writing to reflect, make connections, take a position, and/or show understanding.</p> <p>S.DS.03.01 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.IT.03.03 explain how authors use text.</p> <p>Math</p> <p>3. MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 sets.</p> <p>*3. OA.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding 2 .</p>
<p>Discovery #3 Snack Quacks!</p>	<p>English Language Arts</p> <p>R.NT.03.03 respond to individual and multiple texts by finding evidence, discussing, illustrating, and/or writing to reflect, make connections, take a position, and/or show understanding.</p> <p>S.DS.03.01 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.WS.04 explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.</p> <p>R.IT.03.04 respond to individual and multiple texts by finding evidence, discussing, illustrating, and/or writing to reflect, make connections, take a position, and/or show understanding.</p> <p>W.GN.05.04 use the writing process to produce and present a research project; use a variety of resources to gather and organize relevant information into central ideas and supporting details for a teacher-approved narrowed focus question and hypothesis.</p> <p>Math</p> <p>3. MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 sets.</p>





Appendix: Common Core Connections - Third Grade

Personal Explorations Into Nutritious Snacking Third Grade Common Core Standards (continued)

Lesson Title	Common Core Standards
<p>Discovery #4 Snack Decoders</p>	<p>English Language Arts</p> <p>R.MT.03.01 self-monitor comprehension when reading or listening to texts by 3 - automatically applying strategies used by mature readers to increase comprehension including: predicting, constructing mental images, visually representing ideas in text, questioning, rereading or listening again if uncertain about meaning, inferring, and summarizing.</p> <p>S.DS.03.01 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.WS.03.07 apply the following aspects of fluency: pauses and emphasis, punctuation cues, intonation, and automatic recognition of identified grade-level specific words and sight words while reading aloud familiar grade-level text.</p>
<p>Discovery #5 Healthy or Not? It all "Ads" Up</p>	<p>English Language Arts</p> <p>R.NT.04.03 analyze characters' thoughts and motivation through dialogue, various character roles, and functions including hero, antihero, or narrator; know first person point of view and identify conflict and resolution</p> <p>S.DS.03.01 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.MT.03.01 self-monitor comprehension when reading or listening to texts by 3 - automatically applying strategies used by mature readers to increase comprehension including: predicting, constructing mental images, visually representing ideas in text, questioning, rereading or listening again if uncertain about meaning, inferring, and summarizing.</p> <p>* W.GN.03.03 write an informational piece including a report that demonstrates the understanding of central ideas and supporting details using an effective organizational pattern (e.g., compare/contrast, cause/effect, problem/solution) with a title, heading, subheading, and a table of contents.</p>
<p>Discovery #6 Personal Snack Explorations</p>	<p>English Language Arts</p> <p>R.CM.03.01 connect personal knowledge, experiences, and understanding of the world to themes and perspectives in text through oral and written responses.</p> <p>W.GN.03.04 conduct short research projects that build knowledge about a topic.</p>

*Activities from the Bonus Idea Sections





Appendix: Common Core Connections - Fourth Grade

Personal Explorations Into Nutritious Snacking Fourth Grade Common Core Standards

Lesson Title	Common Core Standards
<p>Discovery #1 Snack Artifacts</p>	<p>English Language Arts</p> <p>S.DS.04.01 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.WS.04.07 in context, determine the meaning of words and phrases including similes, metaphors, content vocabulary, and literary terms using strategies and resources including context clues, semantic feature analysis, and a thesaurus.</p> <p>R.WS.04.01 explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.</p> <p>W.AT.04.01 be enthusiastic about writing and learning to write.</p> <p>W.PS.04.01 write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline specific tasks, purposes, and audiences.</p> <p>L.CN.04.02 listen to or view critically (3 – knowledgeably) while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.</p> <p>W.SP.04.01 in the context of writing, correctly spell frequently encountered words.</p>
<p>Discovery #2 Investigating our Snack Habits</p>	<p>English Language Arts</p> <p>S.DS.04.01 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.IT.04.03 explain how authors use text features including appendices, headings, subheadings, marginal notes, keys and legends, figures, and bibliographies to enhance the understanding of key and supporting ideas.</p> <p>R.WS.04.01 explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.</p> <p>L.CN.04.02 listen to or view critically (3 – knowledgeably) while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.</p> <p>R.WS.04.05 acquire and apply strategies to identify unknown words or word parts; self-monitor and construct meaning by engaging actively in reading a variety of genre, self-correcting, and using a thesaurus.</p> <p>Math</p> <p>4. OA.3 solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p> <p>D.RE.04.03 solve problems using data presented in tables and bar graphs, e.g., compare data represented in two bar graphs and read bar graphs showing two data sets.</p> <p>3. MD.3 draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 sets.</p>





Appendix: Common Core Connections - Fourth Grade

Personal Explorations Into Nutritious Snacking Fourth Grade Common Core Standards (continued)

Lesson Title	Common Core Standards
Discovery #3 Snack Quacks	<p>English Language Arts</p> <p>S.DS.04.01 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.WS.04.01 explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.</p> <p>W.AT.04.01 be enthusiastic about writing and learning to write.</p> <p>W.PS.04.01 write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline specific tasks, purposes, and audiences.</p> <p>L.CN.04.02 listen to or view critically (3 – knowledgeably) while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.</p> <p>R.WS.04.05 acquire and apply strategies to identify unknown words or word parts; self-monitor and construct meaning by engaging actively in reading a variety of genre, self-correcting, and using a thesaurus.</p> <p>Math</p> <p>D.RE.04.03 solve problems using data presented in tables and bar graphs, e.g., compare data represented in two bar graphs and read bar graphs showing two data sets.</p> <p>3. MD.3 draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 sets.</p>
Discovery #4 Snack Decoders	<p>English Language Arts</p> <p>S.DS.04.01 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.WS.04.01 explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.</p> <p>L.CN.04.02 listen to or view critically (3 – knowledgeably) while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.</p> <p>R.WS.04.05 acquire and apply strategies to identify unknown words or word parts; self-monitor and construct meaning by engaging actively in reading a variety of genre, self-correcting, and using a thesaurus.</p>





Personal Explorations Into Nutritious Snacking Fourth Grade Common Core Standards (continued)

Lesson Title	Common Core Standards
Discovery #5 Healthy or Not? It all "Ads" Up	English Language Arts R.MT.04.01 self-monitor comprehension when reading or listening to texts by automatically applying and discussing the strategies ... and engaging in interpretive discussions. S.DS.04.01 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols. R.WS.04.01 explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context. W.AT.04.01 be enthusiastic about writing and learning to write. W.PS.04.01 write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of disciplinespecific tasks, purposes, and audiences. L.CN.04.02 listen to or view critically (3 – knowledgeably) while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.
Discovery #6 Personal Snack Explorations	English Language Arts W.GN.04.04 use the writing process to produce and present a research project: using a teacher-approved topic; find and narrow research questions; use a variety of resources; take notes; and organize relevant information to draw conclusions. L.CN.04.04 recognize and analyze the various roles of the communication process (e.g., to persuade, critically analyze, flatter, explain, dare) in focusing attention on events and in shaping opinions.

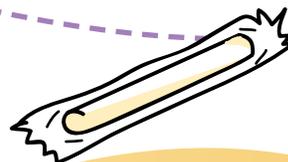




Appendix: Common Core Connections - Fifth Grade

Personal Explorations Into Nutritious Snacking Fifth Grade Common Core Standards

Lesson Title	Common Core Standards
<p>Discovery #1 Snack Artifacts</p>	<p>English Language Arts</p> <p>S.DS.05.03 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.WS.05.07 in context, determine the meaning of words and phrases including similes, metaphors, content vocabulary, and literary terms using strategies and resources including context clues, semantic feature analysis, and a thesaurus.</p> <p>R.WS.05.01 explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.</p> <p>W.AT.05.01 be enthusiastic about writing and learning to write.</p> <p>W.PS.04.01 write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline specific tasks, purposes, and audiences.</p> <p>L.CN.05.02 listen to or view critically (3 – knowledgeably) while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.</p> <p>W.SP.05.01 in the context of writing, correctly spell frequently encountered words.</p>
<p>Discovery #2 Investigating our Snack Habits</p>	<p>English Language Arts</p> <p>S.DS.05.03 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.IT.05.03 explain how authors use text features including appendices, headings, subheadings, marginal notes, keys and legends, figures, and bibliographies to enhance the understanding of key and supporting ideas.</p> <p>R.WS.05.01 explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.</p> <p>L.CN.05.02 listen to or view critically (3 – knowledgeably) while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.</p> <p>Math</p> <p>5.NBT.7 add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p> <p>D.AN.05.03 given a set of data, find and interpret the mean (using the concept of fair share) and mode.</p> <p>D.AN.05.04 solve multi-step problems involving means.</p>





Appendix: Common Core Connections - Fifth Grade

Personal Explorations Into Nutritious Snacking Fifth Grade Common Core Standards

Lesson Title	Common Core Standards
<p>Discovery #3 Snack Quacks</p>	<p>English Language Arts</p> <p>S.DS.05.03 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.WS.05.01 explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.</p> <p>W.AT.05.01 be enthusiastic about writing and learning to write.</p> <p>W.PS.05.01 write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline specific tasks, purposes, and audiences.</p> <p>L.CN.05.02 listen to or view critically (3 – knowledgeably) while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.</p> <p>Math</p> <p>5. NF.7 apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p>
<p>Discovery #4 Snack Decoders</p>	<p>English Language Arts</p> <p>S.DS.05.03 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.WS.05.01 explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.</p> <p>L.CN.05.02 listen to or view critically (3 – knowledgeably) while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.</p>
<p>Discovery #5 Healthy or Not? It all “Ads” Up</p>	<p>English Language Arts</p> <p>R.MT.05.01 self-monitor comprehension when reading or listening to texts by automatically applying and discussing the strategies ... and engaging in interpretive discussions.</p> <p>S.DS.05.03 engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.</p> <p>R.WS.05.01 explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.</p> <p>W.AT.05.01 be enthusiastic about writing and learning to write.</p> <p>W.PS.05.01 write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline specific tasks, purposes, and audiences.</p> <p>L.CN.05.02 listen to or view critically (3 – knowledgeably) while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.</p>
<p>Discovery #6 Personal Snack Explorations</p>	<p>English Language Arts</p> <p>W.GN.05.04 use the writing process to produce and present a research project: use a variety of resources to gather and organize relevant information into central ideas and supporting details for a teacher-approved narrowed focus question and hypothesis.</p> <p>L.CN.05.04 recognize and analyze the various roles of the communication process (e.g., to persuade, critically analyze, entertaining versus informative, different interpretations or perspectives of an action or event) in focusing attention on events and shaping opinions.</p>





