

English/language arts  
Lessons  
5-8



# Investigate! Beware of Quick Fixes & False Advertisement

## Standards References

### LANGUAGE ARTS GLEs

Grade 5: 40

Grade 6: 39

Grade 7: 34

Grade 8: 34

### HEALTH Benchmarks

4-M-3

4-M-5

## Materials

1. Advertisements
2. Advertisement Evaluation Checklist
3. Pencils

### Activity Overview

Participants will evaluate selected health product advertisements using a checklist.

### Key Concepts

- False claims of miracle gadgets and concoctions have plagued mankind for centuries.
- Health frauds are costing Americans billions of dollars.
- Consumers must guard themselves from persons who prey on those who have false hope, are desperate, or are simply looking for a quick fix to a difficult problem.
- Several advertisement and fad diet claims may be evidence that the product is not believable and should be avoided.
- Remember, if the claim sounds to be too good to be true, it probably is.
- Smart consumers evaluate and determine bias and credibility of various media presentations.

### Procedure

Preparation: Print and post the Key Concepts Card, Lab Instructions Card, and advertisements at the Explore Station. Print one checklist for each family.

1. Skim the product advertisements.
2. Choose one advertisement that you wish to evaluate.
3. Read each claim statement in the guide and check “Yes” if the advertisement makes the claim about the product. Check “No” if there is no such claim.
4. If any answers are “yes,” you can judge the product as “too good to be true.”
5. If all of the responses are “No”, you can judge the product as “Believable.”
6. Read and discuss the Key Concepts!
7. Which advertisement claim in the weight reduction products is most likely to send up red flags in your judgment?
8. Why do so many consumers buy questionable health products?
9. Be sure to write what you have learned and stamp your *Passport to Good Health!*

### Closure/Evaluation

After completing the activity, families read the information found under “Key Concepts” and discuss the importance of evaluating a variety of advertisements to avoid buying false hope.

 Investigate! Beware of Quick Fixes  
& False Advertisement

## LAB INSTRUCTIONS

In this activity, you will evaluate selected health product advertisements using a checklist.

1. Skim the product advertisements.
2. Choose one advertisement that you wish to evaluate.
3. Read each claim statement on the checklist and answer “Yes” if the advertisement makes that claim about the product. Check “No” if there is no such claim.
4. If there are any “Yes” responses, you can judge the product as “Too good to be true.”
5. If all of the responses are “No,” you can judge the product as “Believable.”

### **Read and discuss your Key Concepts!**

What did you find out about evaluating advertisements of health products?

Which claim in the advertisements is most likely to send up a red flag? Why do so many consumers buy questionable health products and follow fad diets?

Be sure to record what you have learned and stamp your  
*Passport to Good Health!*



# Investigate! Beware of Quick Fixes & False Advertisement

## Advertisement Evaluation

When evaluating an advertisement or information from a website, ask yourself these questions. If any of your answers to these statements is “yes,” then beware.

Statement	Yes	No
1. Uses a sensational writing style, such as “quick and effective,” “scientific breakthrough,” or “miraculous cure”		
2. Offers an exclusive product or ancient remedy that must be purchased		
3. Allows you to eat all you want of high-calorie foods and still lose weight		
4. Guarantees losing more than one to two pounds per week		
5. Provides “expert” endorsements and testimonials instead of a recognized authority		
6. Offers are “risk-free”		
7. Offers a money-back guarantee		
8. Encourages taking megadoses of a nutrient		
9. Excludes a food group		

If any answer to the checklist above is ‘yes,’ then the ad or information may be too good to be true. Seek a second opinion or an alternative source.



# The Omega Plan

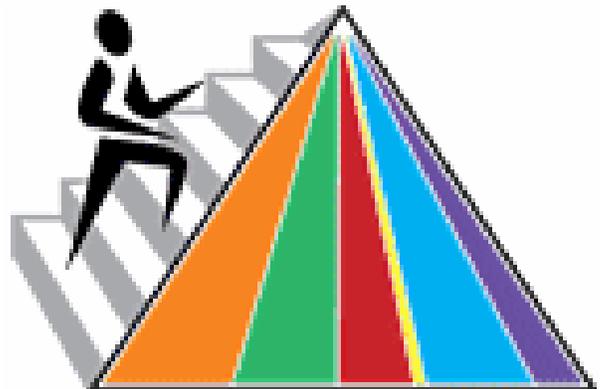
**Lose all the weight you want safely!**

**Free trial . . . . .**

**Safe . . . . .**

**Choose the foods & amounts that  
are right for you . . . . .**

**Add years to  
your life!**



**Contact  
MyPyramid.gov**

**Combined with physical activity, this may be the last  
weight control plan you ever have to follow. Try The  
Omega Plan today!**

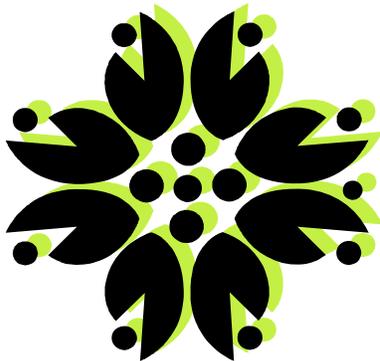
# Dr. Jules' FD2300

## New Discovery

Amazing Weight Loss  
Without Medication

Ancient Herbal  
Bosque Nuba  
found in the  
Tropical Rain  
Forest

Dr. Jules' FD2300



Before



After\*

Lose 10 pounds in a  
week!

Don't give up your favorite  
foods!

No strenuous exercise!

Money-back guarantee!

Only \$49.99

Don't worry about expensive health club fees. Just add a few capsules of Dr. Jules' exclusive herbal potion to your tea three times a day. There is no after taste or harmful side effects with this natural potion. You will notice results almost immediately. Call toll-free anytime 1-800-555-5555

Here are a few testimonials of people who have tried Dr. Jules' FD2300:

"I lost 8 pounds in 7 days and feel great," writes Dale Rogers.

"I lost 27 pounds in a month and never felt hungry," claims Rita Turner.

"I am buying clothing 3 sizes smaller and have tons of energy," stated Howard Murry.

\*Results not typical

## Investigate! Beware of Quick Fixes & False Advertisement

False claims of miracle gadgets and concoctions have plagued mankind for centuries. Even though federal agencies, such as the Federal Trade Commission and the Food & Drug Administration, have sought ways to combat deceptive advertisement, promoters of questionable products are still at work. There is even less control over the Internet. Currently, health frauds are costing Americans billions of dollars.

Consumers must guard themselves from persons who prey on those who have false hope, are desperate, or are simply looking for a quick fix to a difficult problem. Beware of a product if its advertisement makes false claims such as these listed below:

1. A quick and effective cure-all or diagnostic tool for a wide variety of ailments
2. A scientific breakthrough, a miraculous cure, an exclusive product or ancient remedy
3. Miraculous weight loss without effort
4. Eat all you want of high-calorie foods and still lose weight.
5. Lose 30 pounds in 30 days (Losing weight at the rate of a pound or two a week is the most effective way to take it off and keep it off.)
6. Omit a food group or requires the use of megadoses of a nutrient
7. Provides “expert” endorsements and testimonials (The best sources for advice include hospitals, universities, and non-profit organizations such as the American Heart Association.)

Above all, remember if the claim sounds to be too good to be true, it probably is. The best advice is to eat healthfully and exercise every day. Healthy eating and dieting are not the same. Weight reduction diets should be supervised by a reputable health care provider.

# Investigate! Breakfast

## Standards References

### LANGUAGE ARTS GLEs

Grade 5: 35

Grade 6: 34

Grade 7: 31

Grade 8: 31

### HEALTH Benchmarks

1-M-2

3-M-1

6-M-1

## Materials

1. Ingredients and measuring utensils for smoothie listed on the worksheet
2. Blender
3. Measuring tools
4. Paper cups (3 or 5 oz) – one cup per person
5. Worksheet
6. Answer Key
7. Trash can or garbage bag

## Activity Overview

Participants will watch a demonstration of a quick and easy way to make a breakfast smoothie. As the smoothie is being made, they will write the missing ingredients and steps to making the smoothie on the worksheet provided. Then they will be given a sample of the smoothie and asked to rate its taste.

## Key Concepts

- Children who eat breakfast are more likely to have better concentration, problem-solving skills and eye-hand coordination.
- There is overwhelming evidence that a healthy breakfast is the key to a productive day.
- A good breakfast is one that consists of a variety of foods including several food groups.
- Cooking provides students with opportunities to follow directions as well as learn about healthful eating.

## Procedure

Preparation: Print the Key Concepts Card and the Lab Instructions Card on heavy cardstock and place at the Explore Station along with the materials. Make a copy of the worksheet for each family. Set up the station near an electrical outlet. Pre-measure the ingredients to speed up the procedures at this station.

1. Look over the recipe on the worksheet provided. Note information that is missing.
2. Watch the demonstration carefully.
3. Listen for amounts of ingredients, ingredients, and steps in making the smoothie.
4. Fill in the blanks on the worksheet.
5. Taste the sample.
6. Rate the smoothie by responding to the statement at the bottom of your worksheet.
7. Which food groups are missing from this breakfast smoothie? Name some breakfast foods from those food groups.
8. Read and discuss the Key Concepts!
9. What are the benefits of eating breakfast?
10. What advice would you give to someone who skips breakfast?
11. Be sure to write what you have learned and stamp your *Passport to Good Health!*

## Closure/Evaluation

After completing the activity, families read the information found under “Key Concepts” and discuss the changes in dietary habits that they will make in order to enjoy a healthier future.

# Investigate! Breakfast

## LAB INSTRUCTIONS

In this activity, you will watch a demonstration of a quick and easy way to make a breakfast smoothie. As the smoothie is being made, you will write the missing ingredients and steps to making the smoothie on the worksheet provided. Then you will be given a sample of the smoothie and asked to rate its taste.

1. What are some benefits of eating breakfast?
2. First, look over the recipe on the worksheet provided. Note any information that is missing.
3. Watch the demonstration carefully.
4. Listen for ingredients, amounts of ingredients, and steps for making the smoothie.
5. Fill in the blanks on the worksheet.
6. Taste the sample.
7. Rate the smoothie by responding to the statement at the bottom of your worksheet.
8. Which food groups are missing from this breakfast smoothie? Name some breakfast foods from those food groups.

### **Read and discuss your Key Concepts!**

What are the benefits of eating breakfast?

What advice would you give to someone who skips breakfast?

Why is it important to read all of the directions to a recipe before cooking?

Be sure to record what you have learned and stamp your

*Passport to Good Health!*

# Investigate! Breakfast

## Peachy Strawberry Smoothie

### 1. Measure each of the ingredients and place in blender:

- 1 ½ cups milk
- 1 – 6 ounce container vanilla low fat yogurt
- 3 Tbsp. Granulated sugar or honey
- 1 cup frozen sliced peaches
- 1 cup frozen strawberries

### 2. Cover & Blend on high speed until smooth.

Makes 8 ½ -cup servings

### Smoothie Satisfaction Rating

**Directions:** Place a check under the rating that you give the smoothie.

Not Satisfying	No Opinion	Satisfying

Which food groups are not included in this breakfast smoothie? Name some breakfast foods from these food groups. The grain, vegetable and the meat and beans groups are not represented. French toast and cheese toast contain both the grain and meat groups. Grits are in the grain group. Eggs are in the meat group. A vegetable omelet provides meat and vegetables.

# Investigate! Breakfast

## Peachy Strawberry Smoothie

### 1. Measure each of the ingredients and place in blender:

1 ½ cups milk

1 – 6 ounce container vanilla \_\_\_\_\_ yogurt

3 \_\_\_\_\_. Granulated sugar or honey

1 cup \_\_\_\_\_ sliced peaches

1 cup frozen \_\_\_\_\_.

### 2. Cover & Blend on \_\_\_\_\_ speed until smooth.

Makes \_\_\_\_\_ 1/2-cup servings

### Smoothie Satisfaction Rating

**Directions:** Place a check under the rating that you give the smoothie.

Not Satisfying	No Opinion	Satisfying

Which food groups are not included in this breakfast smoothie? What suggestions would you make to improve this recipe?

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## Investigate! Breakfast

Breakfast is especially important for children and adolescents. According to the American Dietetic Association, children who eat breakfast are more likely to have better concentration, problem-solving skills and eye-hand coordination. They may also be more alert, creative, and less likely to miss days of school.

Greater physical stamina, better concentration at school or work, a more efficient metabolism—the evidence is overwhelming that a healthy breakfast is the key to a productive day. Yet it's the meal most likely to be skipped by children, teenagers, and adults alike.

Eating a nutritious breakfast also helps to minimize the craving for fattening snacks during the day. First, the body needs to have an appropriate blood sugar level in order to provide enough energy for daily activities. The body has basically gone through a long fast and needs food in order to replenish the body with glucose. Furthermore, people who eat a healthy breakfast tend to be thinner, possibly because they are not as likely to eat between meals, overeat at lunch, or snack late at night.

A good breakfast is one that consists of a variety of foods including cereal or grain, fruit, and a dairy product. Eggs or other proteins are fine. A good example of a healthy breakfast might be something like a boiled egg, an orange, and a bowl of whole grain cereal with skimmed milk. No matter what foods are chosen, eating breakfast gives the body the energy it needs for the day.

Cooking provides opportunities to follow directions as well as learn about healthful eating. Be good to yourself and eat breakfast, as it will make you feel much better throughout the day. Select healthy options that fit your taste and lifestyle.

# Investigate! Create a Healthier Recipe

## Standards References

### LANGUAGE ARTS GLEs

Grade 5: 8, 13

Grade 6: 7, 12

Grade 7: 10, 5

Grade 8: 10, 5

### HEALTH Benchmarks

1-M-2

3-M-1

## Materials

1. Tips for Modifying Recipes
2. Satisfaction Chart
3. Recipes for Muffins
4. Answer Key
5. Pencils or pens
6. Sticky notes
7. Muffins made with ingredients from the revised recipe

## Activity Overview

Participants will listen to a short presentation and review a tip sheet on changing favorite recipes. Then they will learn to modify a muffin recipe. Comparing the original and modified recipes, participants will discover seven changes in ingredients that make the recipe more healthful. Finally, they will taste and evaluate the muffin.

## Key Concepts

- Reduce sugar, sodium, fat in recipes.
- Use whole grains, fruit and vegetables to increase the amount of fiber and nutrients needed for health.
- Retain the sweet taste in a recipe by adding spices and flavorings.
- Substitute half of the shortening called for in baked foods with the same amount of applesauce or mashed banana.
- The daily intake of salt should be limited to 2300 mg.
- Braise, broil, bake or grill meats and vegetables to cut down on fat.
- This language arts activity requires participants to listen to a presentation, compare recipes, and evaluate a product.

## Procedure

Preparation: Post *Tips for Modifying a Recipe*, *Satisfaction Chart*, *Key Concepts*, *Lab Instructions*, and *Recipe Answer Key* at the Explore Station along with the materials. Copy the muffin recipe for each family. Bake the muffins using the revised recipe. Bake in mini-muffin tins to yield 48 muffins.

1. After listening to the presentation, taste the muffin made with the revised recipe and place a sticky note on the "Satisfaction Chart" to rate it as delicious, fair, or unacceptable.
2. Compare the two muffin recipes provided and circle the items that were changed in the revised muffin recipe to create a healthier product.
3. What are seven ingredients that needed to be changed in order to make the product healthier?
4. What is your judgment about the resulting product? Did you give it a high rate of satisfaction? Will you be likely to try reducing these ingredients in some of your favorite recipes?
5. Read and discuss the Key Concepts!
6. Be sure to write what you have learned about changing recipes for good health and stamp your *Passport to Good Health*!

## Closure/Evaluation

After completing the activity, families read the information found under "Key Concepts" and discuss how family recipes may be altered for good health.

# Investigate! Create a Healthier Recipe

## LAB INSTRUCTIONS

In this activity, you will listen to a brief presentation of a tip sheet on how to change recipes that are generally too high in sugar, salt, or fat. Then you will taste and rate a muffin that was prepared with an altered recipe with reduced amounts of sugar, sodium, and fat. Finally you will compare the two muffin recipes using the information you learned in the presentation.

1. After listening to the presentation, taste the muffin and place a sticky note on the “Satisfaction Chart” to rate it as delicious, fair, or unacceptable.
2. Compare the two muffin recipes provided and circle the items that were changed in the revised muffin recipe to create a healthier product.
3. Discuss with your family the items you found. Did you find a total of seven items that were changed? How did these changes make the muffin a healthier product?
4. What are some recipes your family enjoys that could be made healthier without sacrificing the flavor?

### **Read and discuss your Key Concepts!**

What are three options for making a recipe healthier? What does your school food service manager do to make menus and recipes healthier?

Be sure to record what you have learned and stamp your  
*Passport to Good Health!*

# Investigate! Create a Healthier Recipe

Healthy recipes have less fat, added sugar, and salt and are higher in fiber. You can **reduce**, **substitute**, or **omit** the amount of ingredients. Here are a few tips.

## Fat

- **Reduce** – It is possible to use less fat, particularly less saturated fat and those containing cholesterol, without sacrificing flavor or quality in the food we cook. With the exception of baking, most recipes do not suffer from reduction in fat. Use a thin glaze instead of a thick icing and lightly drizzle on the product.
- **Substitute** – Egg yolks contain lots of saturated fat and cholesterol. Use egg whites instead of yolks when possible. Use vegetable oils instead of solid shortening, margarine, or butter. Moisten and sweeten baked goods with fruit juice or applesauce and reduce the fat. If a recipe calls for  $\frac{1}{2}$  cup of fat, use  $\frac{1}{4}$  cup of fat and  $\frac{1}{4}$  cup of applesauce to keep the product moist. Use fat-free milk instead of whole milk.
- **Omit** – Omit brushing the tops of baked goods with butter or adding a streusel-type topping. Omit icing.

## Sugar

- **Reduce** – Reduce the amount of sugar in recipes up to one-half.
- **Substitute** – Add spices such as cinnamon or vanilla extract to keep the product flavorful. Use fruits packed in water or unsweetened juice rather than syrup.
- **Omit** - Omit frosting to baked items.

## Salt

- **Reduce** – Most foods, with the exception of baked items using yeast, can be prepared with half of the amount of salt stated in the recipe.
- **Substitute** – When preparing savory food items, use herbs and spices. Some ingredients, such as in instant or canned soups, are high in sodium. Replace these ingredients with products lower in sodium.
- **Omit** – In many recipes, salt can be omitted completely.

**Fiber** - Whole wheat products contain more fiber than enriched. Whole wheat adds fiber but does not reduce sugar, fat, or salt.

# Investigate! Create a Healthier Recipe

## Recipe Satisfaction Chart

Delicious	Fair	Unacceptable

# Investigate! Create a Healthier Recipe

## Applesauce Muffins

Circle the seven changes in the revised recipe below.

Original	Revised
1 1/4 cup all purpose flour	3/4 cup all purpose flour
	1/2 cup whole wheat flour
2 teaspoons baking powder	2 teaspoons baking powder
1 teaspoons cinnamon	2 teaspoons cinnamon
3/4 teaspoon salt	1/2 teaspoon salt
3/4 cup brown sugar (packed)	1/2 cup brown sugar (packed)
1/4 cup whole milk	1/4 cup skim milk
2/3 cup unsweetened applesauce	2/3 cup unsweetened applesauce
1/3 cup light or dark corn syrup	1/3 cup light or dark corn syrup
1 egg	2 egg whites
2 Tbsp butter	2 Tbsp vegetable oil
1/2 cup raisins	1/2 cup raisins
1/4 cup Bran flake cereal	1/4 cup Bran flake cereal
1/2 tsp Cinnamon	1/2 tsp Cinnamon
1 Tbsp Sugar	1 Tbsp Sugar

Using revised list of ingredients, follow these directions:

1. Spray 2 1/2" muffin cups with cooking spray.
2. Combine flours, baking powder, salt and cinnamon.
3. In another bowl, thoroughly mix brown sugar and milk. Add applesauce, corn syrup and egg whites; whisk until thoroughly blended.
4. Gradually add liquid to flour mixture, blending until smooth. Do not overmix. Stir in raisins. Portion into prepared muffin cups. Sprinkle with bran flakes and cinnamon sugar.
5. Bake at 400°F for 20 minutes or until browned and firm to touch. Cool in pan five minutes.

Yields 12 muffins

Recipe Notes

Can serve as muffins or bake as a cake in a 9 x 13" oblong pan. Add diced apples for more texture.

Recipe Source: Culinary Institute of America

USDA Healthy Cuisine for Kids

 **Investigate! Create a Healthier Recipe**  
Applesauce Muffins  
**Answer Key**

The seven items, listed in bold, reduced the fat, sugar & sodium of the product.

Original	Revised
1 1/4 cup all purpose flour	<b>3/4 cup all purpose flour</b>
2 teaspoons baking powder	1/2 cup whole wheat flour
1 teaspoons cinnamon	2 teaspoons baking powder
3/4 teaspoon salt	<b>2 teaspoons cinnamon</b>
3/4 cup brown sugar (packed)	1/2 teaspoon salt
1/4 cup whole milk	<b>1/2 cup brown sugar (packed)</b>
2/3 cup unsweetened applesauce	1/4 cup skim milk
1/3 cup light or dark corn syrup	2/3 cup unsweetened applesauce
1 egg	1/3 cup light or dark corn syrup
2 Tbsp butter	<b>2 egg whites</b>
1/2 cup raisins	<b>2 Tbsp vegetable oil</b>
1/4 cup Bran flake cereal	1/2 cup raisins
1/2 tsp Cinnamon	1/4 cup Bran flake cereal
1 Tbsp Sugar	1/2 tsp Cinnamon
	1 Tbsp Sugar

Using revised list of ingredients, follow these directions:

1. Spray 2 1/2" muffin cups with cooking spray.
2. Combine flours, baking powder, salt and cinnamon.
3. In another bowl, thoroughly mix brown sugar and milk. Add applesauce, corn syrup and egg whites; whisk until thoroughly blended.
4. Gradually add liquid to flour mixture, blending until smooth. Do not overmix. Stir in raisins. Portion into prepared muffin cups. Sprinkle with bran flakes and cinnamon sugar.
5. Bake at 400°F for 20 minutes or until browned and firm to touch. Cool in pan five minutes.

Yields 12 muffins

Recipe Notes

Can serve as muffins or bake as a cake in a 9 x 13" oblong pan. Add diced apples for more texture.

Recipe Source: Culinary Institute of America

USDA Healthy Cuisine for Kids

## Investigate! Create a Healthier Recipe

Healthy food choices begin at home. Making foods from scratch, or nearly from scratch, allows you to control the amount and kind of fat that you eat. You also can control how much sugar and salt is in recipes. Additionally, these foods can be higher in fiber. Think of how you could modify some of your favorite recipes.

You can **reduce**, **substitute**, or **omit** the amount of ingredients. Additionally, you can add some spices, herbs, and flavorings to replace some of the flavor usually provided by fat, sugar, or salt. Change is gradual. Make a few small changes as first. See what changes are acceptable to your family.

# Investigate! Diabetes: Diet & Exercise

## Standards References

### LANGUAGE ARTS GLEs

Grade 5: 12

Grade 6: 11

Grade 7: 9

Grade 8: 9

### HEALTH Benchmarks

1-M-3

3-M-1

5-M-4

5-M-5

## Materials

1. The OrganWise Guys: Undercover Diabetes Health Agents! M. Lombardo
2. Sentence strips
3. Construction paper
4. Glue sticks
5. Answer key

## Activity Overview

Participants will listen to the presenter read The OrganWise Guys: Undercover Diabetes Health Agents! Then they will use sentence strips to restate the information they learned about diabetes from the story.

## Key Concepts

- Diabetes affects the pancreas' ability to make insulin and digest carbohydrates.
- There are two types of diabetes, Type 1 and Type 2.
- In either type of diabetes, careful decision making about diet and exercise is essential.
- Eating meals that are high in fiber and low in fat is important in helping the pancreas do its job of digesting carbohydrates.
- Getting enough exercise and water are also beneficial.
- Language arts expectations concern the ability to demonstrate understanding of texts by sequencing events and steps in a process.
- Anticipation in this activity is that participants can organize individual paragraphs with opening, topic, and concluding sentences as well as sentences that provide supporting details.

## Procedure

Preparation: Print the Key Concepts Card and the Lab Instructions Card on heavy cardstock and place at the Explore Station along with the materials.

1. Listen carefully to the story, The OrganWise Guys: Undercover Diabetes Health Agents!
2. Take the sentence strips provided and paste them onto a sheet of construction paper in a logical order.
3. The first strip placed should state an opening to the story.
4. The second strip should state the main idea of the story.
5. Paste three more strips that provide supporting details.
6. Finally, paste a strip that best concludes the story.
7. Check your work with the answer key.
8. Read and discuss the Key Concepts!
9. What are important steps that must be taken to possibly avoid or delay becoming ill with Type 2 Diabetes?
10. What must a person with Type 2 Diabetes do to keep the illness under control?
11. Is it possible for people with diabetes to live reasonably normal lives?
12. Be sure to write what you have learned and stamp your *Passport to Good Health!*

## Closure/Evaluation

After completing the activity, read the information found under "Key Concepts" and discuss the changes in your dietary habits that you will make in order to decrease your chances of developing Type 2 Diabetes or to maintain optimum health if you already have either type of diabetes.

# Investigate! Diabetes: Diet & Exercise

## LAB INSTRUCTIONS

In this activity, you will listen to the presenter read The OrganWise Guys: Undercover Diabetes Health Agents! Then you will then use sentence strips to restate the information you learned about diabetes from the story.

1. Listen carefully to the story.
2. Take the sentence strips provided and paste them onto a sheet of construction paper in a logical order.
3. The first strip placed should state an opening to the story.
4. The second strip should state the main idea of the story.
5. Paste five more strips that could be included in a paragraph of supporting details.
6. Then paste four strips that could be included in a second paragraph of supporting details.
7. Finally, paste a strip that best concludes the story.
8. Check your work with the answer key.

### **Read and discuss your Key Concepts!**

What did you find out about diabetes and healthy choices?

Be sure to record what you have learned and stamp your

*Passport to Good Health!*

Lombardo, M., D.C. (2004) The OrganWise Guys: Undercover Diabetes Health Agents! Duluth, GA:Wellness Incorporated.

 Investigate! Diabetes: Diet & Exercise  
Sentence Strips

Directions: Cut these sentence strips along dotted lines. Arrange the strips in a logical order and paste onto a sheet of construction paper.

The pancreas is the organ that produces a substance called insulin.

Drinking plenty of water is a healthy habit.

Diabetes is a serious health problem.

In summary, healthy lifestyle choices can make a difference in the prevention of Type 2 Diabetes and in the treatment of Type 1 Diabetes.

Insulin acts like a key to unlock the gates of cells and lets simple sugars in to be used for energy.

One choice is to eat foods that are high in fiber and low in fat.

Making healthy lifestyle choices can help keep insulin keys working.

Another healthy habit is to exercise regularly.

It is important to learn what can be done to manage Type 1 Diabetes and to prevent Type 2 Diabetes.

Type 2 Diabetes is a disease of the pancreas and is caused when the insulin keys do not work properly.

Type 1 Diabetes is an illness in which the pancreas cannot make insulin.

There are two types of diabetes.

# Investigate! Diabetes: Diet & Exercise

## Sentence Strips Answer Key

Note: This is just a suggested order. Some sentences may vary in order; however, the first and last sentences are in the correct order.

1. Diabetes is a serious health problem.
2. It is important to learn what can be done to manage Type 1 Diabetes and to prevent Type 2 Diabetes.
3. There are two types of diabetes.
4. Type 1 Diabetes is an illness in which the pancreas can not make insulin.
5. Type 2 Diabetes is a disease of the pancreas and is caused when the insulin keys do not work properly.
6. The pancreas is the organ that produces a substance called insulin.
7. Insulin acts like a key to unlock the gates of cells and lets simple sugars in to be used for energy.
8. Making healthy lifestyle choices can help keep insulin keys working.
9. One choice is to eat foods that are high in fiber and low in fat.
10. Another healthy habit is to exercise regularly.
11. Drinking plenty of water is a healthy habit.
12. In summary, healthy lifestyle choices can make a difference in the prevention of Type 2 Diabetes and in the treatment of Type 1 Diabetes.

## Investigate! Diabetes: Diet & Exercise

Diabetes affects the pancreas' ability to make insulin and digest carbohydrates. Fruits, vegetables, grains, cereals, and sweets contain carbohydrates.

There are two types of diabetes, Type 1 and Type 2. Type 1 cannot be prevented because it occurs when the body's immune system destroys the cells that make insulin. People with Type 1 must take insulin and make careful choices about the food they eat. In Type 2 Diabetes, the pancreas can make insulin, but the insulin doesn't work efficiently. This type may be prevented or delayed when a person makes healthy decisions.

By making the decision to eat low-fat, high fiber foods, exercise regularly to stay at a healthy weight, and drink enough water, people can facilitate the process of carbohydrate digestion that must take place in the body's cells. A general rule of thumb measure in planning a meal is to include **over** 10 grams of fiber and **under** 10 grams of fat.

Language arts expectations concern the ability to demonstrate understanding in texts by sequencing events and steps in a process. Anticipation in this activity is that participants can organize individual paragraphs with topic sentences, supporting details, and concluding sentences.

# Investigate! Discretionary Calories

## Standards References

### LANGUAGE ARTS GLEs

Grade 5: 4, 13

Grade 6: 3, 12

Grade 7: 1, 10

Grade 8: 1, 10

### HEALTH Benchmarks

1-M-2

3-M-1

## Materials

1. Slide Presentation
2. Food cards
3. Enlarged copy of MyPyramid or a MyPyramid poster
4. Pencils
5. Sticky notes and markers

## Activity Overview

Participants will view a slide presentation on discretionary calories. They will then use the information to place specific foods on the pyramid based on how many discretionary calories each food contains.

## Key Concepts

- Discretionary calories is defined and explored.
- Students will demonstrate an understanding of information by using steps in the process of identifying foods with varying amounts of discretionary calories.
- Defining specific vocabulary words and terms help students use MyPyramid and determine how to include favorite foods in the diet.

## Procedure

Preparation: Print Key Concepts Card, Lab Instructions Card, and Answer Sheet on heavy cardstock and place at the Explore Station along with the materials. Make and laminate enlarged copy of MyPyramid. Post MyPyramid. Copy and laminate food cut-outs provided. Set up the slide presentation. After slide presentation, give participants food cut-outs and enlarged copies of MyPyramid.

1. View the slide presentation taking notes if you wish.
2. Starting with the grain group, decide which food is the most nutrient dense and should be located closest to the base (widest part) of the grain section (orange). Then using what you know about the ingredients of the remaining grain food item, place it near the middle or top of the grain section of the pyramid.
3. Follow this procedure with the remaining food groups until all food cards have been placed appropriately.
4. Check your arrangement of the food cards with the answer sheet located at the station. Time permitting, conduct the exploration and extension noted on the bottom of the answer sheet.
5. Read and discuss the Key Concepts!
6. What is the purpose of discretionary calories?
7. Be sure to write what you have learned and stamp your *Passport to Good Health!*

## Closure/Evaluation

After completing the activity, families read the information found under “Key Concepts” and discuss ways to add favorite foods to their diet using discretionary calories.

# Investigate! Discretionary Calories

## LAB INSTRUCTIONS

1. In this activity, you will view a slide presentation on discretionary calories. You will then use information from the presentation to place specific foods on the pyramid based on how many discretionary calories each contains.
2. Define “essential calories,” “discretionary calories,” and “nutrient-dense foods.”
  - Everyone has a daily calorie allowance for foods. This allowance can be divided into essentials and extras.
  - Essential calories must be used to keep the body functioning and provide energy for physical activity.
  - The remaining calories may be used to add favorite foods to your diet at your discretion. Discretionary calories are the extra calories that can be eaten “at your discretion” after basic nutrition needs are met without exceeding energy requirements.
  - You can maximize your discretionary calories by eating nutrient-dense foods and/or increasing your physical activity. Nutrient-dense foods are those that supply a significant amount of nutrients for the low number of calories they supply. These foods are better choices.
2. On *MyPyramid*, starting with the grain group, decide which food is the most nutrient dense and should be located closest to the base (widest part) of the grain section (orange). Then using what you know about the ingredients of the remaining grain food item, place it near the middle or top of the grain section of the pyramid.
3. Follow this procedure with the remaining food groups until all food cut-outs have been placed appropriately.
4. Check your arrangement of the food cards with the answer sheet located at the station.

### **Read and discuss your Key Concepts!**

How can you add favorite foods to your diet without going beyond your daily caloric needs?

Be sure to record what you have learned and stamp your  
*Passport to Good Health!*

Investigate! Discretionary Calories



Apple



Apple pie slice



Non-fat milk



Ice cream



Potato



French fries

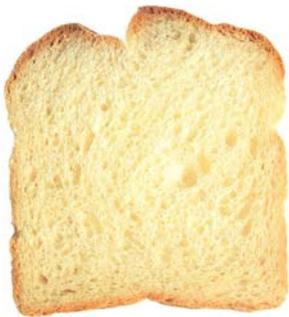
 Investigate! Discretionary Calories



Turkey



Hot dog

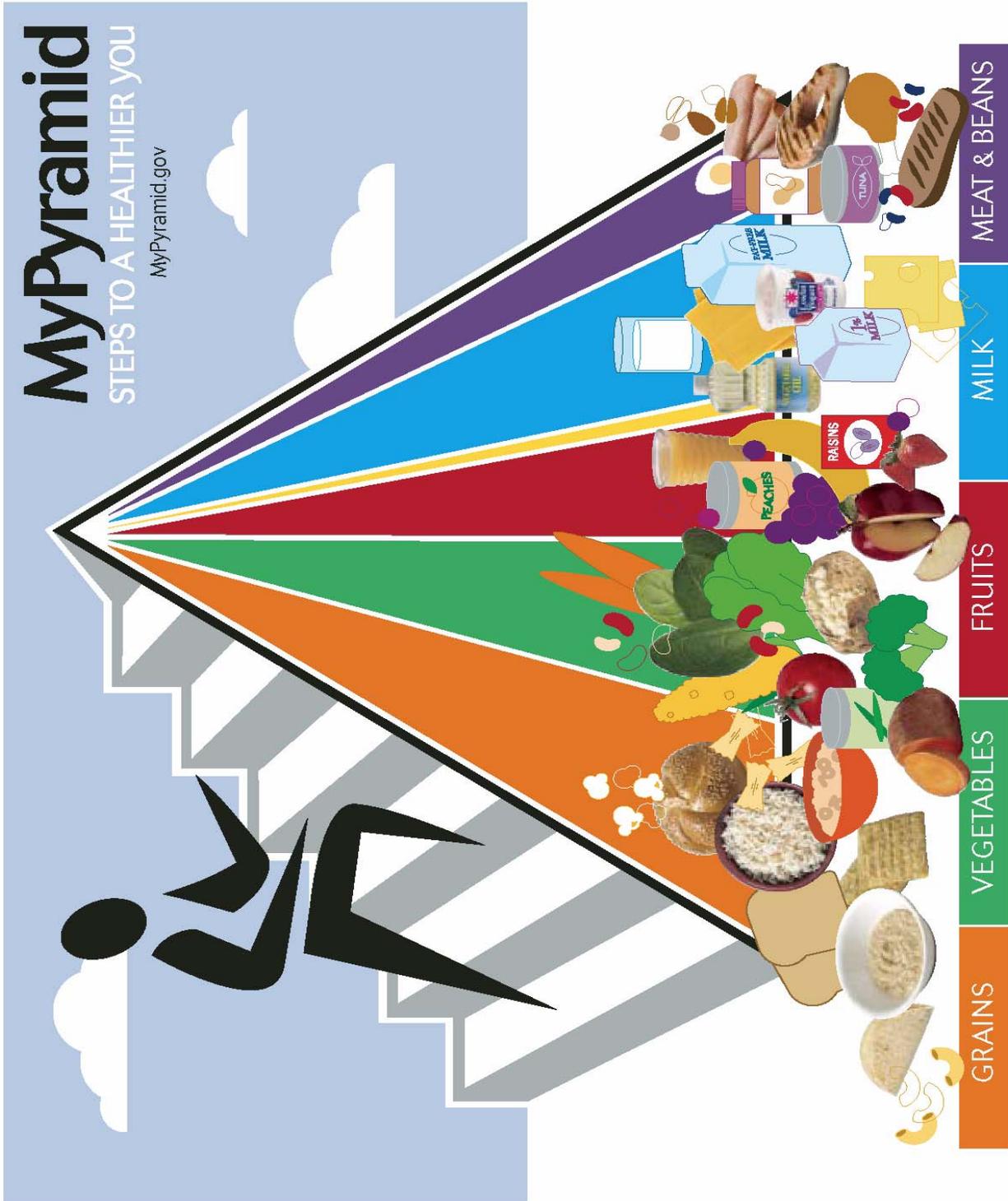


Sliced bread



Cinnamon roll

Investigate! Discretionary Calories  
*MyPyramid*



# Investigate! Discretionary Calories

## Answers

Placement	Grains	Vegetables	Fruits	Milk	Meat & Beans
Top	Cinnamon Roll	French Fries	Apple pie slice	Ice cream	Hot dog
Bottom	Sliced bread	Baked potato	Apple	Non-fat milk	Turkey

## Exploration and Extension

Time permitting, write the foods listed below on sticky notes and have students place the foods in the correct section of *MyPyramid*.

Placement	Grains	Vegetables	Fruits	Milk	Meat & Beans
Top	Glazed donuts	French Fries	Apple pie	Whole milk	Fried chicken
Middle	Biscuit	Mashed potatoes	Applesauce	2% Milk	Barbequed chicken
Bottom	Sliced bread	Baked potato	Apple	Skim milk	Broiled chicken

## Investigate! Discretionary Calories

The concept of discretionary calories was developed by the 2005 Dietary Guidelines Advisory Committee to address the need for people to eat for enjoyment and comfort in addition to eating for good health.

Everyone has a daily calorie allowance for foods. This allowance can be divided into essentials and extras. Essential calories must be used to keep the body functioning and provide energy for physical activities. The remaining calories may be used to add favorite foods at your discretion. These are your discretionary calories, calories that can be used “at your discretion” after basic nutrition needs are met without exceeding energy requirements.

Most discretionary calorie allowances are very small, between 100 and 300 calories, especially for those who are not physically active. For many people, the discretionary calorie allowance is totally used by the foods they choose in each food group, such as higher fat meats, cheeses, whole milk, or sweetened bakery products.

However, there are two ways to maximize your discretionary calories. By eating nutrient dense foods, you can meet your nutrient needs with fewer calories. This means you will have more calories to use “at your discretion” for other foods. The best way to eat discretionary calories is to choose nutrient-dense foods from the food groups in *MyPyramid*. The second way is to increase your physical activity, which also supports a healthy lifestyle for you and your family.

Defining words helps students to use them appropriately.

# Investigate! Eating for a Healthy Heart

## Standards References

### LANGUAGE ARTS GLEs

Grade 5: 12, 25

Grade 6: 11, 24

Grade 7: 9, 22

Grade 8: 9, 22

### HEALTH Benchmarks

1-M-3

3-M-1

5-M-4

5-M-5

## Materials

1. *Easy Food Tips for Heart-Healthy Eating* pamphlet, and other brochures and posters on heart health & diet from the American Heart Association
2. Copies of Rebus letter with word bank
3. Answer key
4. Pencils

## Activity Overview

Participants will peruse pamphlets that provide information on the heart and dietary guidelines for maintaining a healthy heart. They will also read posters that provide brief highlights of the key concepts. Then they will fill in the blanks of a rebus style letter that has been written by the heart to its owner. A word bank will be provided.

## Key Concepts

Maintain a healthy heart with a diet that is:

- Low in saturated fat and cholesterol.
- High in fruits, vegetables and grain products that contain fiber.
- Limited in sodium to less than one teaspoon a day.
- Limited to the daily caloric intake needed to keep weight in normal range.
- Students should be able to identify the main idea and draw conclusions from reading materials.

## Procedure

Preparation: Print the Key Concepts Card and the Lab Instructions Card on heavy cardstock and place at the Explore Station along with the materials.

Have participants

1. Look over the pamphlet, *Easy Food Tips for Heart-Healthy Eating*, to determine the relationship between diet and a healthy heart.
2. Identify the main ideas and draw conclusions about heart healthy practices
3. Fill in the blanks in the “letter from the heart” using word bank.
4. Use the Answer key to check your work.
5. Read and discuss the Key Concepts!
6. Write what they have learned and stamp their *Passport to Good Health!*

## Closure/Evaluation

After completing the activity, families read the information found under “Key Concepts” and discuss the changes in their dietary habits that they will make in order to maintain healthy hearts.

# Investigate! Eating for a Healthy Heart

## LAB INSTRUCTIONS

In this activity, you will look over a pamphlet, *Easy Food Tips for Heart-Healthy Eating*, which provides information on the heart and dietary guidelines for maintaining a healthy heart. Then you will fill in the blanks of a rebus style letter that has been written by your heart pleading with you to take action and make dietary changes to keep it healthy. A word bank is provided.

1. Look over the pamphlet and discuss the main concepts.
2. Using the information you have just read, fill in the blanks of the letter that your heart has written to you. The first letter of the word that goes in the blank is given and a word bank is provided.
3. Use the answer key to check your work.
4. Take the letter home and post it on your refrigerator.

### **Read and discuss your Key Concepts!**

What conclusions can you draw from reading information about keeping the heart healthy? What are three good lifestyles that can keep your heart healthy?

Be sure to record what you have learned and stamp your  
*Passport to Good Health!*

# Investigate! Eating for a Healthy Heart

## Activity: Letter from Your Heart

Dear \_\_\_\_\_,

Heart d\_\_\_\_\_ is the Number One killer of men and women in the United States; s\_\_\_\_\_ is Number Three. Your life depends on me, and my life depends on you. I work as a pump to send oxygen-rich blood through all parts of your body. Blood contains oxygen and nutrients that every cell in your body needs to survive. How long I stay healthy and work properly is up to you!

Two major factors in my health are d\_\_\_\_\_ and exercise. This letter to you is an appeal for you to examine your eating habits to decide if you are taking certain steps to protect me. First, take a look at the foods you eat. A healthful eating plan means choosing the right foods from each of the five food groups and preparing them in healthy ways.

Healthy food habits can help you reduce three of the major r\_\_\_\_\_ factors for heart disease – high c\_\_\_\_\_, high blood p\_\_\_\_\_ and excess body weight. They'll also help reduce your risk of s\_\_\_\_\_, because heart disease and high blood pressure are major risk factors for stroke.

Eat a variety of f\_\_\_\_\_ and v\_\_\_\_\_. Use MyPyramid to find out how many servings you need of each food group. Include f\_\_\_\_\_-free and low-fat products, fish, beans, skinless poultry and l\_\_\_\_\_ meats. Choose fats and oils with 2 grams or less s\_\_\_\_\_ fat per tablespoon. Balance the number of calories you eat with the number you use each day. Limit your intake of foods that are high in calories but low in nutrients, including foods like soft drinks and candy that have a lot of s\_\_\_\_\_. Limit foods high in saturated fat, trans fat and cholesterol, such as whole milk products, fatty meats, tropical oils, partially hydrogenated vegetable oils and egg yolks. Eat less than one teaspoon of salt per day.

Now that you understand the importance of nutrition in keeping me healthy, I need to let you know that regular physical activity is also vital. Walk or do other activities for at least 60 minutes (30 for adults) on most days.

In closing, I hope that you will seriously consider taking action so that I can stay in action to help you live a longer and stronger life.

Truly,

Your Heart

# Investigate! Eating for a Healthy Heart

## Letter from Heart Word Bank

cholesterol	fruits	sodium
disease	lean	stroke
diet	pressure	sugars
exercise	risk	vegetables
fat	saturated	

# Investigate! Eating for a Healthy Heart

## Activity: Letter from Your Heart Key

Dear \_\_\_\_\_,

Heart **disease** is the Number One killer of men and women in the United States; **stroke** is Number Three. Your life depends on me, and my life depends on you. I work as a pump to send oxygen-rich blood through all parts of your body. Blood contains oxygen and nutrients that every cell in your body needs to survive. How long I stay healthy and work properly is up to you!

Two major factors in my health are **diet** and exercise. This letter to you is an appeal for you to examine your eating habits to decide if you are taking certain steps to protect me. First, take a look at the foods you eat. A healthful eating plan means choosing the right foods from each of the five food groups and preparing them in healthy ways.

Healthy food habits can help you reduce three of the major **risk** factors for heart disease – high **cholesterol**, high blood **pressure** and excess body weight. They'll also help reduce your risk of **stroke**, because heart disease and high blood pressure are major risk factors for stroke.

Eat a variety of **fruits** and **vegetables**. Use MyPyramid to find out how many servings you need of each food group. Include **fat**-free and low-fat products, fish, beans, skinless poultry and **lean** meats. Choose fats and oils with 2 grams or less **saturated** fat per tablespoon. Balance the number of calories you eat with the number you use each day. Limit your intake of foods that are high in calories but low in nutrients, including foods like soft drinks and candy that have a lot of **sugars**. Limit foods high in saturated fat, trans fat and cholesterol, such as full-fat milk products, fatty meats, tropical oils, partially hydrogenated vegetable oils and egg yolks. Eat less than one teaspoon of salt per day.

Now that you understand the importance of nutrition in keeping me healthy, I need to let you know that regular physical activity is also vital. Walk or do other activities for at least 60 minutes (30 for adults) on most days.

In closing, I hope that you will seriously consider taking action so that I can stay in action to help you live a longer and stronger life.

Truly,

Your Heart

## Investigate! Eating for a Healthy Heart

- A diet high in fruits, vegetables and grain products that contain fiber, particularly soluble fiber, and are low in saturated fat and cholesterol may reduce the risk of coronary heart disease.
- Cholesterol is a waxy fat-like substance produced by the body and consumed in the diet. A high intake of dietary cholesterol raises blood cholesterol in some people.
- A high level of cholesterol in the blood is a major risk factor for coronary heart disease. When blood levels are high, excess cholesterol is deposited in the walls of arteries throughout the body. Over time, as arteries become blocked with fatty deposits, disease occurs. A blockage in an artery leading to the brain can cause a stroke, while a blockage in the coronary arteries leads to a heart attack.
- Most types of saturated fat raise blood cholesterol. Saturated fats are normally solid at room temperature and include the fats found in most animal products such as meat, dairy products, and eggs and certain vegetable oils like hydrogenated or partially hydrogenated oils, coconut and coconut oil, palm and palm kernel oil, and cocoa butter.
- High blood pressure is another risk factor for heart disease, and in some people, sodium increases the risk of high blood pressure. Limit the amount of sodium you eat each day to about one teaspoon.
- Overweight is a risk factor for heart disease, and reducing fat while increasing fiber can benefit those who want to lose or maintain their weight.
- A food's fiber content also may be of interest to consumers seeking "heart-healthy" foods. Some studies suggest that dietary fiber – that is, fiber from foods such as fruits, vegetables and grains – may help lower the risk of heart disease.
- The overall goal should be to select foods that together do not exceed 100% of the Daily Value each for fat, saturated fat, cholesterol, and sodium and that will meet or exceed the amounts for other nutrients.

# Investigate! Eating for a Healthy Heart

## **DIETARY GUIDELINES KEY RECOMMENDATIONS** (The U.S. Dietary Guidelines vary slightly from those supported by the American Heart Association.)

- Consume less than 10 percent of calories from saturated fatty acids and less than 300 mg/day of cholesterol, and keep *trans* fatty acid consumption as low as possible.
- Keep total fat intake between 20 to 35 percent of calories, with most fats coming from sources of polyunsaturated and monounsaturated fatty acids, such as fish, nuts, and vegetable oils.
- When selecting and preparing meat, poultry, dry beans, and milk or milk products, make choices that are lean, low-fat, or fat-free.
- Limit intake of fats and oils high in saturated and/or *trans*-fatty acids, and choose products low in such fats and oils.
- **Key Recommendations for children and adolescents.** Keep total fat intake between 30 to 35 percent of calories for children 2 to 3 years of age and between 25 to 35 percent of calories for children and adolescents 4 to 18 years of age, with most fats coming from sources of polyunsaturated and monounsaturated fatty acids, such as fish, nuts, and vegetable oils.

The activities in this lesson require students to identify main ideas and draw conclusions from reading materials.

# Investigate! Evaluate Eating Habits Using MyPyramid

## Standards References

### LANGUAGE ARTS GLEs

Grade 5: 13, 48

Grade 6: 12, 48

Grade 7: 10, 46

Grade 8: 10, 46

### HEALTH Benchmarks

1-M-2

3-M-1

## Materials

1. MyPyramid Worksheet – Sample
2. MyPyramid Worksheet – Sample Answer Key
3. My Pyramid Worksheet – Blank

### Activity Overview

Using MyPyramid mini-posters, participants will use an evaluation worksheet to write and evaluate a meal plan for a physically inactive 10 year-old girl.

### Key Concepts

- MyPyramid system was designed to guide Americans to eat foods from all food groups in moderation.
- Eat more of some foods such as whole grains, vegetables and fruit and less of others such as those that contain saturated fat, added sugar.
- Be physically active every day.
- This activity requires participants to interpret information from sources such as charts, tables, and diagrams; and to examine the relationships between life experiences and texts to generate solutions to problems.

### Procedure

Preparation: Print the Key Concepts Card and the Lab Instructions Card on heavy cardstock and place at the Explore Station. Make one copy of *MyPyramid worksheet – Sample* for each family. Make copies of the *MyPyramid worksheet – Blank* for each person. Post the Answer Key for *MyPyramid worksheet – Sample*.

1. The MyPyramid worksheet helps us to compare what we eat in one day to what is recommended. First look at the *MyPyramid – Sample* for a 10 year-old girl who is moderately active.
2. On the *MyPyramid – Sample*, review the columns and rows of *MyPyramid* worksheet. Identify the column listing the “food groups” and “goal.”
3. Review the foods eaten for the day listed under the first column.
4. In the second to last column, write in the foods eaten for the day in row by the appropriate food group.
5. In the last column, “estimate your total,” write in the total of foods eaten in each food group.
6. Compare the totals to the goals for each row. What did you discover when you compared the actual choices for the day to *MyPyramid* goals?
7. Which foods were eaten that do not fit any into any food group?
8. Make suggestion to improve eating and physical activity habits in the box at the bottom of the page.
9. Compare your answers to the answer key.
10. Take the blank *MyPyramid Worksheet* and fill in the goals for your age, gender, and activity level. Complete the sheets at home.
11. Read and discuss the Key Concepts!
12. Be sure to write what you have learned and stamp your *Passport to Good Health!*

### Closure/Evaluation

After completing the activity, families read the information found under “Key Concepts” and discuss the changes needed in their daily diets to more closely align with MyPyramid recommendations. Take the blank worksheets home to complete.



# Investigate! Evaluate Your Eating Habits Using MyPyramid

## LAB INSTRUCTIONS

1. The *MyPyramid* worksheet helps us to compare what we eat in one day to what is recommended. First look at the *MyPyramid – Sample* for a 10-year old girl who is moderately active. She needs 1,800 calories.
2. On the *MyPyramid – Sample*, review the columns and rows of worksheet. Identify the columns listing the “food groups” and “goal.”
3. Review the foods eaten for the day listed under the first column.
4. In the second to last column, write in the foods eaten for the day in the row by the appropriate food group.
5. In the last column, “estimate your total,” write in the total of foods eaten from each food group for the day.
6. Compare the totals to the goals for each row. What did you discover when you compared the actual choices for the day to *MyPyramid* goals?
7. Which foods were eaten that do not fit into any food group?
8. Make suggestions to improve eating and physical activity habits in the box at the bottom of the page.
9. Compare your answers to the answer key.
10. Take the blank *MyPyramid Worksheet* and fill in the goals for your age, gender, and activity level. Complete the sheets at home.

### **Read and discuss your Key Concepts!**

What did you discover when you compared the menu plan to MyPyramid daily recommendations? Based on this analysis, do you think that you should take a closer look at your daily food intake?

Be sure to record what you have learned and stamp your  
*Passport to Good Health!*

# Investigate! Evaluate Your Eating Habits Using MyPyramid



## MyPyramid Worksheet

Check how you did today and set a goal to aim for tomorrow

**SAMPLE**  
10 year-old girl, moderately active

Write in Your Choices for Today	Food Group	Tip	Goal Based on a 1800 calorie pattern.	List each food choice in its food group*	Estimate Your Total
<b>Breakfast</b> 2 biscuits 1 C. skim milk ½ C. orange juice 1 T. jelly 1 T. margarine	<b>GRAINS</b>	Make at least half your grains whole grains	<b>6 ounce equivalents</b> (1 ounce equivalent is about 1 slice bread, 1 cup dry cereal, or ½ cup cooked rice, pasta, or cereal)	_____	ounce equivalents
<b>Lunch</b> 2 oz. hamburger patty Hamburger bun ½ C. carrot sticks 1 C. chocolate milk	<b>VEGETABLES</b>	Try to have vegetables from several subgroups each day	<b>2 ½ cups</b> Subgroups: Dark Green, Orange, Starchy, Dry Beans and Peas, Other Veggies	_____	cups
<b>Supper</b> 3 oz. baked chicken ½ C. mashed potatoes ½ C. green beans 1 roll 1 soda	<b>FRUITS</b>	Make most choices fruit, not juice	<b>1 ½ cups</b>	_____	cups
	<b>MILK</b>	Choose fat-free or low fat most often	<b>3 cups</b> (1 ½ ounces cheese = 1 cup milk)	_____	cups
	<b>MEAT &amp; BEANS</b>	Choose lean meat and poultry. Vary your choices—more fish, beans, peas, nuts, and seeds	<b>5 ounce equivalents</b> (1 ounce equivalent is 1 ounce meat, poultry, or fish, 1 egg, 1 T. peanut butter, ½ ounce nuts, or ¼ cup dry beans)	_____	ounce equivalents
	<b>PHYSICAL ACTIVITY</b>	Build more physical activity into your daily routine at home and work.	At least <b>60 minutes</b> of moderate to vigorous activity a day, 10 minutes or more at a time.	_____	minutes

How did you do today?

Great

So-So

Not so Great

My food goal for tomorrow is: \_\_\_\_\_

My activity goal for tomorrow is: \_\_\_\_\_

\*Some foods don't fit into any group. These "extras" may be mainly fat or sugar—limit your intake of these.

# Investigate! Evaluate Your Eating Habits Using MyPyramid



## MyPyramid Worksheet

Check how you did today and set a goal to aim for tomorrow

**SAMPLE - KEY**  
10 year-old girl, moderately active

Write in Your Choices for Today	Food Group	Tip	Goal Based on a 1800 calorie pattern.	List each food choice in its food group*	Estimate Your Total
<b>Breakfast</b> 2 biscuits 1 C. skim milk ½ C. orange juice 1 T. jelly 1 T. margarine	<b>GRAINS</b>	Make at least half your grains whole grains	<b>6 ounce equivalents</b> (1 ounce equivalent is about 1 slice bread, 1 cup dry cereal, or ½ cup cooked rice, pasta, or cereal)	2 biscuits 2 hamburger bun 1 roll	5 ounce equivalents
Lunch 2 oz. hamburger patty hamburger bun ½ C. carrot sticks 1 C. chocolate milk	<b>VEGETABLES</b>	Try to have vegetables from several subgroups each day	<b>2 ½ cups</b> Subgroups: Dark Green, Orange, Starchy, Dry Beans and Peas, Other Veggies	½ C. mashed potatoes ½ C. green beans ½ C. carrot sticks ½ C. orange juice	1 1/2 cups
Supper 3 oz. baked chicken ½ C. mashed potatoes ½ C. green beans 1 roll 1 soda	<b>FRUITS</b>	Make most choices fruit, not juice	<b>1 ½ cups</b>	½ C. orange juice	1/2 cups
	<b>MILK</b>	Choose fat-free or low fat most often	<b>3 cups</b> (1 ½ ounces cheese = 1 cup milk)	1 C. Skim milk 1. C. Milk	2 cups
	<b>MEAT &amp; BEANS</b>	Choose lean meat and poultry. Vary your choices—more fish, beans, peas, nuts, and seeds	<b>5 ounce equivalents</b> (1 ounce equivalent is 1 ounce meat, poultry, or fish, 1 egg, 1 T. peanut butter, ½ ounce nuts, or ¼ cup dry beans)	2 oz. hamburger patty 3 oz. chicken	5 ounce equivalents
	<b>PHYSICAL ACTIVITY</b>	Build more physical activity into your daily routine at home and work.	At least <b>60 minutes</b> of moderate to vigorous activity a day. 10 minutes or more at a time.	*Some foods don't fit into any group. These "extras" may be mainly fat or sugar—limit your intake of these: jelly, margarine, soda	30 minutes

How did you do today?  Great  So-So  Not so Great

My food goal for tomorrow is: \_\_\_\_\_

My activity goal for tomorrow is: \_\_\_\_\_

Eat more vegetables, fruits, and dairy foods.  
Walk the dog for 20 minutes, jump rope for 10 minutes.

# Investigate! Evaluate Your Eating Habits Using MyPyramid



## MyPyramid Worksheet

Check how you did today and set a goal to aim for tomorrow

**Blank**  
An 1,800 calorie diet is average. For specific calories and number of servings for an individual, visit MyPyramid.gov.

Write in Your Choices for Today	Food Group	Tip	Goal Based on a 1800 calorie pattern.	List each food choice in its food group*	Estimate Your Total
	<b>GRAINS</b>	Make at least half your grains whole grains	<b>6 ounce equivalents</b> (1 ounce equivalent is about 1 slice bread, 1 cup dry cereal, or 1/2 cup cooked rice, pasta, or cereal)		ounce equivalents
	<b>VEGETABLES</b>	Try to have vegetables from several subgroups each day	<b>2 1/2 cups</b> Subgroups: Dark Green, Orange, Starchy, Dry Beans and Peas, Other Veggies		cups
	<b>FRUITS</b>	Make most choices fruit, not juice	<b>1 1/2 cups</b>		cups
	<b>MILK</b>	Choose fat-free or low fat most often	<b>3 cups</b> (1 1/2 ounces cheese = 1 cup milk)		cups
	<b>MEAT &amp; BEANS</b>	Choose lean meat and poultry. Vary your choices—more fish, beans, peas, nuts, and seeds	<b>5 ounce equivalents</b> (1 ounce equivalent is 1 ounce meat, poultry, or fish, 1 egg, 1 T. peanut butter, 1/2 ounce nuts, or 1/4 cup dry beans)		ounce equivalents
	<b>PHYSICAL ACTIVITY</b>	Build more physical activity into your daily routine at home and work.	At least <b>60 minutes</b> of moderate to vigorous activity a day, 10 minutes or more at a time.	*Some foods don't fit into any group. These "extras" may be mainly fat or sugar—limit your intake of these.	minutes

How did you do today?  Great  So-So  Not so Great

My food goal for tomorrow is: \_\_\_\_\_

My activity goal for tomorrow is: \_\_\_\_\_

# Investigate! Evaluate Your Eating Habits Using *MyPyramid*

*MyPyramid* system was designed to guide Americans to:

- Eat foods from all food groups in moderation.
- Eat more of some foods (whole grains, fat-free or low-fat milk products, vegetables, fruits), and less of others (foods high in saturated or trans-fats, added sugars, cholesterol, and salt).
- Choose forms of foods that limit intake of saturated or trans-fats, added sugars, cholesterol, and salt such as fried foods.
- Be physically active every day.

The system also emphasizes portion sizes and number of servings; for example, the amount needed daily of each food group varies depending on age, gender, and level of physical activity. Girls from ages 9 through 18, who get less than 30 minutes of moderate physical activity, have a daily allowance of five to six ounce equivalents of the grain group (half of which should be whole grains). Boys in this age and activity category have an allowance of six to seven ounce equivalents in the grain group. The allowances increase as physical activity increases.

Therefore, when you are evaluating your eating habits, you must think about the variety and the amount of food you consume. This information can be found at the *MyPyramid.gov* web site. A few examples are shown in this activity so you can evaluate your own eating habits. Plus, you may see that minor changes need to be made in the amounts of each food you consume.

The reading and writing in this activity addressed several language arts expectations that are required in grades 5-8. In one instance, you interpreted information from charts, tables, and diagrams. Moreover, you examined the relationships between life experiences and texts to generate solutions to problems.

# Investigate! Exercise Can Be Fun

## Standards References

### ELA GLEs

Grade 5: 12, 48

Grade 6: 11, 48

Grade 7: 9, 46

Grade 8: 9, 46

### HEALTH Benchmarks

1-M-2

3-M-1

## Materials

1. Printed directions for line dance
2. CD player
3. Line dance CD such as *Rockin' Robin*

## Activity Overview

Participants will use listening and interpreting skills to learn a new line dance. They will discover that dancing is an enjoyable way to be physically active.

## Key Concepts

- New dietary guidelines recommend that teens get at least one hour of physical activity each day of the week.
- The benefits of physical activity are vital to good physical and mental health.
- Line dancing provides students and families with an opportunity to practice listening and interpreting skills.

## Procedure

Preparation: Print the Key Concepts Card, the Lab Instructions Card, and line dance instructions on heavy cardstock and place at the Explore Station along with the CD player and music. A physical education teacher would be helpful to assist at this station.

1. Review the benefits of regular physical activity.
2. Note that line dancing allows students an opportunity to practice listening skills and reach a recommended goal of 60 minutes of physical activity daily.
3. Read the directions for the line dance.
4. You and members of your group may practice the steps before the music begins.
5. Form a line with your group or join the others.
6. Listen to the music and follow the directions given.
7. Relax and have fun.
8. Read and discuss the Key Concepts!
9. What did you find out about the benefits of physical activity?
10. What changes to this dance could you make to burn more calories?
11. What other types of dancing could you do to increase your physical activity level?
12. Be sure to write what you have learned and stamp your *Passport to Good Health!*

## Closure/Evaluation

After completing the activity, families read the information found under “Key Concepts” and discuss the benefits of enjoyable physical activities.

# Investigate! Exercise Can Be Fun

## LAB INSTRUCTIONS

In this activity, you will use your listening and interpreting skills to learn a new line dance. You will discover that dancing is an enjoyable way to be physically active.

1. Review the benefits of physical activity.
  - Teens need at least one hour of physical activity each day of the week.
  - Regular physical activity can reduce the risk of developing heart disease, diabetes, high blood pressure and colon cancer.
  - Regular physical activity helps control weight and builds healthy bones, muscles and joints. It may reduce feelings of depression and anxiety while promoting psychological well-being.
  - Participating in physical activity, exercise, and sports can boost self-confidence, encourage social interaction, and offer a chance to have fun.
  - Dance is also a great cardiovascular exercise and helps tone muscles and increase flexibility.
  - Feeling physically fit is priceless.
2. Read the directions for the line dance.
3. You and members of your group may practice the steps before the music begins.
4. Form a line with your group or join the others.
5. Listen to the music and follow the directions given.

### **Read and discuss your Key Concepts!**

What did you find out about the benefits of physical activity?

What changes to this dance could you make to burn more calories? What other types of dancing could you do to increase your physical activity level?

Be sure to record what you have learned and stamp your

*Passport to Good Health!*

# Investigate! Exercise Can Be Fun

## LINE DANCE INSTRUCTIONS – Page 1

Suggested music: Rockin' Robin by Bryan White

Level of Difficulty: Beginner

### **Counts    Step Descriptions**

#### **VINE R, FAN L TWICE**

- 1 Step right foot to right side
- 2 Cross left foot behind right and step
- 3 Step right foot to right side
- 4 Stomp left foot together keeping weight on right foot
- 5 Fan left toes to left side
- 6 Fan left toes back to centre
- 7 Fan left toes to left side
- 8 Fan left toes back to centre (weight remains on right foot)

#### **VINE L, FAN R TWICE**

- 9 Step left foot to left side
- 10 Cross right foot behind left and step
- 11 Step left foot to left side
- 12 Stomp right foot together keeping weight on left foot
- 13 Fan right toes to right side
- 14 Fan right toes back to centre
- 15 Fan right toes to right side
- 16 Fan right toes back to centre (weight remains on left foot)

#### **R HEEL, HOLD/CLAP, R TOES, HOLD/CLAP, R HEEL, TOGETHER, R SIDE, L SLIDE TOGETHER**

- 17 Touch right heel forward
- 18 Hold and clap
- 19 Touch right toes back
- 20 Hold and clap
- 21 Touch right heel forward
- 22 Touch right toes together
- 23 Step right foot to right side
- 24 Slide left foot together (weight ends on right foot)

 **Investigate! Exercise Can Be Fun**  
**LINE DANCE INSTRUCTIONS – Page 2**

**L HEEL, HOLD/CLAP, L TOES, HOLD/CLAP, L HEEL,  
TOGETHER, L SIDE, R SLIDE TOGETHER**

- 25 Touch left heel forward
- 26 Hold and clap
- 27 Touch left toes back
- 28 Hold & clap
- 29 Touch left heel forward
- 30 Touch left toes together
- 31 Step left foot to left side
- 32 Slide right foot together (weight ends on left foot)

**STEP SWING & SNAP, VINE R**

- 33 Step right foot to right side and swing both arms to the right
- 34 Touch left foot together and snap fingers on both hands
- 35 Step left foot to left side and swing both arms to the left
- 36 Touch right foot together and snap fingers on both hands
- 37 Step right foot to right side
- 38 Cross left foot behind right and step
- 39 Step right foot to right side
- 40 Touch left foot together

**STEP SWING & SNAP, VINE L WITH 1/4 TURN L**

- 41 Step left foot to left side and swing both arms to the left
- 42 Touch right foot together and snap fingers on both hands
- 43 Step right foot to right side and swing both arms to the right
- 44 Touch left foot together & snap fingers on both hands
- 45 Step left foot to left side
- 46 Cross right foot behind left and step
- 47 Step left foot to left side turning 1/4 left
- 48 Touch right foot together (option - scuff right foot forward)

**FORWARD DIAGONAL STEP TOUCHES WITH CLAPS**

- 49 Step right foot forward on a right diagonal
- 50 Touch left foot together and clap
- 51 Step left foot forward on a left diagonal
- 52 Touch right foot together and clap
- 53 Step right foot forward on a right diagonal
- 54 Touch left foot together and clap
- 55 Step left foot forward on a left diagonal
- 56 Touch right foot together and clap

# Investigate! Exercise Can Be Fun

## LINE DANCE INSTRUCTIONS – Page 3

### **WALK BACK 3, HITCH L, WALK BACK 3, HITCH R**

- 57 Step right foot back
- 58 Step left foot back
- 59 Step right foot back
- 60 Hitch left knee up  
*(optional - hop on right foot while hitching)*
- 61 Step left foot back
- 62 Step right foot back
- 63 Step left foot back
- 64 Hitch right knee up  
*(optional - hop on left foot while hitching)*

### **REPEAT**

## Investigate! Exercise Can Be Fun

The amount of time young people spend watching TV, playing video games, and playing on computers is alarming. The fact that there are over 25 million overweight or obese children tells us that there is a monumental social problem. The USDA *MyPyramid* indicates the importance of physical activity by showing a stick figure climbing steps to the top of the pyramid. Moreover, the new dietary guidelines suggest that pre-teens and teens get at least one hour of physical activity daily.

The benefits of physical activity are numerous and vital. It can reduce the risk of developing heart disease, diabetes, high blood pressure and colon cancer. Regular physical activity helps control weight and builds healthy bones, muscles and joints, and it may reduce feelings of depression and anxiety while promoting psychological well-being.

With all of the rewards of physical fitness, it would seem that the problem of inactive, and possibly overweight kids, would not be so serious. However, the young people link physical activity with uninteresting, structured exercises like jumping jacks or sit-ups.

Young people can easily make physical activity part of their daily lives if they find something they really enjoy doing, and there are many choices. For example, team and individual sports can boost self-confidence, provide opportunities for social interaction, and offer a chance to have fun. When these activities are not good options, hiking, climbing, or biking may be of interest. Dance is also a great cardiovascular exercise and helps tone muscles and increase flexibility.

No matter which physical activity is chosen, it will be time well spent for now and in the future. Feeling physically fit is priceless.

Various line dance routines provide opportunities for students to practice listening and interpreting skills.

# Investigate! Families Combating Childhood Obesity

## Standards References

### LANGUAGE ARTS GLEs

Grade 5: 7

Grade 6: 8

Grade 7: 6

Grade 8: 6

### HEALTH Benchmarks

1-M-2

3-M-1

## Materials

1. Brochure on childhood obesity (If possible, provide each family with a copy to take home.)
2. Multiple choice surveys

## Activity Overview

Participants will read a brochure that explains childhood obesity and ways to help children make necessary changes in their eating and physical activity habits. After reading the brochure, they will complete a multiple choice survey.

## Key Concepts

- About 25 million U.S. children and adolescents are overweight.
- Poor eating habits and lack of ample physical activity are major factors in the problem of obesity among children.
- Diabetes, hypertension and other obesity-related chronic diseases have become more common among children.
- Serious social and emotional problems are often found among overweight children.
- Family members of an obese child can help by improving the diet and level of physical activity of the entire family.
- This language arts activity requires participants to answer literal and inferential questions in oral and written responses about various topics.

## Procedure

Preparation: Print the Key Concepts Card and the Lab Instructions Card on heavy cardstock and place at the Explore Station along with the materials.

1. Read the brochure provided. Pay close attention to the bold print and headings.
2. Complete the survey by circling the letter by your selection.
3. If you are not sure about a question, you may check your brochure.
4. Read and discuss the Key Concepts!
5. What are some ways that families can help children overcome obesity?
6. Be sure to write what you have learned and stamp your *Passport to Good Health!*

## Closure/Evaluation

After completing the activity, families read the information found under “Key Concepts” and discuss the importance of learning and applying information concerning childhood obesity.

# Investigate! Families Combating Childhood Obesity

## LAB INSTRUCTIONS

In this activity, you will read a brochure that explains childhood and adolescent obesity and ways to help students make necessary changes in their eating habits and physical activity. Based on the information you read in the brochure, you will complete a multiple choice survey.

1. Read the brochure provided. Pay close attention to the bold print and headings.
2. Complete the survey by circling the letter that corresponds to your answer to each question.
3. If you are not sure about a question, you may check your brochure.

### **Read and discuss your Key Concepts!**

What are some ways families can help children overcome obesity?

Be sure to record what you have learned and stamp your  
*Passport to Good Health!*

# Investigate! Families Combating Childhood Obesity

## MULTIPLE CHOICE SURVEY

Directions: After reading the brochure on childhood obesity, complete the following statements by circling the letter by the most appropriate response.

1. It is all right for children to be placed on a weight-loss diet if:
  - a. A physician has given orders for a weight loss plan
  - b. Your child has quickly outgrown his/her clothing
  - c. You feel he/she is eating more than normal
  - d. Your child is much larger than his/her peers.
2. Childhood obesity usually results from:
  - a. Eating too many fast foods on a regular basis
  - b. Watching television or playing video games too much
  - c. Eating too many high fat/calorie snack foods
  - d. All of the above.
3. If your child must be on a weight-loss diet, it is best to:
  - a. Plan two separate menus for the family
  - b. Hide the soft drinks and cookies
  - c. Act as a role model
  - d. Promise a treat for every pound lost.
4. To encourage increased daily physical activity:
  - a. Enroll in gymnastics
  - b. Go jogging every morning before school
  - c. Take all television and video game time away.
  - d. Become involved in fun physical activities.

Answers: 1a; 2d; 3c; 4d

# Helping Your Overweight Child

**WIN** *Weight-control Information Network*

**H** **HEALTHY** eating and physical activity habits are key to your child's well-being. Eating too much and exercising too little can lead to overweight and related health problems that can follow children into their adult years. You can take an active role in helping your child—and your whole family—learn healthy eating and physical activity habits that can last for a lifetime.



## Is my child overweight?

Because children grow at different rates at different times, it is not always easy to tell if a child is overweight. If you think that your child is overweight, talk to your health care provider. He or she can measure your child's height and weight and tell you if your child is in a healthy range.

## How can I help my overweight child?

Involve the whole family in building healthy eating and physical activity habits. It benefits everyone and does not single out the child who is overweight.

*Do not put your child on a weight-loss diet unless your health care provider tells you to. If children do not eat enough, they may not grow and learn as well as they should.*

## Be supportive

- Tell your child that he or she is loved, is special, and is important. Children's feelings about themselves often are based on their parents' feelings about them.
- Accept your child at any weight. Children will be more likely to accept and feel good about themselves when their parents accept them.
- Listen to your child's concerns about his or her weight. Overweight children probably know better than anyone else that they have a weight problem. They need support, understanding, and encouragement from parents.

## Encourage healthy eating habits

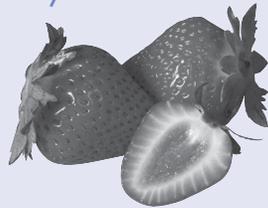
- Buy and serve more fruits and vegetables (fresh, frozen, or canned). Let your child choose them at the store.
- Buy fewer soft drinks and high fat/high calorie snack foods like chips, cookies, and candy. These snacks are OK once in a while, but keep healthy snack foods on hand too and offer them to your child more often.

- Eat breakfast every day. Skipping breakfast can leave your child hungry, tired, and looking for less healthy foods later in the day.
- Plan healthy meals and eat together as a family. Eating together at meal times helps children learn to enjoy a variety of foods.
- Eat fast food less often. When you visit a fast food restaurant, try the healthful options offered.

## Healthy snack foods for your child to try:

Fresh fruit

Fruit canned in juice or light syrup



Small amounts of dried fruits such as raisins, apple rings, or apricots

Fresh vegetables such as baby carrots, cucumber, zucchini, or tomatoes



Reduced fat cheese or a small amount of peanut butter on whole-wheat crackers

Low-fat yogurt with fruit

Graham crackers, animal crackers, or low-fat vanilla wafers

*Foods that are small, round, sticky, or hard to chew, such as raisins, whole grapes, hard vegetables, hard chunks of cheese, nuts, seeds, and popcorn can cause choking in children under age 4. You can still prepare some of these foods for young children, for example, by cutting grapes into small pieces and cooking and cutting up vegetables. Always watch your toddler during meals and snacks.*

- Offer your child water or low-fat milk more often than fruit juice. Fruit juice is a healthy choice but is high in calories.
- Do not get discouraged if your child will not eat a new food the first time it is served. Some kids will need to have a new food served to them 10 times or more before they will eat it.



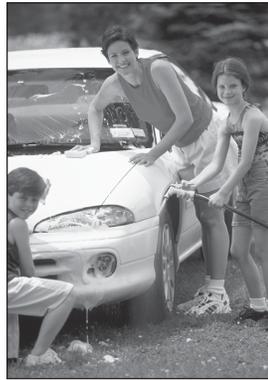
- Try not to use food as a reward when encouraging kids to eat. Promising dessert to a child for eating vegetables, for example, sends the message that vegetables are less valuable than dessert. Kids learn to dislike foods they think are less valuable.
- Start with small servings and let your child ask for more if he or she is still hungry. It is up to you to provide your child with healthy meals and snacks, but your child should be allowed to choose how much food he or she will eat.

## Encourage daily physical activity

Like adults, kids need daily physical activity. Here are some ways to help your child move every day:

- Set a good example. If your children see that you are physically active and have fun, they are more likely to be active and stay active throughout their lives.
- Encourage your child to join a sports team or class, such as soccer, dance, basketball, or gymnastics at school or at your local community or recreation center.
- Be sensitive to your child's needs. If your child feels uncomfortable participating in activities like sports, help him or her find physical activities that are fun and not embarrassing.

- Be active together as a family. Assign active chores such as making the beds, washing the car, or vacuuming. Plan active outings such as a trip to the zoo or a walk through a local park.



Because his or her body is not ready yet, do not encourage your pre-adolescent child to participate in adult-style physical activity such as long jogs, using an exercise bike or treadmill, or lifting heavy weights. *FUN* physical activities are best for kids.

### *FUN* physical activities for your child to try:



- ✓ Riding a bike
- ✓ Climbing on a jungle gym
- ✓ Swinging on a swing set
- ✓ Jumping rope
- ✓ Playing hopscotch
- ✓ Bouncing a ball

Kids need a total of about 60 minutes of physical activity a day, but this does not have to be all at one time. Short 10- or even 5-minute bouts of activity throughout the day are just as good. If your children are not used to being active, encourage them to start with what they can do and build up to 60 minutes a day.

## Discourage inactive pastimes

- Set limits on the amount of time your family spends watching TV and videos, and playing video games.
- Help your child find *FUN* things to do besides watching TV, like acting out favorite books or stories, or doing a family art project. Your child may find that creative play is more interesting than television.
- Encourage your child to get up and move during commercials and discourage snacking when the TV is on.

## Be a positive role model

Children are good learners and they learn what they see. Choose healthy foods and active pastimes for yourself. Your children will see that they can follow healthy habits that last a lifetime.

## Find more help

### Your health care provider

Ask your health care provider for brochures, booklets, or other information about healthy eating, physical activity, and weight control. He or she may be able to refer you to other health care professionals who work with overweight children, such as registered dietitians, psychologists, and exercise physiologists.

## Weight-control program

You may want to think about a treatment program if:

- You have changed your family's eating and physical activity habits and your child has not reached a healthy weight.
- Your health care provider has told you that your child's health or emotional well-being is at risk because of his or her weight.

The overall goal of a treatment program should be to *help your whole family adopt healthy eating and physical activity habits* that you can keep up for the rest of your lives. Here are some other things a weight-control program should do:

- Include a variety of health care professionals on staff: doctors, registered dietitians, psychiatrists or psychologists, and/or exercise physiologists.
- Evaluate your child's weight, growth, and health before enrolling in the program and watch these factors while enrolled.
- Adapt to the specific age and abilities of your child. Programs for 4-year-olds should be different from those for 12-year-olds.
- Help your family keep up healthy eating and physical activity behaviors after the program ends.

### Other resources

- *The Food Guide Pyramid* can help you make healthy food choices for your family. Available from the Center for Nutrition Policy and Promotion, 703-305-7600 and at [www.usda.gov/cnpp/pyrabklt.pdf](http://www.usda.gov/cnpp/pyrabklt.pdf)
- *Tips for Using the Food Guide Pyramid for Young Children 2 to 6 Years Old* can help you teach your young child what to eat to grow and stay healthy. Available from the U.S. Government Printing Office, 202-512-1800 and at [www.usda.gov/cnpp/KidsPyra/PyrBook.pdf](http://www.usda.gov/cnpp/KidsPyra/PyrBook.pdf)
- *Healthy Eating and Physical Activity Across Your Lifespan: Helping Your Child* provides in-depth information for parents. Available from the Weight-control Information Network (WIN), 1-877-946-4627 and at [www.niddk.nih.gov/health/nutrit/pubs/parentips/tipsforparents.htm](http://www.niddk.nih.gov/health/nutrit/pubs/parentips/tipsforparents.htm)
- [www.kidnetic.com](http://www.kidnetic.com) provides healthy eating and physical activity tips for kids and parents.
- [www.KidsHealth.org](http://www.KidsHealth.org) provides information about nutrition and fitness for kids.
- [www.bam.gov](http://www.bam.gov) answers kids' health questions about body and mind.
- [www.verbnow.com](http://www.verbnow.com) encourages kids to get physically active.



National Institute of Diabetes and Digestive and Kidney Diseases

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[www.ific.org](http://www.ific.org)

## Weight-control Information Network

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The Weight-control Information Network (WIN) is a service of the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health, which is the Federal Government's lead agency responsible for biomedical research on nutrition and obesity. Authorized by Congress (Public Law 103-43), WIN provides the general public, health professionals, the media, and Congress with up-to-date, science-based health information on weight control, obesity, physical activity, and related nutritional issues.

WIN answers inquiries, develops and distributes publications, and works closely with professional and patient organizations and Government agencies to coordinate resources about weight control and related issues.

Publications produced by WIN are reviewed by both NIDDK scientists and outside experts. This fact sheet was also reviewed by Leonard Epstein, Ph.D., Professor of Pediatrics, Social and Preventive Medicine, and Psychology, University of Buffalo School of Medicine and Biomedical Sciences, and Gladys Gary Vaughn, Ph.D., National Program Leader, Cooperative State Research, Education, and Extension Services, U.S. Department of Agriculture (USDA).

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This fact sheet is also available at [www.niddk.nih.gov/health/nutrit/nutrit.htm](http://www.niddk.nih.gov/health/nutrit/nutrit.htm).

# Investigate! Families Combating Childhood Obesity

Childhood obesity has reached an epidemic stage and continues to plague youth worldwide. In total, about 25 million U.S. children and adolescents are overweight or nearly overweight. One of the best strategies to combat excess weight in children is to improve the diet and activity levels of the entire family. A family commitment is needed for success in bringing about change

Set a good example. Be physically active and sensitive to individual needs and abilities. Set limits on the amount of screen time with television and video games. Provide a variety of healthful food choices at home. Eat breakfast every day. Eat together as a family. Eat fast foods less often and practice healthful eating styles when eating out and snacking. Select foods that are high in nutrients and low in fat and added sugars. Do not place children on weight reduction diets unless advised and monitored by a healthcare professional.

This English/language arts activity requires participants to answer literal and inferential questions in oral and written responses about various topics, including health.

# Investigate! The Future is Now!

## Standards References

### LANGUAGE ARTS GLEs

Grade 5: 13, 8

Grade 6: 12, 7

Grade 7: 10, 5

Grade 8: 10, 5

### HEALTH Benchmarks

1-M-1

1-M-3

3-M-1

5M-4

5-M-5

## Materials

1. Computer set-up or a three-ring binder
2. PowerPoint presentation
3. Multi-flow maps
4. Pencils

### Activity Overview

Participants will view a MS PowerPoint presentation that explains the relationships between chronic diseases and healthy eating and exercise habits. Participants will use a multi-flow map to make health decisions.

### Key Concepts

- Specific chronic diseases and conditions are linked to poor diet and lack of sufficient exercise
- To avoid these problems in our lives, we must commit ourselves to making significant changes in our eating habits and lifestyles.
- Multi-flow maps are useful in visualizing causes and effects in the decision-making process.

### Procedure

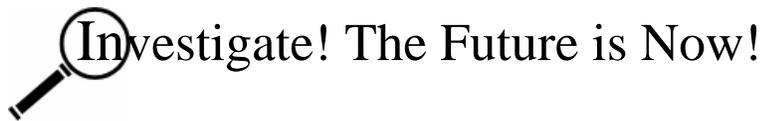
Preparation: Set up the computer at the Explore Station along with blank copies of the multi-flow maps – one completed example and one for participants to complete. If a computer is not available, print the PowerPoint slides and place in a three-ring binder.

You will be asked to use a multi-flow map to link your goals to proposed actions and possible outcomes.

1. View the PowerPoint presentation. Note the causes of effects of lifestyles on health.
2. A multi-flow map is a simple and clear method to state a goal, tell what actions are needed to meet the goal and to predict the outcome of the actions.
3. Review the use of a flow map.
  - a. In the center of the flow map, write something that you want to improve in the areas of nutrition and/or fitness. (This is your goal).
  - b. In the boxes on the top, write three things that you can do to cause you to reach your goal.
  - c. In the boxes on the bottom, write in three effects of reaching this goal.
  - d. Note the frame around the flow map. Write within the frame, the experiences from the past that make you want to improve in this area.
4. Read and discuss the Key Concepts! What did you find out about how your future is influenced by your dietary habits?
5. Be sure to write what you have learned and stamp your *Passport to Good Health!*

### Closure/Evaluation

After completing the activity, families read the information found under “Key Concepts” and discuss the changes in dietary habits that they will make in order to enjoy healthier future.



## LAB INSTRUCTIONS

In this activity, you will view the slide show that explains the cause and effect links between chronic diseases and healthy eating and exercise habits. You will be asked to use a multi-flow map to link your goals to proposed actions and possible outcomes.

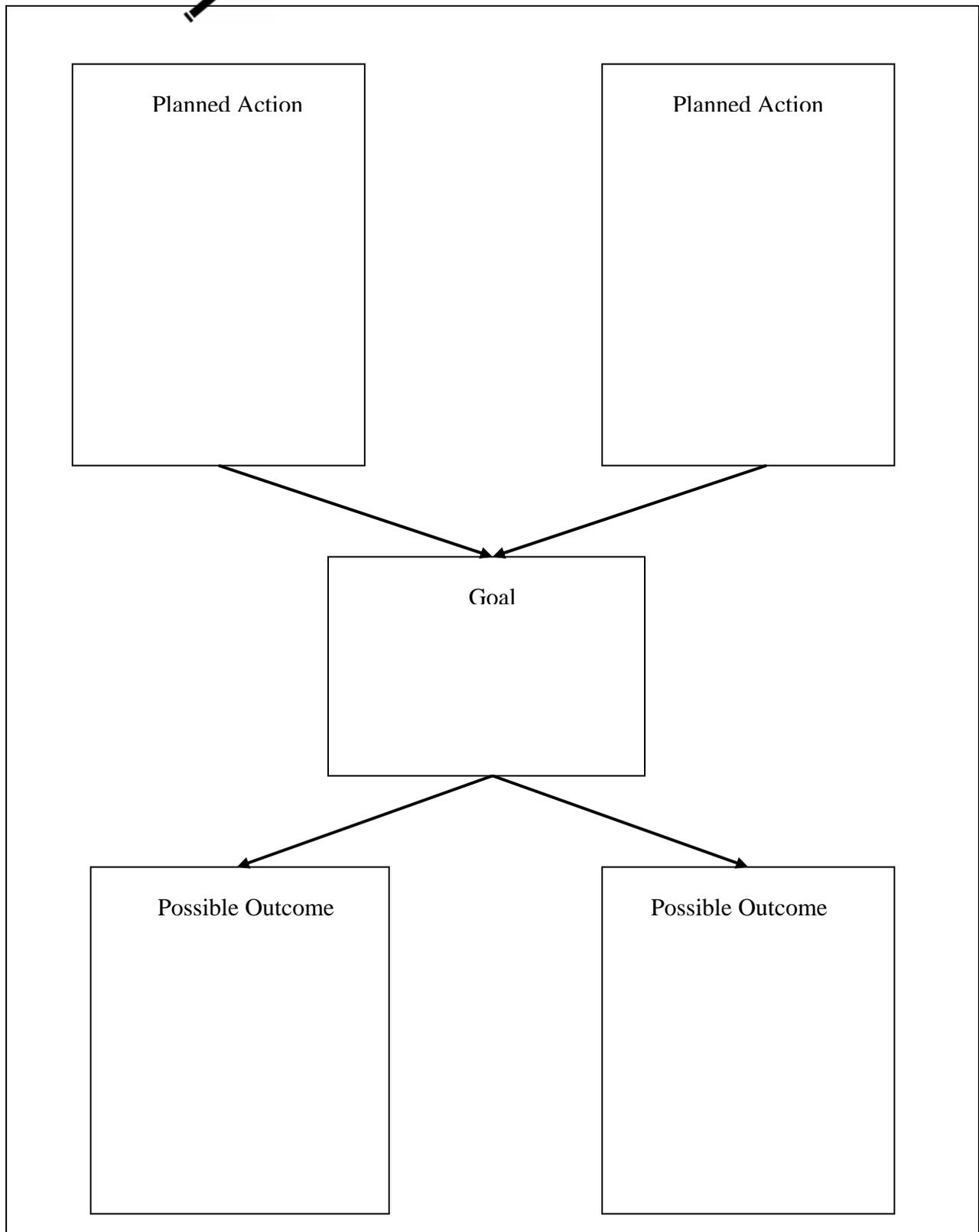
1. A multi-flow map is a simple and clear method to state a goal, tell what actions are needed to meet the goal and to predict the outcome of the actions.
2. In the center of the flow map, write something that you want to improve in the area of nutrition and fitness (This is your goal).
3. In the boxes on the top, write three things that you can do to cause you to reach your goal.
4. In the boxes on the bottom, write in three effects of reaching this goal.
5. Note the frame around the flow map. Write within the frame the experiences from the past that make you want to improve in this area.

### **Read and discuss your Key Concepts!**

What are the relationships between chronic diseases and diet and exercise?

Be sure to record what you have learned and stamp your  
*Passport to Good Health!*

# Investigate! The Future is Now



## Investigate! The Future is Now

The presentation that you just watched has a powerful message: many eating and physical activity habits can have profound effects on your health. The good news is that simple dietary changes and individualized nutrition programs can do much to improve your health. Therefore, what you learn at this workshop and how you use your new knowledge can affect your future in many ways.

The more we learn about nutrition and exercise, the more we recognize their importance in everyday life. Children need healthy diets for normal growth and development, and people of all ages can reduce their risk of chronic disease by adopting nutritious diets and engaging in regular physical activity.

Millions of Americans are affected by chronic diseases and conditions that influence their quality of life. Specific diseases and conditions linked to poor diet and lack of sufficient exercise are heart disease, stroke, Type 2 Diabetes, osteoporosis, and certain types of cancer.

Furthermore, overweight and obesity, which are risk factors for diabetes and other chronic diseases, are more common than ever before. To avoid these problems in our lives, we must commit ourselves to making significant changes in our eating habits and lifestyles. We must choose meals and snacks that are high in nutrients but reasonably low in calories, and adequate physical activities must be added to our daily plans. Then, we should enjoy much better chances of a future with long-term health and wellbeing.

Multi-flow charts are useful in visualizing causes and effects in the decision-making process.

# Investigate! MyPyramid: Inside & Out

## Standards References

### LANGUAGE ARTS GLEs

Grade 5: 8

Grade 6: 7

Grade 7: 5

Grade 8: 5

### HEALTH Benchmarks

2-M-1

3-M-1

## Materials

1. PowerPoint Presentation
2. Computer or 3-ring binder
3. MyPyramid mini-poster
4. Pencils

## Activity Overview

Participants will view a slide presentation on *MyPyramid*. Once familiar with the color codes and symbols, families will identify in which food groups various foods belong.

## Key Concepts

- *MyPyramid* is a system that promotes healthy diets and exercise. It was designed with symbols, colors and a slogan so that its guidelines can be easily understood.
- Five food groups and fats are represented by six colors
- Stairs symbolize that exercise is important.

## Procedure

Preparation: Print the Key Concepts Card and the Lab Instructions Card on heavy cardstock and place at the Explore Station along with the materials. The Power Point Presentation can be shown on a computer screen or printed and bound in a 3-ring binder for families to view. Copy, in-color if possible, one MyPyramid mini-poster for each family. Show at least slides 1 – 13.

1. View the slide presentation and take brief notes on the MyPyramid mini-poster. Pay close attention to the design of MyPyramid and note the purpose of the colors, symbols and slogan.
2. What colors symbolize each food group and fat?
3. Complete the student activity sheet.
4. Read and discuss the Key Concepts!
5. Be sure to write what you have learned and stamp your *Passport to Good Health!*

## Closure/Evaluation

After completing the activity, families read the information found under “Key Concepts” and discuss ways to modify their diets to incorporate what they have learned from MyPyramid.

# Investigate! MyPyramid: Inside & Out

## LAB INSTRUCTIONS

1. View the slide presentation and take brief notes on the *MyPyramid* handout provided.
2. Pay close attention to the design of MyPyramid and note the purpose of the colors, symbols and slogan.
3. Complete the student activity sheet.

### **Read and discuss your Key Concepts!**

What did you find out about the design of MyPyramid?  
Did your notes help you remember some of the important ideas? Does school lunch offer foods from each food group?  
Be sure to record what you have learned and stamp your  
*Passport to Good Health!*

# Investigate! MyPyramid: Inside & Out

Directions: Beside each food write the food group in which it belongs and how often the food can be eaten.

Food	Food Group	How Often this Food Can Be Eaten
Popcorn (no fat, low salt)		
Whole grain bread		
Carrot sticks		
Zucchini		
Fruit cocktail in juice		
Pear		
Cheese		
Yogurt		
Roast beef		
Egg		
Margarine		
Salad dressing		
Soft drink		

Food Groups:                    Grain Group  
    Meat & Bean Group  
    Vegetable Group  
    Fruit Group  
    Milk Group

Other Group:                    Fats

Foods can be eaten:           Often  
    Occasionally

## Investigate! MyPyramid: Inside & Out

The Dietary Guidelines for Americans developed by the U. S. Department of Agriculture describe a healthy diet as one that:

- Emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products;
- Includes lean meats, poultry, fish, beans, eggs, and nuts; and
- Is low in saturated fats, trans-fats, cholesterol, salt, and added sugars.

To make the guidelines easier to follow, MyPyramid was designed with symbols, colors and a slogan. Five food groups and fats are represented by six colors, and stairs symbolize that exercise is needed to complement wise food choices. The slogan, “Steps to a Healthier You,” emphasizes that the process of becoming healthier should be a gradual undertaking rather than a quick fix. Moreover, the “You” in the slogan stresses that the plan is meant to be personalized.

The pyramid shape shows that each food group and fats are required in different amounts. For example, the narrowest band of the pyramid shows that while fat is needed in the diet, only a small amount should be eaten. Grains, milk, and vegetables are similar in width, showing that the servings required are similar, but greater than those in fruit and the meat and bean group.

In summary, the MyPyramid system was designed to guide Americans to:

- Eat foods from all food groups in moderation.
- Eat more of some foods (whole grains, fat-free or low-fat milk products, vegetables, fruits), and less of others (foods high in saturated or trans-fats, added sugars, cholesterol salt, and alcohol).
- Choose forms of foods that limit intake of saturated or trans-fats, added sugars, cholesterol, and salt.
- Be physically active every day.

The inside of the pyramid is the actual website [MyPyramid.gov](http://MyPyramid.gov). This is where the real personalization can be found. The site is interactive; type in your age and gender, and you will receive abundant information regarding your specific nutrition and exercise needs.

# Investigate! Nutrients in a Nutshell

## Standards References

### LANGUAGE ARTS GLEs

Grade 5: 4

Grade 6: 3

Grade 7: 1

Grade 8: 1

### HEALTH Benchmarks

1-M-3

3-M-1

## Materials

1. Major Nutrients--Sources and Functions Information Page
2. Matching Activity Sheet: Matching Nutrients with Key Facts
3. Answer Key
4. Food labels from each of the food groups
5. Pencils

## Activity Overview

Participants will view charts that provide overviews of each major nutrient and complete a worksheet that requires matching nutrients with sources and benefits. Samples of foods that are major sources of the nutrients will be available for tasting.

## Key Concepts

- Nutrients are substances found in food that make your body healthy.
- Essential nutrients are proteins, carbohydrates, fats, vitamins, minerals, and water.
- Each nutrient has various functions to keep us healthy.
- Consumers must become familiar with nutrition terms to make wise food choices.

## Procedure

Preparation: Print the Key Concepts Card and the Lab Instructions Card on heavy cardstock and place at the Explore Station. Post the three information pages. Display the nutrition facts labels.

1. Study the Information Page.
2. Look at nutrition food labels and find the nutrients listed. Note that water is not included.
3. Complete the worksheet that asks you to match the nutrients with key facts.
4. Read and discuss the Key Concepts!
5. Be sure to write what you have learned and stamp your *Passport to Good Health!*

## Closure/Evaluation

After completing the activity, families read the information found under “Key Concepts” and discuss the foods they can add to their diets to insure consumption of essential nutrients and possible ways to drink more water during the day.

# Investigate! Nutrients in a Nutshell

## LAB INSTRUCTIONS

In this activity, you will view a chart that provides an overview of each major nutrient. Then you will look at food labels for the nutrients listed. Then you will complete a worksheet that requires you to match nutrients with their sources and benefits.

1. Study the information page.
2. Find the nutrients on the food labels displayed.
3. Complete the worksheet that asks you to match the nutrients with key facts.
4. Check your answers to the matching worksheet using the answer key.

### **Read and discuss your Key Concepts!**

What nutrient is not included on *MyPyramid* and the Nutrition Facts Label? What nutrients were provided in school lunch today? Be sure to record what you have learned and stamp your *Passport to Good Health!*

## Investigate! Nutrients in a Nutshell

Nutrients are substances found in food that make your body healthy. The six essential nutrients are proteins, carbohydrates, fats, vitamins, minerals, and water. *MyPyramid* is planned so that you will consume these nutrients, but it is helpful to know what they are and exactly how they work in your body to keep you healthy.

**Proteins** are used to build and repair tissue. As the building blocks of all cells of the body, proteins are an indispensable nutrient. Infants, children, teens, and pregnant women require more protein because it is essential for growth. We can also get energy from protein; however, carbohydrates should be the primary source of energy, not proteins.

**Carbohydrates** provide energy. They are classified as either simple or complex. Desserts and soft drinks contain simple sugars, such as granulated sugar, honey, and high fructose corn sweeteners. These foods sometime are called “empty calories” because they provide calories and very few other nutrients. Fruit and milk contain simple sugars as well, but they provide lots of nutrients. Simple sugars supply quick, but not long-lasting energy. Complex carbohydrates in the vegetable and grain groups contribute longer-lasting energy.

**Fats** deliver a concentrated amount of energy — more than twice the amount of proteins and carbohydrates. They are required to carry out specific functions. Fats protect and insulate your body organs, carry vitamin A and other fat soluble vitamins throughout the body, and contribute to food flavor as well as a feeling of fullness after eating.

## Investigate! Nutrients in a Nutshell

**Vitamins** regulate body functions. They do not supply your body with calories or energy but are vital in keeping you healthy. Below is a table of key vitamins, their functions and the foods in which they can be found:

Vitamin	Function	Sources
Vitamin A (beta-carotene)	<ul style="list-style-type: none"> <li>Plays an important role in vision, bone growth, reproduction, and cell division</li> <li>Helps regulate the immune system</li> </ul>	carrots, sweet potatoes, yellow-orange vegetables and dark leafy green vegetables, milk, margarine, eggs, apricots, cantaloupe, mangos, peaches
B vitamins (thiamine, riboflavin, niacin, folic acid, etc.)	<ul style="list-style-type: none"> <li>Vital to the health and maintenance of the body's nervous system</li> <li>Aids in the metabolism of both fats and proteins</li> </ul>	enriched cereals, enriched bread, fish, lean meat, liver, milk, pork, poultry, whole grain cereals, eggs
Vitamin C (ascorbic acid)	<ul style="list-style-type: none"> <li>Helps in healing wounds</li> <li>Keeps gums healthy</li> <li>Helps the body use carbohydrates, proteins, and fats</li> <li>Keeps blood vessels and joints healthy</li> </ul>	citrus fruits, berries, cherries, watermelon, tomatoes, cabbage, green vegetables, peppers, potatoes
Vitamin D (calciferol)	<ul style="list-style-type: none"> <li>Aids in the absorption of calcium, helping to form and maintain strong bones</li> </ul>	fortified milk, salmon, tuna, egg yolk

## Investigate! Nutrients in a Nutshell

**Minerals** contain no calories, or energy. There are many different minerals, and they complete many different functions in the body. Minerals usually act to build and regulate the body's tissues and organs, bones and muscles. Calcium and iron are two important minerals that are on the Nutrition Facts Label. Prominent sources of calcium are milk, cheese, yogurt, ice cream, cottage cheese, and spinach. Iron is found in red meat, spinach, eggs, enriched breads and cereals.

**Water** is an important nutrient because it helps to regulate the temperature of the body. It helps to cool and clean the organs and tissues in the body and allows nutrients to be carried throughout the body. Water contains no calories or energy value. Eight glasses of water should be ingested a day.

In summary, nutrients are chemical substances obtained from foods during digestion. They are needed to build and maintain body cells, regulate body processes, and supply energy. All nutrients are needed because of the way they work together. They complement one another, meaning that one nutrient alone, cannot do the entire job. Your diet should include a variety of foods because no single food supplies all the required nutrients.

# Investigate! Nutrients in a Nutshell

## Matching Activity

Directions: Place the letter of the matching description from the right column on the blank in front of the number of the left column.

- |     |   |   |
|-----|---|---|
| ___ | 1. Vitamin A  | A. Vitamin that plays a role in production of red blood cells and healing wounds. |
| ___ | 2. Protein  | B. Regulates body temperature   |
| ___ | 3. Yellow-orange vegetables and dark leafy green vegetables | C. A lack of this mineral may cause osteoporosis                                  |
| ___ | 4. Fats   | D. Food sources of Vitamin C  |
| ___ | 5. Calcium  | E. Sometimes called empty calories  |
| ___ | 6. Water  | F. Vitamins vital to the health and maintenance of the body's nervous system      |
| ___ | 7. Vitamin C  | G. Fats   |
| ___ | 8. Refined sugars   | H. Aids in the absorption of calcium  |
| ___ | 9. Source of Vitamin D                                      | I. Builds & repairs tissue  |
| ___ | 10. Minerals  | J. Prominent sources of calcium   |
| ___ | 11. B Vitamins  | K. Vitamin that plays an important role in vision                                 |
| ___ | 12. Protect & insulate the body                             | L. Concentrated source of energy  |
| ___ | 13. Vitamin D   | M. Calcium and iron   |
| ___ | 14. Citrus fruits   | N. Plant sources of Vitamin A   |
| ___ | 15. Milk, cheese, yogurt, cottage cheese                    | O. Sunshine and fortified milk  |

# Investigate! Nutrients in a Nutshell

## Matching Activity

Directions: Place the letter of the matching description from the right column on the blank in front of the number of the left column.

- |          |   |    |  |
|----------|---|----|--|
| <u>K</u> | 1. Vitamin A  | A. | Vitamin that plays a role in production of red blood cells and healing wounds. |
| <u>I</u> | 2. Protein  | B. | Regulates body temperature   |
| <u>N</u> | 3. Yellow-orange vegetables and dark leafy green vegetables | C. | A lack of this mineral may cause osteoporosis                                  |
| <u>L</u> | 4. Fats   | D. | Food sources of Vitamin C  |
| <u>C</u> | 5. Calcium  | E. | Sometimes called empty calories  |
| <u>B</u> | 6. Water  | F. | Vitamins vital to the health and maintenance of the body's nervous system      |
| <u>A</u> | 7. Vitamin C  | G. | Fats   |
| <u>E</u> | 8. Refined sugars   | H. | Aids in the absorption of calcium  |
| <u>O</u> | 9. Source of Vitamin D                                      | I. | Builds & repairs tissue  |
| <u>M</u> | 10. Minerals  | J. | Prominent sources of calcium   |
| <u>F</u> | 11. B Vitamins  | K. | Vitamin that plays an important role in vision                                 |
| <u>G</u> | 12. Protect & insulate the body                             | L. | Concentrated source of energy  |
| <u>H</u> | 13. Vitamin D   | M. | Calcium and iron   |
| <u>D</u> | 14. Citrus fruits   | N. | Plant sources of Vitamin A   |
| <u>J</u> | 15. Milk, cheese, yogurt, cottage cheese                    | O. | Sunshine and fortified milk  |

# Investigate! Nutrients in a Nutshell

Nutrients are substances found in food that make your body healthy.

The six essential nutrients are:

1. Proteins are used to build and repair tissue.
2. Carbohydrates provide energy. They are classified as either simple or complex.
3. Fats deliver a concentrated amount of energy — more than twice the amount of proteins and carbohydrates.
4. Vitamins regulate body functions. They do not supply your body with calories or energy but are vital in keeping you healthy.
5. Minerals contain no calories, or energy. There are many different minerals, and they complete many different functions in the body. Minerals usually act to build and regulate the body's tissues and organs, bones and muscles. Calcium and iron are two important minerals that are on the Nutrition Facts Label.
6. Water is an important nutrient because it helps to regulate the temperature of the body. It helps to cool and clean the organs and tissues in the body and allows nutrients to be carried throughout the body. Water contains no calories or energy value. Eight glasses of water should be ingested a day.

In summary, nutrients are chemical substances obtained from foods during digestion. They are needed to build and maintain body cells, regulate body processes, and supply energy. All nutrients are needed because of the way they work together. They complement one another, meaning that one nutrient alone cannot do the entire job. Your diet should include a variety of foods because no single food supplies all the required nutrients. *MyPyramid* is planned so that you will consume these nutrients in the proper amounts. Consumers must become familiar with nutrition terms to make wise food choices.