



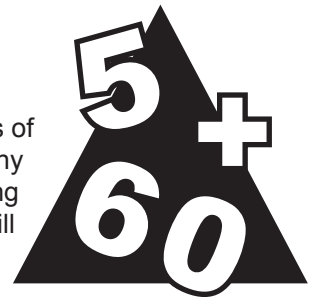
LESSON 1

The Magic Numbers

Student Learning Objectives:	National Health Education Standards:
1. Explain the benefits of healthy eating and being physically active.	• Core Concepts
2. Describe the importance of choosing a variety of ways to be physically active.	• Core Concepts

Lesson Synopsis

Pantomime things people do to stay healthy and introduce the topics of nutrition and physical activity. Review the food groups and explain the benefits of healthy eating. Explain the benefits of being physically active every day in different ways. Summarize using an example of how healthy eating and physical activity work together to keep the body healthy. Lead students in completing a worksheet that lists their favorite foods, ways to be physically active, and the benefits they will receive from healthy eating and physical activity.



Activity	Time in Minutes	Materials Needed
Introduction	5	• None
Teacher Input	15	<p>Health Education Materials</p> <ul style="list-style-type: none"> • Poster Set: “MyPlate: Healthy Food Choices,” Educational Materials Center • DVD: <i>Max’s Magical Delivery</i>, U.S. Health and Human Services, Agency for Healthcare Research and Quality (Extension Activity) • Book: <i>The Busy Body Book: A Kid’s Guide to Fitness</i>, by Lizzy Rockwell (Extension Activity) <p>Supplied by the Teacher</p> <ul style="list-style-type: none"> • Chart paper • Markers • Computer with DVD player (Extension Activity)
Application or Skill Practice	10	<p>Teacher Manual Resources</p> <ul style="list-style-type: none"> • Student Worksheet: “The Magic Numbers: 5 and 60” • Teacher Reference—Assessment: “Assessment Rubric for Skill Development: The Magic Numbers” <p>Supplied by the Teacher</p> <ul style="list-style-type: none"> • Pencils or pens • Eight-ounce glass (Suggestion)
Closure	5	<p>Teacher Manual Resources</p> <ul style="list-style-type: none"> • Family Resource Sheet: “A Healthy Combination” • Family Resource Sheet: “Bone Building Partnership” • Teacher Reference: “Family Letter: Healthy Snacks” (Extension Activity)
TOTAL	35	

Preparation

Prior to the Lesson:

- **Decide if you want to assess** student skill development. A rubric is provided for you to use at the end of this lesson, “Assessment Rubric for Skill Development: The Magic Numbers.”

For Application or Skill Practice:

- **Duplicate** the student worksheet, “The Magic Numbers: 5 and 60,” for each student.

For Closure:

- **Select** the family resource sheet you want to send home. You may choose to send both. **Duplicate** the family resource sheet(s), “A Healthy Combination” and/or “Bone Building Partnership,” for students to take home.
- **Decide** how to form small groups with three students in each group.
- **Personalize and duplicate** the teacher reference, “Family Letter: Healthy Snacks,” for distribution to each student. The letter requests help providing healthy snacks and permission for students to participate in the Extension Activity in Lesson 2. (Extension Activity)





Time-Saver Tip: Lead the Closure discussion in the large group only and omit the small group sharing.

LESSON PROCEDURE





Introduction: Identify healthy eating and physical activity as important habits for staying healthy.

Approximately 5 minutes

Instructional Steps	Script & Detailed Directions	Extensions & Suggestions
List daily habits that promote health.	<p><i>People of all ages do many things every day to stay healthy. Think of something you do to stay healthy.</i></p> <p>Who would like to pantomime one thing you do to stay healthy? We will try to guess what you are doing.</p> <p>Call on students to pantomime different health behaviors as the class tries to guess.</p> <p>Answers: eat nutritious foods, brush teeth, wash hands, rest, brush hair, be physically active, etc.</p> <p>Record answers on the board.</p>	 <p>If students need help thinking of ideas, have them think about what they do when they get ready for school, when they are at school, before going to bed, and so on.</p>
Introduce the unit and state the focus of the lesson.	<p><i>We are beginning a unit on the importance of eating the right foods and being physically active.</i></p> <p>Circle “eat nutritious foods” and “be physically active” from the choices on the board.</p> <p><i>Today we will learn how eating nutritious foods and being physically active helps us to be as strong and healthy as we can be.</i></p>	 <p>Arrange for a librarian or volunteer to read books about food and physical activity.</p>

Teacher Input: Explain the benefits of eating healthy and being physically active. Describe the importance of choosing a variety of ways to be physically active.

Approximately 15 minutes

Instructional Steps	Script & Detailed Directions	Extensions & Suggestions
<p>Write a large “5” on the board.</p> <p>Review the names of the food groups. Display the empty plate and use the food group puzzle pieces from the poster set, “MyPlate: Healthy Food Choices,” to create the plate and glass.</p> <p>Review the benefits of eating foods from all of the food groups each day.</p> <p>Review each food group’s slogan using the rectangular food group pieces from the poster set, “MyPlate: Healthy Food Choices.”</p>	<p><i>This is a magic “5.” It represents something we need to remember when we choose foods each day. Who can guess what the magic “5” represents?</i></p> <p>Answer: the food groups</p> <p><i>Raise your hand if you remember the name of one of the food groups.</i></p> <p>Allow students to respond as you place the food group puzzle pieces together on a bulletin board.</p> <ul style="list-style-type: none"> • Vegetables • Fruits • Grains • Protein Foods • Dairy <p><i>How will eating foods from the magic “5” every day help you?</i></p> <p>Answers:</p> <ul style="list-style-type: none"> • Eating nutritious foods helps a person stay healthy. • Each food group gives a person’s body different things needed for growth and to work well, such as vitamins, minerals, carbohydrates, protein and fat. These are referred to as building blocks or nutrients. • Eating healthy foods gives a person the energy to grow, play, learn, and have fun. <p>Record students’ ideas on the board.</p> <p>State each food group’s slogan as you post the rectangular food group pieces, such as “Vary your veggies.”</p>	 <p>The food groups are taught in the first and second grades of <i>Michigan Model</i>[®]. This should be a review.</p>  <p>Nutrients (minerals, vitamins, carbohydrates, fat, protein, and water) are covered in the fifth grade of the <i>Michigan Model</i>[®].</p>  <p>Have the DVD, <i>Max’s Magical Delivery</i>, available for students to use one at a time. The interactive segments on the DVD reinforce healthy eating and being physically active.</p>  <p>For more nutrition information, go online to read the “2010 Dietary Guidelines for Americans” and visit the MyPlate website.</p> <p style="text-align: center;">www.health.gov/dietaryguidelines/</p> <p style="text-align: center;">www.ChooseMyPlate.gov</p>
<p>List activities students do during a typical day.</p>	<p><i>What are some things you enjoy doing?</i></p> <p>Gather a list of activities that range from sedentary to active, such as watching television, riding a bike, walking, playing a sport, playing video games, climbing stairs, using the computer, sitting at a desk doing homework.</p>	

Write a large “60” on the board.

Post the rectangular poster on physical activity from the poster set, “MyPlate: Healthy Food Choices.”

Review the benefits of being physically active every day.

Emphasize the importance of different types of physical activity.

Record their ideas on chart paper or an area of the board that you can avoid erasing for a few days.

This is another magic number. Who can guess what it represents?

Answer: It is the number of minutes a child or teen needs to be physically active each day.

The Dietary Guidelines from our government recommend 60 minutes of physical activity each day for people your age. When a person is physically active, she or he is moving his or her body.

Look at our list of things we enjoy doing. Which ones do you think involve being physically active?

Call on several students to suggest ideas.

Circle the physically active ideas.

How do you think being physically active helps you stay healthy?

- Answers: Physical activity:
- keeps muscles strong.
 - builds strong bones.
 - helps a person feel good.
 - helps a person avoid illness.

Record students’ ideas on the board.

Just as different foods give our bodies different things they need to grow and move, different types of physical activity are important to include in our 60 minutes of activity.

Some physical activities keep our muscles flexible. These are activities that involve stretching, such as bending over to pick up a ball or reaching for the top rung of a ladder.

Some physical activities build muscle strength, such as jumping, lifting heavy objects, and doing push-ups.

Other physical activities help you stay active for longer periods of time. We call this “endurance.” Running, dancing, and skipping are examples of this type of physical activity.



Save the list of activities students enjoy. You will need this list for Lessons 3 and 4 in this unit.



Inform the physical education instructor about the magic “60” so he or she can also emphasize the concept using similar terms.



Read the book, *The Busy Body Book: A Kid’s Guide to Fitness*.





Engage students in a “Brain Break” activity. “Brain Break” activities can be found online at the Educational Material Center website.

www.emc.cmich.edu/BrainBreaks/default.htm






As you describe each type of physical activity, have students do the action briefly.

<p>Summarize and emphasize how healthy eating and physical activity are both important to maintain health.</p>	<p><i>Remember the magic numbers: 5 and 60. Healthy eating and being physically active work together to help keep a person healthy.</i></p> <p><i>For example, you need certain foods and activities to build strong bones. The mineral calcium and vitamin D are important to build strong bones. Calcium is found in milk, cheese, broccoli, collard greens, yogurt, bok choy, and juices with calcium added. Vitamin D is found in egg yolks and tuna. It is also found in milk, juices or cereals that have vitamin D added.</i></p> <p><i>We also get vitamin D from the sun. How much vitamin D we get from the sun depends on where we are, how long we are outside, and our use of sunscreen.</i></p> <p><i>Getting regular activity where a person has to carry his or her own weight is equally important for building strong bones. For example, walking, jogging, jumping rope, and playing basketball are all good bone-building activities.</i></p> <p>Raise your hand if you have heard of the disease osteoporosis. <i>This is a disease some older people get. If a person has this disease, his or her bones get weak and break easily.</i></p> <p><i>By eating the magic “5” and being physically active “60” minutes every day NOW and as you get older, you can build strong bones which help to prevent you from getting this disease later in life. Eating healthfully and being physically active cannot be “put off” for later. Your bones will get as dense as they ever will be by the time you are in your 20’s.</i></p>	 <p>For more information, read the <i>Healthy Kids Healthy Weight</i> fact sheets on the Educational Materials Center website.</p> <p>www.emc.cmich.edu/healthyweight</p>  <p>Use this opportunity to help students understand how to protect themselves from the sun whenever they are outside. “Slip” on a long-sleeved shirt and pants. “Slop” on sunscreen with a SPF of 15 or higher. Young children may need adult help. “Slap” on a hat with a wide brim. Sunglasses help to protect the eyes. Visit the American Cancer Society’s or the Education Materials Center’s website for sun safety information.</p> <p>www.cancer.org</p> <p>www.emc.cmich.edu</p>
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Application or Skill Practice: Describe personal preferences for healthy foods and physical activities.

Approximately 10 minutes

Instructional Steps	Script & Detailed Directions	Extensions & Suggestions
<p>Distribute a student worksheet, “The Magic Numbers: 5 and 60,” to each student. Display the poster from the poster set, “MyPlate: Healthy Food Choices.”</p> 	<p><i>On your worksheet, label the five food groups on the picture displaying the place setting. Identify two foods you like for each food group.</i></p> <p><i>Then, list three activities you enjoy doing to keep your body moving.</i></p> <p><i>Write one or two sentences explaining how you will benefit by eating healthfully and being physically active this week.</i></p>	 <p>Use the rubric provided at the end of the lesson if you want to assess students’ skill development.</p> 

If necessary, refer the students to the lists of benefits on the board.



Visit the school food service or review school lunch menus to highlight how foods from all of the food groups are combined in a meal.



Encourage your school to adopt, and comply with, a healthy nutrition policy.



Ask your food service staff to prepare a sample plate to illustrate how to fill a plate with all of the food groups in the correct proportions. Suggest that this plate be displayed during every meal served in the cafeteria.

Remind students of the need for rest, sleep, and hydration.

There are three more things our bodies need in addition to healthy foods and physical activity. Our bodies need water. Drink several glasses (eight ounces each) of water every day. They also need rest and sleep, especially after being physically active.



Encourage students to bring water bottles to school. Allow students to keep water at their desks all day.






Hold up an eight-ounce glass to show the size.



Juices, other beverages, and some foods contain water and contribute to a person's total water consumption. However, plain water should be chosen frequently.

Closure: Summarize the importance of eating healthy foods and being physically active by sharing personal preferences and benefits.

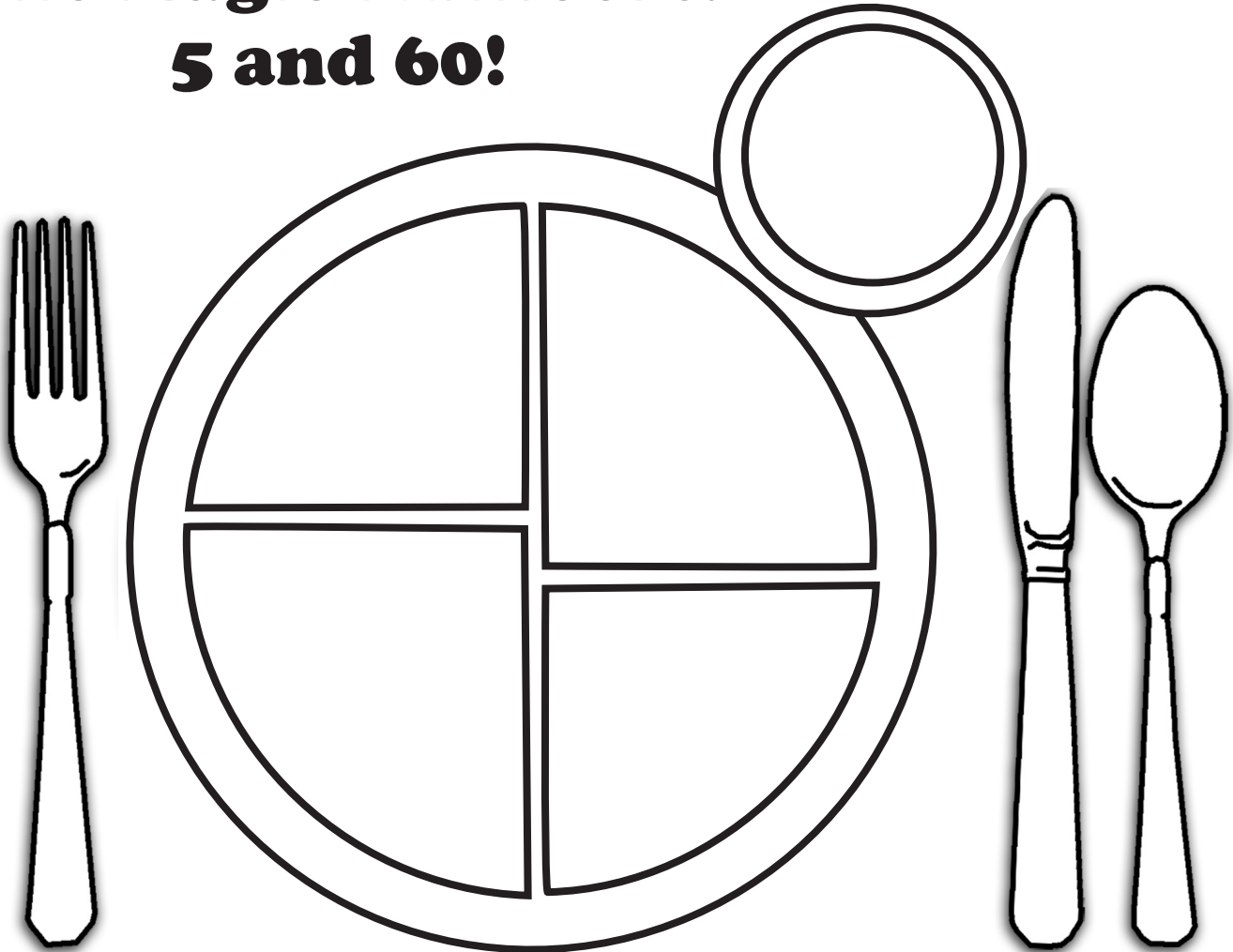
Approximately 5 minutes

Instructional Steps	Script & Detailed Directions	Extensions & Suggestions
<p>Have students share their food and activity preferences in small groups.</p> <p>Share with the class the information on their worksheet.</p>	<p>Form small groups of three and have students share their food and activity preferences from their worksheets and their explanations of how they will benefit from eating healthy foods and being physically active.</p> <p><i>Who would like to share with the class one favorite food or activity?</i></p> <p>Call on several students to share their ideas.</p> <p>Have other students stand if they share the same favorite food or activity.</p> <p><i>Who would like to tell the class why it is important to them to eat healthy foods and be physically active?</i></p>	 <p>If time is limited, conduct the large group sharing only.</p>
<p>Distribute the family resource sheet(s), “A Healthy Combination” and/ or “Bone Building Partnership.”</p> 	<p><i>Be sure to share the ideas on your worksheet and this information with your families tonight so they will know how important it is to eat nutritious foods and be physically active.</i></p>	<p>Distribute the teacher reference, “Family Letter: Healthy Snacks,” if you plan on conducting this Extension Activity in Lesson 2 of this unit.</p> 
<p>Introduce the next health lesson.</p>	<p><i>In our next health lesson, we’ll identify one reason we choose certain foods and why we sometimes eat when we aren’t hungry.</i></p>	





The Magic Numbers: 5 and 60!



Three activities I enjoy doing to keep my body moving are:

1. _____

2. _____

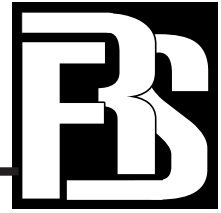
3. _____

I plan to eat healthy foods and be active this week. I will benefit in these ways:

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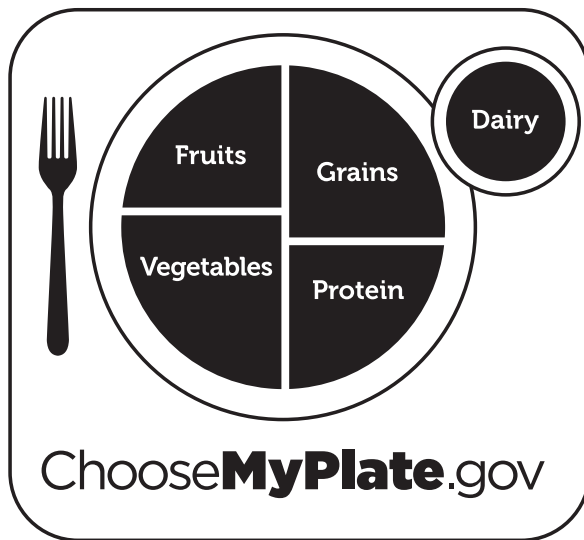
A Healthy Combination: Eat Foods From the 5 Food Groups + Get 60 Minutes of Physical Activity

FAMILY
RESOURCE
SHEET



The five food groups give us a guide to follow when picking foods to eat. Add healthy eating to physical activity and you have taken a big step toward a healthy body. You will feel good and have energy to do what you enjoy, too!

Compare Your Family's Eating Habits With the U.S. Dietary Guidelines!



To help people stay healthy, our government developed the "Dietary Guidelines for Americans, 2010." See a copy online or visit the MyPlate website for nutrition information based on the Dietary Guidelines.

www.healthierus.gov/dietaryguidelines
www.ChooseMyPlate.gov

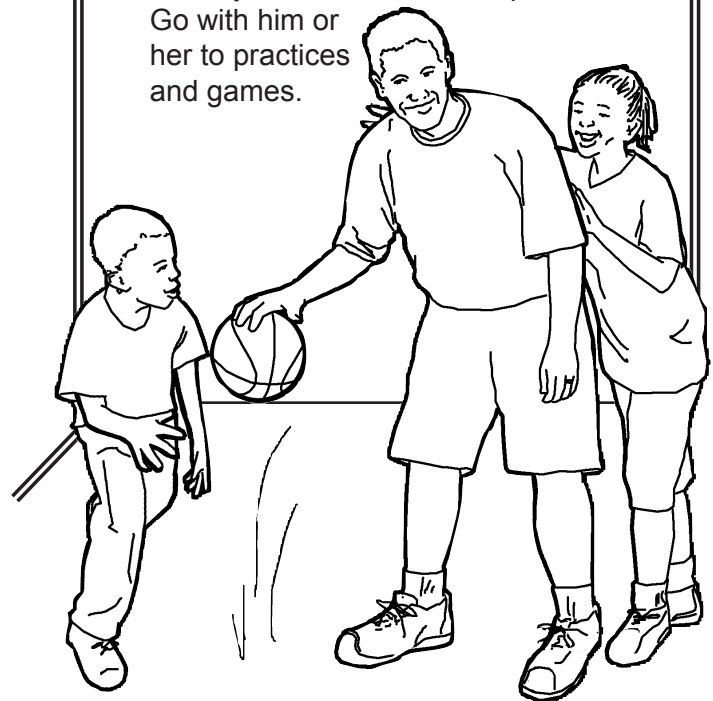
Have fun as a family and learn more about healthy eating. Order the free DVD, *Max's Magical Delivery*. Play the games together!

U.S. Health and Human Services
Agency for Healthcare Research and Quality
Publications Clearinghouse: 1-800-358-9295
Publication Number: 04-0088-DVD

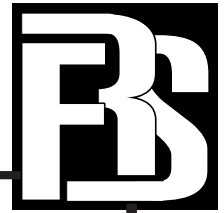
Be Physically Active As a Family!

The Centers for Disease Control and Prevention recommends that children and teens get 60 minutes of physical activity every day. Adults should get 2 1/2 hours of moderate physical activity weekly, or 1 1/4 hours of vigorous physical activity weekly. Try these ideas:

- Walk your child to school.
- Park a little distance away from the grocery store or mall where you plan to shop. Walk or run to the door.
- Use the stairs instead of the elevator.
- Teach your child your favorite active game.
- Take a brisk walk with your family.
- Take movement breaks during television commercials or while doing homework or playing computer games.
- Play a sport together, such as basketball or in-line skating.
- Enroll your child in a team sport. Go with him or her to practices and games.

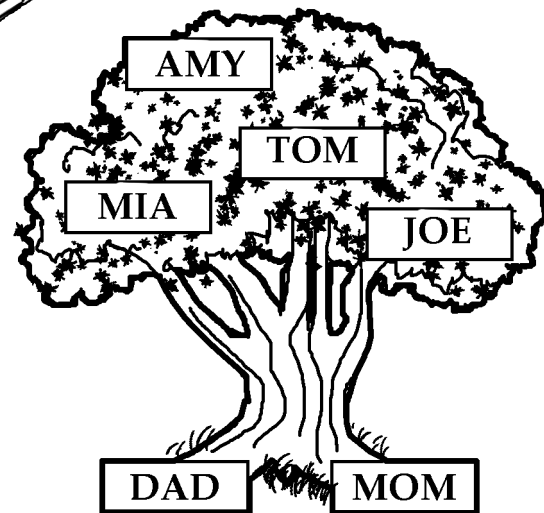
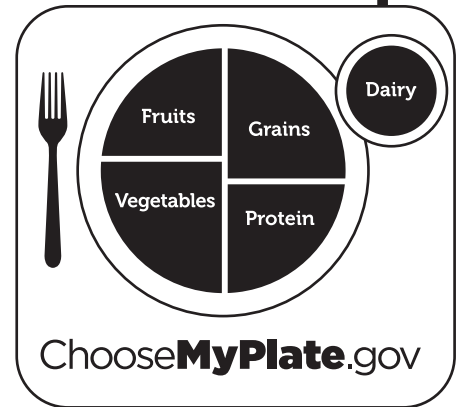
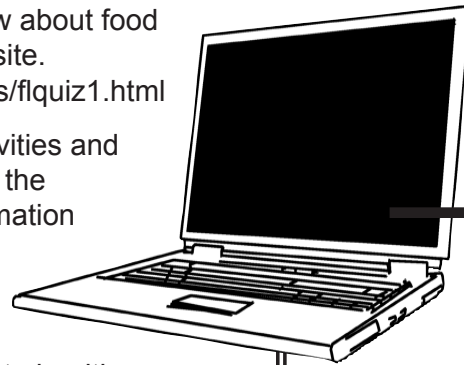


Use the Internet to Find More Resources



Here are more resources families can use to make smart food choices:

- Learn about the food groups and how much of each group to eat at the MyPlate website. It also has a section for young people. www.ChooseMyPlate.gov
- Get ideas at the USDA Team Nutrition website. www.fns.usda.gov/tn/
- Learn about health at the Federal Citizen Information Center, First Gov for Kids website. It has information for children on a variety of topics, including health. www.kids.gov/
- Test how much you know about food labels at the USDA website. www.cfsan.fda.gov/~dms/flquiz1.html
- Participate in health activities and learn new information at the International Food Information Council website. www.Kidnetic.com
- Learn what families and schools can do to promote healthy eating habits for children. Read *Healthy Kids Healthy Weight: Tips for Families With Kids of All Shapes and Sizes*. www.mihealthtools.org/schools or www.emc.cmich.edu/healthyweight
- Get involved in the Michigan Action for Healthy Kids Coalition. Click on state teams. Go to Michigan's homepage to be added to the mailing list. www.actionforhealthykids.com
- Visit the Produce for Better Health Foundation website for information and activities. www.fruitsandveggiesmorematters.org



If your family has a history of chronic disease, such as heart disease or diabetes, physical activity and good nutrition are very important in preventing these diseases for your children.

- Find out more about family health history and how to record it. Visit the U.S. Department of Health and Human Services website. www.hhs.gov/familyhistory

Looking for Books or Information?

There are lots of resources in the Family Corner of the Educational Materials Center website at www.emc.cmich.edu/family. Research children's books or a health topic of interest to you. Take a look!

Bone Building Partnership



Now is the time for your child to build strong bones. Our bones become larger, heavier, and denser when we are children and teens. Eighty-five percent of adult bone mass is acquired by age 18 in girls and age 20 in boys. We reach our maximum bone strength in our 20's. Help your child build strong bones NOW to avoid osteoporosis later in life. To build strong bones, we need three things:

- calcium
- vitamin D
- weight-bearing physical activity

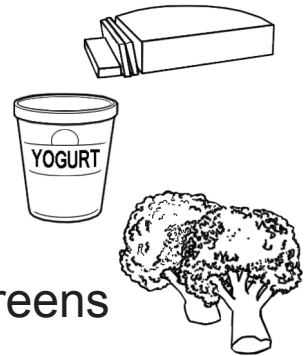
Calcium: An Essential Mineral for Strong Bones

Where do we get calcium?

- Dairy products, such as milk, cheese, and yogurt, are an important source of calcium. Low-fat dairy drinks and foods provide as much, and sometimes more, calcium than higher fat options.
- Dark green leafy vegetables, such as broccoli, kale, collard greens, and bok choy, provide non-dairy sources.
- Fish with bones, such as sardines and salmon, and almonds are good sources.
- Foods with calcium added, such as juices, bread, soy and rice drinks, and cereal, are also available. They will be labeled as "enriched with calcium" or "fortified with calcium."
- Check the Nutrition Facts food label on the food package if you are unsure.

Calcium Sources

- Milk
- Cheese
- Yogurt
- Broccoli
- Kale
- Collard Greens
- Bok Choy
- Fish with bones, such as sardines or salmon
- Almonds
- Calcium Enriched Juice
- Calcium Fortified Cereal



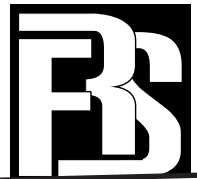
Vitamin D: Helps the Body Absorb Calcium

Where do we get vitamin D?

- The skin produces vitamin D when it is exposed to sunlight. How much vitamin D is produced depends on where you are, how long you are outside, and your use of sunscreen.
- Drinks or foods that have vitamin D added are another way to get this vitamin. These foods will usually be labeled as "fortified or enriched with vitamin D." Milk and many cereals have vitamin D added.
- Vitamin D is also found in egg yolks and oily fish, such as tuna.

Bone loss can begin when a person is in his or her 30's. Both women and men can suffer from osteoporosis.

Physical Activity



What kinds of physical activities build bones?

Weight-bearing activities are the best type of exercise for building strong bones. Weight-bearing activities require a person to carry his or her full weight. Gymnastics, soccer, figure skating, weight lifting, walking, jogging, dancing, in-line skating, tennis, jumping rope, and volleyball are examples of bone-building activities. They help other parts of our body, too!

Go on a Treasure Hunt!

Everyone likes to hunt for treasures. You will find these treasures right in your own home! The prize for finding the treasures is **STRONG BONES!**

Activity 1: Hunting for Calcium

Ask each family member to guess what foods or drinks are in the house that contain calcium. Write down each person's ideas. Then, search to see who guessed the most calcium-rich "treasures." Check the Nutrition Facts food label on the food package to be sure.

Activity 2: Searching for Vitamin D

See how many vitamin D-rich foods and drinks you can find at home. Place the "treasures" on a counter. Check the "treasures" to see if they provide both calcium AND vitamin D.

Activity 3: Creating Treasures

Use the foods and drinks from Activities 1 and 2 to create new ways to get calcium and vitamin D in your family's diet.

If you didn't find very many calcium- or vitamin D-rich foods and beverages, ask your child to go with you to the store to find other foods and beverages that will help to build strong bones.

Activity 4: Moving Treasures

Ask each family member to make a list of physical activities he or she likes to do. Draw a bone next to those activities that involve a person carrying his or her full weight. These activities build strong bones. For example, running, playing badminton, dancing, and jumping rope are good bone-building activities.

Draw a sun next to the activities that can be done outside. These activities can help a person get vitamin D, as well as physical activity...a double treasure!

Find one or two activities you can do together as a family. Schedule a time to be physically active together!

Activity 5: Try These Calcium-Rich Treasures

- Sprinkle 1/4 cup shredded or sliced low-fat mozzarella cheese on top of a split bagel or English muffin. Microwave or heat in a toaster oven until melted.
- Melt one slice of low-fat cheese between two whole grain toaster waffles in the microwave or toaster oven.
- Mix one can of tuna with three big spoonfuls of plain, low-fat yogurt and 12 chopped grapes. Spread on each half of an English muffin. Top with a slice of low-fat cheese. Place in a toaster oven or microwave until the cheese melts.
- Mix two spoonfuls of your favorite cereal and one spoonful of raisins into a container of low-fat vanilla yogurt.
- In a blender, place 2 1/2 cups of plain or vanilla low-fat yogurt, two bananas, and 2/3 cup of frozen orange juice concentrate. Process this mixture until smooth. Divide into cups. Eat it like a smoothie or put a popsicle stick in it and freeze.
- Place popcorn into a baking pan. Sprinkle with cheese. Mix with a fork. Heat the popcorn in the oven at 350 degrees for five to eight minutes or until the cheese is melted.
- Spread two spoonfuls of salsa on a corn tortilla. Top with shredded low-fat cheese. Place in a toaster oven or microwave and heat until the cheese melts.
- Mix one can of tomato soup with one can low-fat milk and heat. Pour in a mug and sprinkle with Parmesan cheese.



Assessment Rubric for Skill Development: The Magic Numbers

The following rubric can be used for assessing student skill development. The student has demonstrated the following elements of this skill through role play, written assignments, or classroom activities.

Elements in the Lesson

- Label the plate and glass with the five food groups.
- Name 2 favorite foods for each of the food groups.
- Name 3 favorite physical activities.
- Write 1 or 2 sentences about benefits of eating healthfully and being physically active.

1	2	3	4	Comments
Few or none of the elements are included. Some are unclear, and there are inaccuracies.	Most of the elements are included. Some may be unclear, and there may be some inaccuracies.	All of the elements are included clearly and accurately.	All of the elements are included clearly and accurately. Numerous examples and benefits are provided.	