LESSON 1—DAY 1: FOOD-GROUP EXPERTS

Overview of Lesson

In this lesson, students are introduced to USDA's food guidance system and become more familiar with it by becoming "experts" about one of the five food groups. The food guidance system emphasizes the major impact that small changes in food and physical-activity choices can make on overall health. This system blends consuming adequate amounts of nutrients with balancing food intake of fat and calories. More conscientious control of balancing food intake with energy expenditure will help promote healthier weights. To get students excited about their own options for class presentations, the Lesson 1—Day 1: *Food-Group Experts* Video shows the five students they met in the Pre-Assessment, doing the same assignment—each teaching their classmates, in a unique way, about an assigned food group. The video, therefore, serves not only to provide nutritional content, but also to model examples of creative and unique student presentation methods.

Nutrition Facts

- The five food groups are:
  - Dairy
  - Vegetables
  - Fruits
  - Grains
  - Protein
- Foods within a given food group contain significant amounts of the same main nutrient.
  - Most foods in a given food group can be counted on to provide that nutrient—they are roughly equivalent in terms of their nutritional benefit and can be exchanged one for the other.
  - For example, milk, yogurt and cheese (all in the Dairy group) contain significant amounts of calcium, which is needed for healthy bones.
  - However, there are differences in other nutrients that specific foods may contain. Therefore, eating a variety of foods within a food group is desirable.
- "Extra" foods have little or no nutritional value; there are no main nutrients associated with "extra" foods.

Food Group	Main Nutrient	Health Benefits
Dairy Milk, Yogurt, Cheese	**Calcium**	**Strong bones and teeth**
Vegetables	**Vitamin A**	**Healthy skin and eyes**
Fruits	**Vitamin C**	**Healing of bodies**
Grains Breads, Cereals, Pasta	**B-vitamins**	**Energy**
Protein Meat, Beans, Nuts	**Protein**	**Strong muscles**

- The recommended daily amount for each food group is:
  - Dairy—3 servings
  - Vegetables—3 servings
  - Fruits—2 servings
  - Grains—6 servings
  - Protein—2 servings

Student Objectives

1. Identify the five food groups plus "extra" foods and classify individual foods into the correct food group.
2. Identify the main nutrient for each food group.
3. Explain the body function that each main nutrient supports.
4. Identify the amount needed from each food group needed daily.
5. Choose the right serving size for foods representing all five food groups.

Level of Cognition

Objective 1: Knowledge
Objective 2: Knowledge
Objective 3: Comprehension
Objective 4: Knowledge
Objective 5: Application

Materials

Student Workbooks, Pages 4, 12 – 13, 24 – 27

Exercise Your Options DVD, Lesson 1—Day 1: *Food-Group Experts* Video

PowerPoint Presentation

Additonal resources available on your login page at **HealthyEating.org.**

Preparation

1. Familiarize yourself with the food groups and the foods that are classified into them.
2. Review the kinds of foods depicted as "extras."
3. Review main nutrients and their functions on the top of each food list on Pages 12 – 13 of the Student Workbook.
4. Gather materials.
5. Set up PowerPoint presentation.

Length of Lesson: 45 – 50 minutes

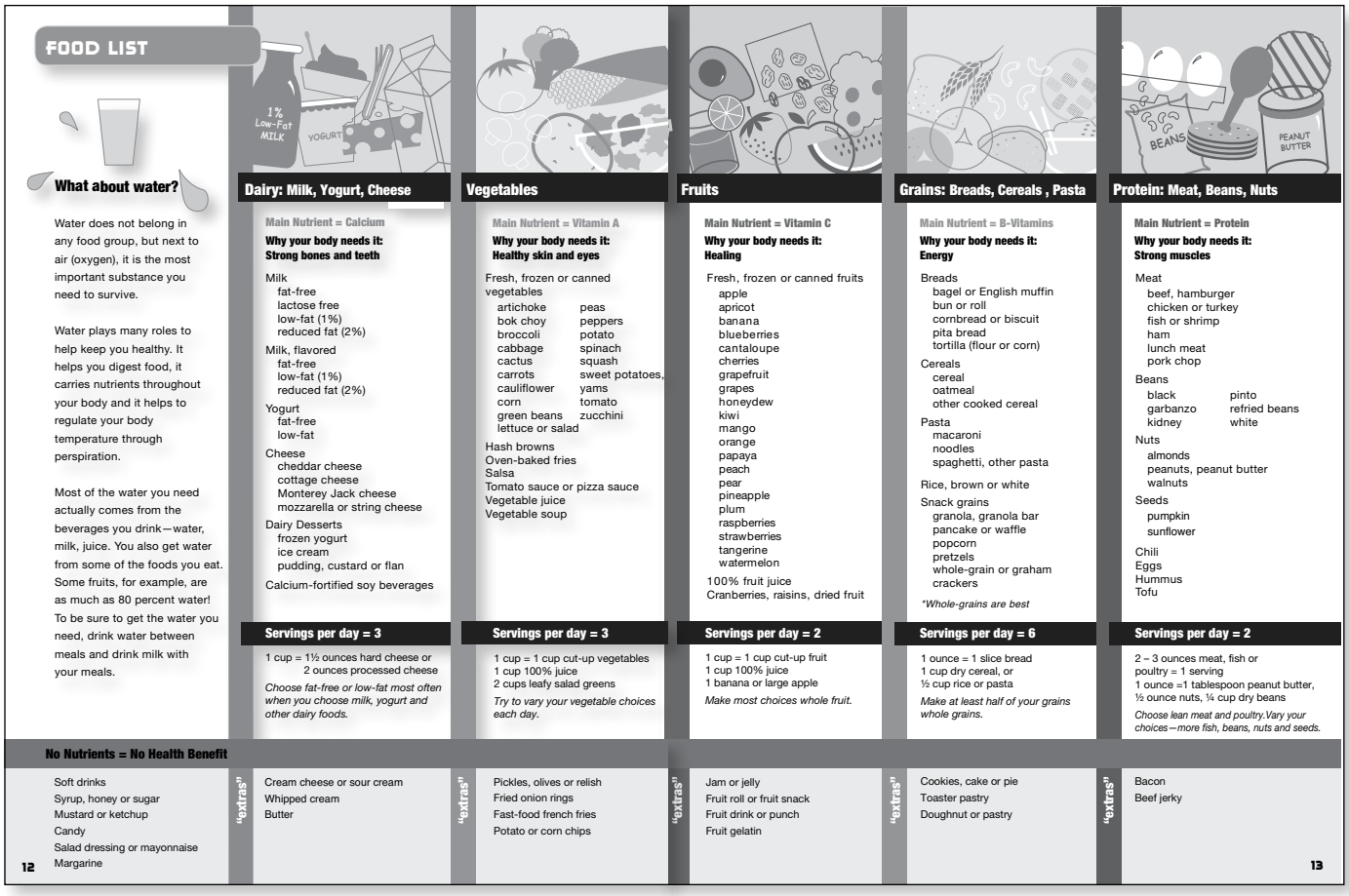
Anticipatory Set

1. Introduce the lesson.

- **Utilize** the PowerPoint presentation to introduce the program.
- **Tell** students that they are going to take a closer look at the major food groups and at a system to help them organize their options about the foods they eat.
- **Point out** the food-group chart (refer students to Pages 12 – 13 in their workbook) and explain that the chart contains foods from the five major food groups:
  - **Dairy**
  - **Vegetables**
  - **Fruits**
  - **Grains**
  - **Protein**

- **Point out** that "extra" foods are those that do not belong in any of the food groups, generally because of excessive amounts of fat and/or sugar. The food-grouping system outlines what amounts of foods from each food group are needed every day (for more information, refer to More for Teachers on the DVD, or your login page at **HealthyEating.org**).

- **Tell** students that to learn more about each of the food groups and about the amount of food we need to eat each day, they are going to become experts about one of the food groups and then teach the rest of the class. They will use the Lesson 1—Day 1: *Food-Group Experts* Video and resources in their Student Workbooks to conduct their research.



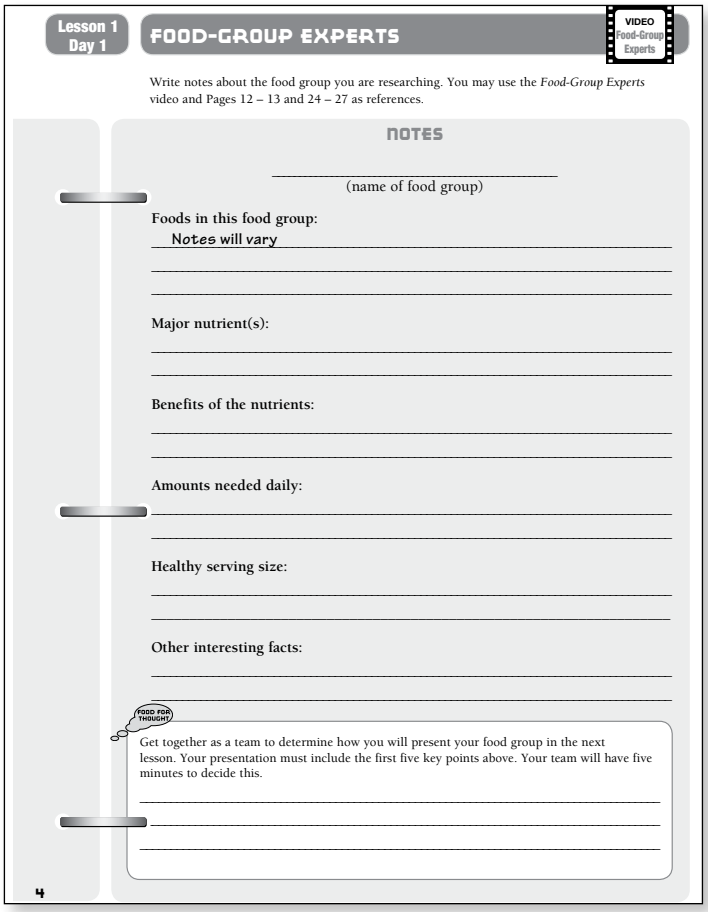
Step-by-Step Procedures With Guided Practice

1. **Divide students into six groups**—one for each food group plus "extras." Each group will work together to research their assigned group and then teach the class what they've learned.

2. **Tell** students to have their workbooks and pencils with them as they watch the Lesson 1—Day 1: *Food-Group Experts* video, so they can take notes on Page 4. (Each student should take his/her own notes in his/her own workbook, only about the food group he or she has been assigned. They will take notes about the other food groups in the next part of the lesson.)

3. **Have students watch the Lesson 1—Day 1: *Food-Group Experts* video.**

4. **Discuss the Lesson 1: *Food-Group Experts* video.**
   - **Ask** students to summarize aloud the video's main plot and then summarize the main nutrition concepts dramatized by the students and addressed by the Expert.



Lesson 1 Day 1

FOOD-GROUP EXPERTS

VIDEO Food-Group Experts

Write notes about the food group you are researching. You may use the *Food-Group Experts* video and Pages 12 – 13 and 24 – 27 as references.

NOTES

_____
(name of food group)

Foods in this food group:
Notes will vary

Major nutrient(s):

Benefits of the nutrients:

Amounts needed daily:

Healthy serving size:

Other interesting facts:

FOOD FOR THOUGHT

Get together as a team to determine how you will present your food group in the next lesson. Your presentation must include the first five key points above. Your team will have five minutes to decide this.

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Review with students.

- The following examples are meant to give students ideas on ways they can create their own presentation, not to be followed in its entirety.

Lesson 1—Day 1: *Food-Group Experts* Video Summary

Plot: *Five students make creative class presentations about the food groups.*

- **Mike:** Kids should eat 5½ to 6 ounces each day from the Protein food group, which includes protein-filled foods such as beef, chicken, fish, pork, eggs, beans and nuts.
- **Drew:** Dairy includes milk and foods made from milk, like cheese and yogurt. We need to store as much calcium as we can between the ages of 10 and 20 to keep bones strong and to prevent osteoporosis.
- **Megan:** Vegetables, whether canned, dried or frozen, provide our bodies' main source of vitamin A, which helps keep eyes and skin healthy. Other nutrients found in vegetables are also key to good health.
- **Gabe:** Kids are supposed to eat 2 cups daily of foods from the Fruits group, which provide vitamin C to help bodies repair cells and that work with iron (provided by foods from the Protein group). Some fruits also provide vitamin A and fiber.
- **Sarah:** Foods in the Grains food group, including breads, cereals, pasta and rice, provide complex carbohydrates, which provide our bodies with an important source of B-vitamins for energy.

The **Expert** discusses "extras" and serving sizes:

- "Extras" are foods that don't fit into the five food groups because they are higher in sugar or fat and/or don't contain important nutrients.
- "Extras" can be part of healthy food choices as long as they're not eaten in excess or not eaten instead of food-group foods.
- We should eat regular-sized, healthy servings instead of jumbo-sized servings.
- We can use hand symbols to help us recognize how much food is contained in a healthy serving size.

5. **Discuss serving sizes using the Healthy Serving Sizes chart on Page 11 in workbook.**
   - **Explain** to students that it is convenient to use hand symbols to approximate serving sizes. For example, the palm of your hand approximates the appropriate serving size for a piece of meat. For the recommended number of daily servings for each food group, see Pages 12 – 13 in their workbook. ***Note:*** *There is not a hand-symbol equivalent for every food students many choose. The examples used are simply to provide guidance.*

6. **Have students become "Food-Group Experts" (Page 4).**
   - Note that the video showed only a very small amount of information about each food group and "extras." Students must now continue to research their assigned food group so they can teach the rest of the class. Each group's presentation must include five key points:
     – Examples of foods in the food group
     – The major nutrient(s) of foods in the group
     – The major health benefit(s) of the nutrient(s)
     – Recommended amount to be eaten daily
     – Healthy serving size
     – Other interesting facts

Resources **HEALTHY SERVING SIZES**

FOOD	SYMBOL	COMPARISON	SERVING SIZE
Dairy: Milk, Yogurt, Cheese			
Cheese (string cheese)		Pointer finger	1½ ounces
Milk and yogurt (glass of milk)		One fist	1 cup
Vegetables			
Cooked carrots		One fist	1 cup
Salad (bowl of salad)		Two fists	2 cups
Fruits			
Apple		One fist	1 medium
Canned peaches		One fist	1 cup
Grains: Breads, Cereals, Pasta			
Dry cereal (bowl of cereal)		One fist	1 cup
Noodles, rice, oatmeal (bowl of noodles)		Handful	½ cup
Slice of whole wheat bread		Flat hand	1 slice
Protein: Meat, Beans, Nuts			
Chicken, beef, fish, pork (chicken breast)		Palm	3 ounces
Peanut butter (spoon of peanut butter)		Thumb	1 tablespoon

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7. **Tell** students that each research group should combine their individual notes—started on Page 4 while watching the video—and then continue researching more about their assigned food group on Pages 24 – 27 in their workbooks. Students may also wish to refer to the food lists on Pages 12 – 13.
   - Students can find additional information on Functional Foods at the Dairy Council website: **HealthyEating.org**. In addition, for students with the Dairy group, refer them to **HealthyEating.org/Milk-Dairy/** for additional information.

Check for Understanding

1. **Explain** to students that becoming an "Expert" doesn't happen overnight; practice makes perfect.

2. **Ask** students to get into two teams.

3. **Explain** to students that they are going to play "Classroom Feud." A question will be asked and they have to come up with the correct five answers as a team to win points.

4. First question: What are the five food groups?

5. Second question: What are the five main nutrients in the five food groups?

6. Third question: What are the five health benefits of the five main nutrients?

7. Fourth question: What are five examples of hand symbols used to measure serving sizes?

8. The final question to declare the winning team: What are the recommended number of daily servings for each food group?

Assessment

1. Students must decide, as a team, how best to present their researched information to the rest of the class. Each team will have approximately five minutes to make their presentation to the class tomorrow (or the next class session—see **Lesson 1—Day 2**).
   - Students may wish to use a presentation method they saw modeled in the video (i.e., poster collage, computer slideshow, fictional game show) or select another method (e.g., put on a skit, create a rap or poem, make up slogans, create an advertisement or Public Service Announcement [PSA], paint a mural).
   - *Note: If scheduling constraints prevent students from doing creative presentations, they can still complete research independently or in small groups and either do very brief oral reports for their peers or just complete the Lesson 1—Day 1 workbook activities.*

LESSON 1—DAY 2: FOOD-GROUP EXPERTS

Overview of Lesson

This lesson relies on the instructional strategy of having "students teach students." The lesson guides students to acquire specific information about each of the food groups and information that they will use later to assess their options. Students begin to see what foods build their own healthy choices, and they continue to see that each of them is unique in the choices they make. Additionally, students have the opportunity to learn about specific nutrients, provided by food-group foods, which are critical to good health. It is the **combination of all the nutrients** in the foods we eat that keeps us healthy.

Nutrition Facts

- Reference Page 11 in Teacher Guide Lesson 1—Day 1 for any nutrition information needed for this lesson.

Student Objectives

1. Analyze food-group foods.
2. Identify the nutrients in food-group foods and their relationship to health.
3. Describe the benefits of eating a variety of foods.
4. Describe the contributions "extra" foods make to the diet.

Level of Cognition

Objective 1: Analysis
Objective 2: Knowledge
Objective 3: Knowledge
Objective 4: Knowledge

Materials

Student Workbooks, Pages 5 and 6

Exercise Your Options DVD, Lesson 1—Day 1: *Food-Group Experts* Video

PowerPoint Presentation

Additional resources available on your login page at **HealthyEating.org.**

Preparation

1. Review the answer key on Page 6 in the Student Workbook to prepare yourself for any questions students may have.

Length of Lesson: 60 minutes

(Time may vary based on length of student presentations.)

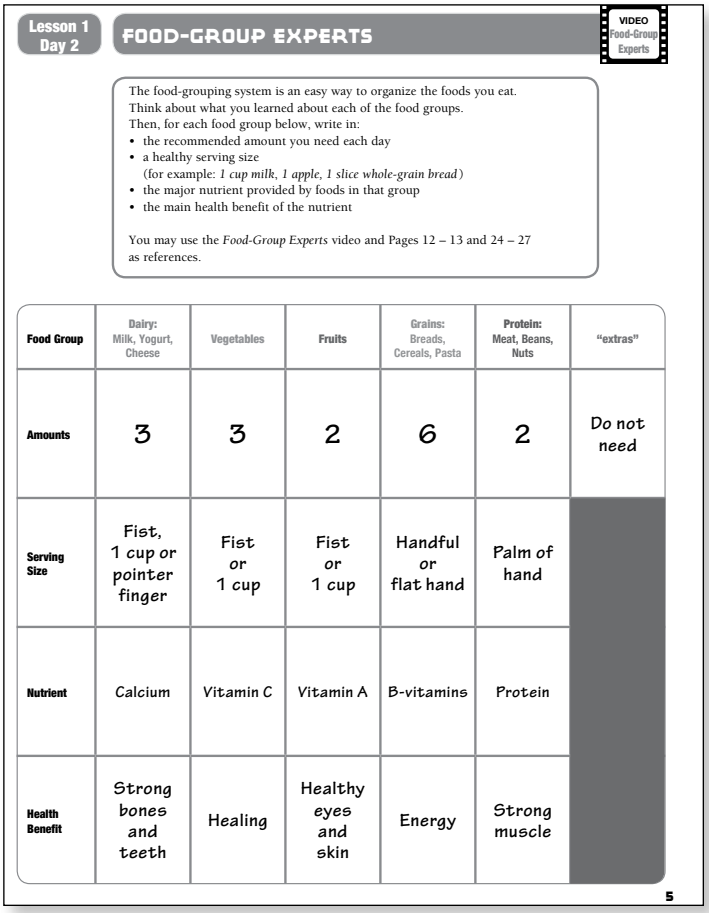
Anticipatory Set

1. Introduce the lesson.

- **Utilize** the PowerPoint presentation to introduce the program.
- **Tell** students that today they will make their food-group presentations.
- **Have** students read the instructions on Page 5 in their Student Workbooks. Tell them **after** each of the presentations, they will complete Page 5, one food group at a time.

Step-by-Step Procedures With Guided Practice

1. **Have students give their food-group presentation (Page 5).**
   - **Have** each "expert group" present to the whole class information about their food group. Remind students to listen carefully for the information that they will need to complete Page 5 and to learn as much as they can about each food group.
   - After each presentation, **ask** students to fill in the information about that food group on Page 5 in their workbooks. ***Note:*** *As a class, discuss any obvious misinformation you noticed students may have given during their presentations.*
     – After the presentation on "extras," students will notice that there isn't any room on the page to fill in the key nutrient information. **Reinforce** that "extras" are just that—extra—and provide few nutrients or health benefits.
     – **Reinforce** that while students have learned about the **major** nutrients in each food group, foods in each group provide a variety of important nutrients. Health professionals suggest that it is the **combination** of all the nutrients in the foods we eat that keeps us healthy.
   - After students have completed Page 5, **ask** if everyone learned enough information from the presentations to complete their notes. Did any food-group presentation leave out critical content? If so, **ask** students to determine where they could find the missing information.
2. **Have students determine "which food group is it?" (Page 6).**
   - **Have** students review Page 6 in their workbooks and explain that each of the graphs shows the nutrients provided by one serving of an unidentified food.
   - Students should look at the two graphs already drawn for them, determine what the major nutrient is, and then from that information, determine which food group this food belongs.
   - Finally, students should complete the remaining four graphs by drawing the bars using the nutrient information provided on the page. ***Note:*** *Students can either work independently or in pairs to complete the graphs.*



Lesson 1 Day 2

FOOD-GROUP EXPERTS

VIDEO Food-Group Experts

The food-grouping system is an easy way to organize the foods you eat.
Think about what you learned about each of the food groups.
Then, for each food group below, write in:
- the recommended amount you need each day
- a healthy serving size (for example: *1 cup milk, 1 apple, 1 slice whole-grain bread*)
- the major nutrient provided by foods in that group
- the main health benefit of the nutrient

You may use the *Food-Group Experts* video and Pages 12 – 13 and 24 – 27 as references.

Food Group	Dairy: Milk, Yogurt, Cheese	Vegetables	Fruits	Grains: Breads, Cereals, Pasta	Protein: Meat, Beans, Nuts	"extras"
Amounts	3	3	2	6	2	Do not need
Serving Size	Fist, 1 cup or pointer finger	Fist or 1 cup	Fist or 1 cup	Handful or flat hand	Palm of hand	
Nutrient	Calcium	Vitamin C	Vitamin A	B-vitamins	Protein	
Health Benefit	Strong bones and teeth	Healing	Healthy eyes and skin	Energy	Strong muscle	

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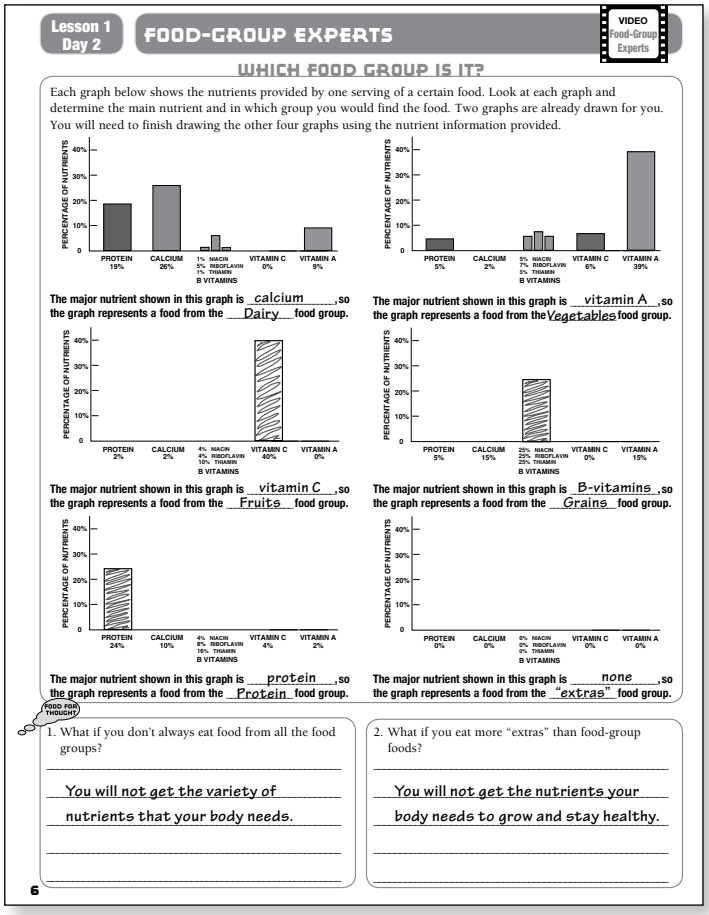
3. **Review** "Which food group is it?" (Page 6).
   - **Review** correct shading of graphs with students. Ask them to predict which foods they think are depicted in the graphs.

     Answer Key: The graphs, shown from left to right, actually depict the following foods:
     - *Dairy: mozzarella cheese*
     - *Vegetables: mixed vegetables*
     - *Fruits: pineapple*
     - *Grains: raisin bran*
     - *Protein: pinto beans*
     - *"extras": fruit roll*

4. **Discuss students' answers.**



Lesson 1 Day 2

FOOD-GROUP EXPERTS

VIDEO Food-Group Experts

WHICH FOOD GROUP IS IT?

Each graph below shows the nutrients provided by one serving of a certain food. Look at each graph and determine the main nutrient and in which group you would find the food. Two graphs are already drawn for you. You will need to finish drawing the other four graphs using the nutrient information provided.

The major nutrient shown in this graph is calcium, so the graph represents a food from the Dairy food group.

The major nutrient shown in this graph is vitamin A, so the graph represents a food from the Vegetables food group.

The major nutrient shown in this graph is vitamin C, so the graph represents a food from the Fruits food group.

The major nutrient shown in this graph is B-vitamins, so the graph represents a food from the Grains food group.

The major nutrient shown in this graph is protein, so the graph represents a food from the Protein food group.

The major nutrient shown in this graph is none, so the graph represents a food from the "extras" food group.

FOOD FOR THOUGHT

1. What if you don't always eat food from all the food groups?

   You will not get the variety of nutrients that your body needs.

2. What if you eat more "extras" than food-group foods?

   You will not get the nutrients your body needs to grow and stay healthy.

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Check for Understanding

1. **Ask** students: What happens if they do not eat foods from any one food group?

   Answer: They will probably not be getting an adequate amount of the major nutrient provided by that food group. For example, without foods from the Dairy group, they would probably not get the calcium they need to build strong bones today—nor the calcium they need to store for strong bones as they get older (peak bone mass).

2. **Ask** students: What happens if they eat more "extra" foods than anything else?

   Answer: They are not eating the recommended amounts of foods in the food groups and are not, therefore, getting the nutrients they need. Also, by eating mostly "extra" foods, they are probably getting excess amounts of fat, sugar and/or calories.

3. **Address** other "What if …" questions if students have them. For example:
   - **What if I'm a vegetarian and don't eat meat?** Even though they may choose not to eat meat, there are many other foods to choose from that fit into the Protein group—nuts, beans, eggs, peanut butter. If a student is a strict vegetarian who consumes no animal products at all, encourage him or her to consult a dietitian to help plan ways of getting adequate nutrients for growth and development.
   - **What if I don't drink milk?** There are many other dairy foods from which to choose. If they don't drink milk because they have trouble digesting lactose, or milk sugar, suggest they drink milk in smaller amounts with meals, or that they try lactose-reduced milk. Also, yogurt and some hard cheeses, such as cheddar, are usually easier to digest than milk. (For more information on lactose intolerance, see additional resources on the DVD or on your login page at **HealthyEating.org**.)

Assessment

1. **Have students respond to the Food for Thought writing prompts (Page 6).**
   - **Reinforce** the idea that when they consider options, questions will often arise: "What if I do this?" or "What if I do that?" Have students write their responses to the two "What if …" questions at the bottom of Page 6.

NOTES