



## How to Make an Apple Pie and See the World

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**Program Description:** LeVar learns some secrets of cooking from a master chef as he prepares some familiar dishes in new ways.

### Math Concepts:

- ordinal numbers
- timeline
- measurement
- money values
- estimation
- fractions
- problem solving

• **Measurement in cooking.** LeVar's recipe for "Apple Raisin Muffins" is included below. Use this recipe or one for a different dish containing apples for cooking in the classroom. Emphasize the importance of accurate measurement of ingredients when cooking, and point out such details in the recipe as time and temperature of cooking. This recipe makes approximately 12 muffins. Have students figure out how they will need to modify the recipe in order to make enough for their class.

#### LeVar's Apple Raisin Muffins

Mix the following ingredients and set aside:

- 1/4 c. sugar
- 1 3/4 c. flour
- 3/4 tsp. salt
- 2 tsp. baking powder
- 1 tsp. cinnamon

Mix these ingredients:

- 2 eggs, beaten
- 2-4 Tbsp. cooking oil
- 1/2-3/4 c. milk

**Directions:** Add the dry ingredients to the liquid mixture and stir just until the dry mixture is moistened. Gently stir in 1 c. chopped apples and 1/2 c. raisins. Spoon into greased muffin tin or paper muffin cups. Bake in 375° oven for about 25 minutes.

- **Making a timeline.** Have students create a timeline of events in the story, starting with finding the market closed and ending with eating apple pie.

- **Using ordinal numbers.** Using a large map of the world, have students retell the story, incorporating the use of ordinal numbers to highlight all the places the character visited. (Her starting place is not mentioned in the story. Students will need to decide on a spot, perhaps their own hometown.)

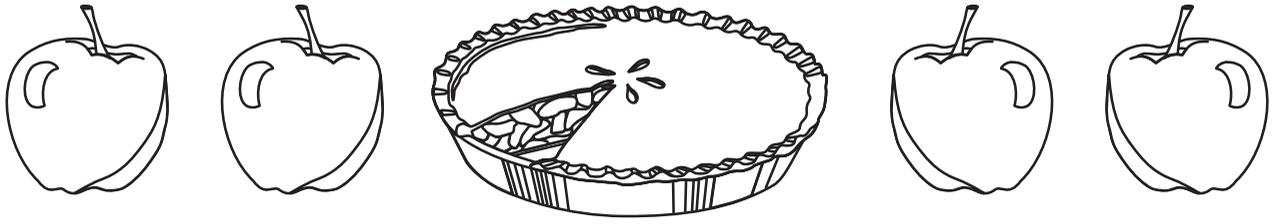
- **Calculating distances.** Using mileage tables and a large map of the world, have students calculate the distance in miles that the main character traveled on her trip. They will need to select a starting spot and cumulatively add the distances from one location to the next. This activity might provide calculator practice.

- **Estimation.** Have students estimate how many apples are needed to make the one cup of chopped apples called for in LeVar's recipe. Include in the discussion such factors as size of the apples and how tightly packed the apple pieces are in the measuring cup. Have students estimate the circumference of an apple by cutting a piece of red yarn to the length they believe is the distance around the apple at its roundest portion. Have them compare their estimates with a piece of yarn cut to the actual circumference.

- **Fractions.** While preparing apples for cooking or baking, have students explore different ways of cutting an apple into fractional parts. When cutting the apple lengthwise, the yarn from the estimation activity above may be useful for determining pieces that are equal in size. Using yarn that has been cut the length of the circumference of the apple, have students measure that length with a ruler and figure the one-half mark and the one-fourth and three-fourths marks. They then place the piece of yarn around the apple and make a tiny cut to show one-half, cut the apple in half, and use the yarn again to help them cut each half into halves. Also have students experiment with cutting an apple in half and fourths crosswise. Discuss the possibility of obtaining pieces of equal size by cutting crosswise compared to cutting the apple lengthwise. Take advantage of the opportunity provided by cutting crosswise to discuss the star pattern made by the apple seeds. (If possible, have some extra parent volunteers to assist with the cutting.)

# Do-At-Home Activity

• **Creative Problem Solving.** Involve parents in helping their children devise creative responses to this question: "What can you do with an apple?" Stipulate that their responses must be math-related. Have families record their ideas on the reproducible page. Send an apple home with each child to inspire thought. Ask students to return their page of ideas to school, and share the responses. Do a tally of the number of different ways they suggested. They may want to compile an apple math book of their ideas, called " \_\_\_\_ Ways to Use an Apple."



What can you do with an apple?

Directions: Think of as many things you can do with an apple as possible. Here's the "worn": everything must be math-related! Write your ideas below.

