



Chapter 4

Fruits

Fruits are sweet plant parts that we eat. There are many different groups of fruit. There are pomes, drupes, berries, melons and citrus fruits. Most Americans do not eat the variety or amount of fruits that they need for healthy living. For this reason, it is important to learn about the nutrition and science of fruits.

Enjoy the fruit follies!

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Just Saucy

Did you know there are specific varieties of apples used to make applesauce?

Apples are divided into **varieties**. A variety is a grouping of similar items within a category. Golden Delicious, Rhode Island Greening and McIntosh are different apple varieties. These varieties are sometimes used to make applesauce.



When making applesauce you shouldn't pick apples that are sour such as Granny Smith apples. You need apples that are sweet like Gala apples. Once you've picked out the sweetest apples, making applesauce is simple! All you need are apples, sugar, cinnamon, water and a way to heat it all up.

Sugar can be added to help make applesauce sweet. If you pick apples that are really sweet, like a golden delicious or Gala apple, then you may not need to add sugar. Adding cinnamon helps give applesauce flavor. When apples are heated they soften. This makes it easier to make applesauce, because the apples are easier to smash. Put all of this together and you have the perfect applesauce **recipe**.

A recipe is a group of instructions used to make something. It is important to follow the directions in a recipe. You have to start with the first step. Following a recipe is like trying to solve a word problem. The directions are in order. You can't find the right answer if you don't follow the directions. In the recipe, there are **ingredients**. Ingredients are the parts you put together when you follow a recipe.

DOODLE BUGS

In the reading, underline the sentence that tells you the definition of a recipe.

Circle an example of an apple variety used to make applesauce.

List the ingredients needed to make applesauce.

MATHEMATICS INVESTIGATIONS:

Saucy Apples



You will need:

- 1 pencil
- 1 calculator

Things to know

- 1 apple = 1/2 pound
- 1 pound = 16 ounces
- teaspoon = tsp

Read the chart below to find out how many apples you need to make applesauce.

Apple Weight	Apple Amount	Applesauce Amount (Recipe Yield)
1 pound	_____ apples	1.5 cups

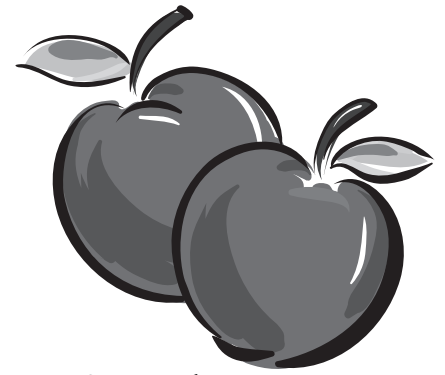
To make the perfect applesauce you need more than just apples. Use the chart below to find out how to make applesauce. Hint: You will need to divide 2 by 1/2 (0.5) pounds to find out how many apples you need.

To find out how many apples you need:

1. Convert ounces to apples

Original Recipe

Ingredient	Amount	
Sugar	1/4 cup	
Water	1/2 cup	
Cinnamon	1 tsp	
Apples	2 pounds	_____ apples
Recipe Yield	3 cups	



MATHEMATICS INVESTIGATIONS: **Saucy Apples (continued)**

Making the perfect applesauce

You are going to make applesauce for a classroom. There are 24 students in this classroom. Each student wants $\frac{1}{4}$ cup of applesauce. Use the chart below to find out how to make applesauce for these students.

1. Classroom Recipe Yield = $\frac{1}{4}$ cup \times 24 = _____ cups
2. Divide the Classroom Recipe Yield by the Original Recipe Yield to help find the Classroom Ingredient Amounts.

$$\text{_____ cups} / 3 \text{ cups} = \text{_____}$$

Classroom Recipe

Ingredient	Original Ingredient Amount	Classroom Ingredient Amount
Apples	4 apples	_____ apples
Sugar	$\frac{1}{4}$ cup	_____ cups
Water	$\frac{1}{2}$ cup	_____ cups
Cinnamon	1 tsp	_____ tsp
Recipe Yield	3 cups	_____ cups

MATHEMATICS INVESTIGATIONS:

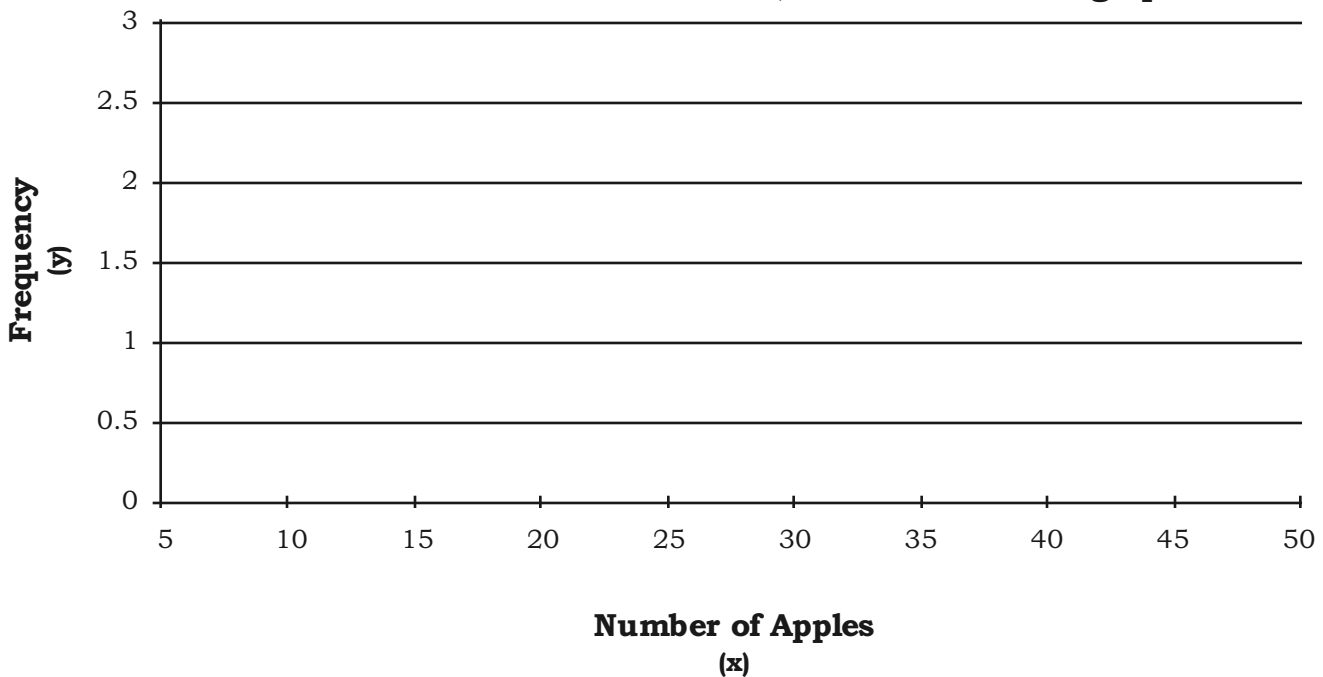
Saucy Apples (continued)

Picking the apples

Use the table to find out the distribution of how much of each variety that was used to make applesauce for a whole school. There were 33 Golden Delicious, 24 Rhode Island Greening, 23 McIntosh, 26 Red Delicious and 16 Fuji used. For example, there were 33 Golden Delicious so place one “1” mark for the frequency 30-39 because there is one type of apple from which between 30-39 apples were used. Once the table is complete add up the “1” marks and graph the frequency of each range as a bar in the graph below.

Number of Apples (x)	Frequency (y)
0-9	
10-19	
20-29	
30-39	
40-49	

For each number set in the chart above, draw a bar on the graph.



FUN WITH FOOD: **Homemade Applesauce**

You will need:

1 medium pot or deep pan
1 burner
1 spoon
1 vegetable peeler
4 apples
 $\frac{1}{2}$ cup water

PREP TIME: 20 minutes

$\frac{1}{4}$ cup light brown sugar
 $\frac{1}{2}$ teaspoon cinnamon
Help from an adult

Recipe makes $2\frac{3}{4}$ cups.

You will observe, taste and record the apples as they transform into applesauce.

Make your own applesauce!

1. Peel, core and slice the apples.
2. Cut apple slices into chunks.
3. Place the apple chunks in the pot with water. Simmer for 15 minutes.
4. Stir in sugar and cinnamon.
5. Mix well.
6. Make sure apples are creamy before turning off the burner. You may need to use a fork or potato masher to help break down the apples.
7. Serve warm, or place in refrigerator for a cool sauce.

Fun Fact

Did you know applesauce can be used as a substitute for oil in baking recipes? It is used just like oil, but has fewer calories.

FUN WITH FOOD:

Homemade Applesauce

Record and draw your observations

1. Describe the apple appearance and texture before slicing.



2. Describe the apple appearance, texture and taste after mixing ingredients together.



3. Describe the apple appearance, texture and taste once they are mashed.



Proficiency Questions

Circle the best answer:

- 1. Which of the following is an apple variety?**
 - a. golden delicious
 - b. sheep's foot
 - c. beagle
 - d. none of the above

- 2. Consider the following numbers: 40, 35, 40, 25, 61, 23, 17, 40, and 61. How many numbers are between 19-30?**
 - a. 1
 - b. 3
 - c. 2
 - d. 6

- 3. Using the numbers in the previous question, what is the mode?**
 - a. 40
 - b. 35
 - c. 61
 - d. none of the above