

Weekly Test Lesson 3

Read the passage. Then answer the questions.

On the Rise

Did you ever wonder how breads, pizza crusts, cookies, and other foods rise, or grow, when they are put in the oven? It can't be the heat of the oven alone that causes this change. Otherwise, anything put in a warm oven would grow. The reason certain foods rise when baked is that a leavening agent was used. Leavening agents are key ingredients in many recipes.

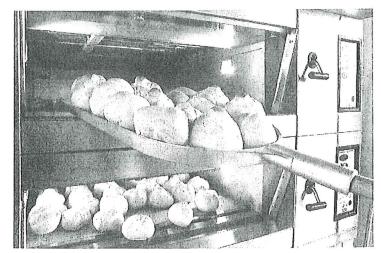


A leavening agent is something used to lighten dough or batter. Leavening agents create air, steam, or carbon dioxide gas in the mixture. These substances cause the dough or batter to rise. Leavening agents give cakes and other foods their light, fluffy texture. Probably the most well-known leavening agents are baking powder and yeast. However, baking soda is also used to leaven. Beaten eggs or egg whites are leavening agents, too.

Grade	4
LESSON	3

Reading





The use of baking powder dates back to the early nineteenth century. When it was invented, it was thought to have changed the course of American cooking. Before baking powder, batters could be unpredictable. They came out differently each time. With baking powder, bakers could better predict how their baked goods would come out of the oven. Baking powder works quickly. The oven's heat releases the full force of the leavening gases. This release causes the batter to rise. Baking powder should be stored in an airtight container. It should be replaced at least twice a year. Otherwise, it can lose its effectiveness. You don't want your batter to fall flat.

Yeast is another common leavening agent. It is used primarily in breads. Yeast is a living thing. It is a tiny fungus. It lives best in a warm, moist environment. Unlike fast-acting baking powder, yeast works more slowly. It attacks the flour. Over time, the yeast changes the flour. The dough develops a good texture and flavor. Bakers let their dough rise before baking. This time lets the yeast work. The dough may double in size. Then it continues to rise when baked. Yeast should be stored in a cool, dry place. Pay attention to the expiration date on the yeast. The yeast may not work well after this date.

Baking soda can also be a leavening agent. It must be mixed with something acidic. Buttermilk and lemon juice are acidic. When mixed, a reaction produces gases. These gases make the batter rise. Beaten eggs or egg whites also cause batters to rise. They enclose air. The air forces the batter to expand in the oven's heat.

The next time you see a dish baking, take a look. Is it on the rise? If it is, then baking powder, yeast, baking soda, or eggs are likely in the recipe. Our foods would be very different without these leavening agents.

Grade 4
LESSON 3
Reading

		LESSON 3
Name	Date	Reading

1 Read the sentences from the passage.

The use of baking powder dates back to the early nineteenth century. When it was invented, it was thought to have changed the <u>course</u> of American cooking. Before baking powder, batters could be unpredictable. They came out differently each time. With baking powder, bakers could better predict how their baked goods would come out of the oven.

What does the word course most likely mean?

- path
- B class
- © cycle
- racetrack
- Which of the following explains how baking powder causes batter to rise?
 - The baking powder gives off gases when heated.
 - ® The baking powder is stored in an airtight container.
 - The baking powder affects how light and fluffy the food is.
 - The baking powder helps bakers predict how the foods will come out.
- Mark the boxes to show which leavening agent causes each effect. Some rows may have more than one correct answer.

	Baking Powder	Yeast	Baking Soda
Produces gas when mixed with something acidic			
Attacks and changes the flour			
Causes dough or batter to rise			

Lesson 3.1 Reteach Name .

Multiply by Tens

One section of seating at an arena has 30 rows. Each row has 40 seats. How many seats in all are in that section?

Multiply. 30 × 40

Step 1 Think of each factor as a multiple of 10 and as a repeated addition.

$$30 = 3 \times 10 \text{ or } 10 + 10 + 10$$

$$40 = \frac{4}{10} \times \frac{10}{10} \text{ or } \frac{10}{10} + \frac{10}{10} + \frac{10}{10} + \frac{10}{10}$$

Step 2 Draw a diagram to show the multiplication.

Step 3 Each small square in the diagram shows 10 \times 10, or $\frac{100}{100}$. Count the There are 12 squares of 100

9

9

Step 4 Use patterns and mental math to find 12 \times 100.

12 × 1 = 12

$$12 \times 100 = 1.200$$

There are 1.200 seats in that section.

Choose a method. Then find the product.

3. $60 \times 70 =$ **2.** $40 \times 40 =$ 1. $20 \times 90 =$

6. 90 × 40 = $5.80 \times 60 =$ 4. 50 × 30 =

Reteach

3-5

Name

Lesson 3.1 Enrich

Multiplying with Tens

Solve each problem.

How many cases of juice boxes did the school order? A school ordered 480 juice boxes. 1. Juice boxes come in cases of 24.

2. John has 630 baseball cards. He sorts

- the cards into stacks of 30 cards. How many stacks can he make?
 - has 40 quarters in it. How many rolls 2,000 quarters. Each roll of quarters of quarters did the bank receive? 3. A bank received a supply of
 - carnival tickets. A total of 3,850 tickets were sold in one day. How many strips 4. There are 10 tickets in each strip of of tickets were sold that day?

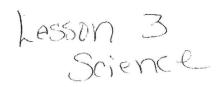
5. Write Math. Explain what strategy you used to solve Problem 3.

3-6

Enrich

LOP TONEY.





Lesson 18 Plant and Animal Cells

Remember that the atom is the basic building block of matter. The **cell** is the building block of all living things. Therefore, all organisms are made up of one or more cells. The simplest organisms, such as **bacteria**, are made of one cell. Animals and plants have more than one cell. Humans are made up of trillions of cells. (A trillion is a million million.)

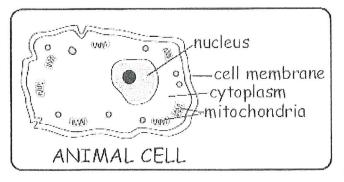
A **tissue** is a group of cells that all do the same thing. For example, muscle is a tissue. Muscle cells all *contract*, or pull together, when they move body parts. Brain cells are also a tissue. They work together to send information. Can you name other tissues?

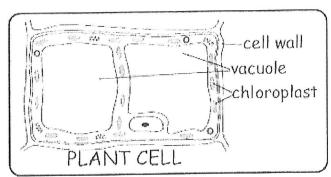
A cell is made of many different cell parts, or **structures**. Each cell structure has a **function**. A function is the job done by a structure. The structures of animal cells are different from those of plant cells.

All animal cells have a structure called a **cell membrane**. The function of the cell membrane is to separate the structures inside the cell from everything outside the cell. Inside the animal cell is a clear jelly-like liquid called the **cytoplasm**. Floating in the cytoplasm are a number of different structures. The cell needs each structure in order to survive. For example, **mitochondria** are needed to provide energy for the cell. The **nucleus** organizes the cell's activities. Look at the diagram of an animal cell, and find the structures you read about.

Plant cells are similar to animal cells, but they have a few different structures. For example, plants need energy from sunlight to survive, so plant cells have a structure that changes sunlight into energy. This structure is called a **chloroplast**, and it is green. Like animal cells, plants have a cell membrane, but they also have a *rigid* **cell wall**. The cell wall is outside the cell membrane. Cell walls are needed to support plants because they don't have a skeleton. Plants also need to store large amounts of water. In plant cells, a **vacuole** is a storage sack for water and other things.

Look at the diagram of a typical plant cell below. Locate the cell wall, chloroplasts, and vacuole. Then see if you can find the nucleus, cell membrane, cytoplasm, and mitochondria.







Lesson 18 Plant and Animal Cells

1. For each statement, select True or False.

A. All cells have the same structures.	true	false
B. All cell structures have jobs.	true	false
C. Cells get energy from mitochondria.	true	false
D. A tissue is made up of cells that do the same thing.	true	false

2. In the following sentence, rigid probably means

Like animal cells, plants have a cell membrane, but they also have a rigid cell wall.

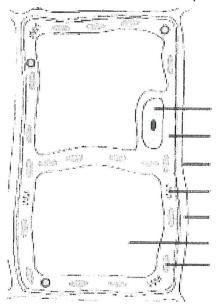
- A. taken away
- B. strong
- C. provided with
- D. large
- 3. What structures do plant and animal cells have in common?
 - A. Nucleus
 - B. Cell membrane
 - C. Cytoplasm
 - D. Mitochondria
 - E. All of the above
- 4. Heart cells make up heart tissue.
 - A. True
 - B. False

Write *1 next to the sentence that gives the best evidence for your answer.

5. In the following sentence, contract probably means

Muscle cells all contract, or pull together, when they move body parts.

- A. get weaker
- B. get bigger
- C. tighten
- D. stretch
- **6.** In the plant cell diagram below, label the nucleus, vacuole, cytoplasm, mitochondria, cell wall, cell membrane, and chloroplast.



- 7. Why do you think human cells do not have cell walls?
 - A. because human cells do not have cell membranes
 - B. because humans have skeletons for support
 - C. because human cells do not have chloroplasts
- 8. Why are plants green?
 - A. Because the cytoplasm in the cells is green.
 - B. Because it's easy to be green.
 - C. Because they get their coloring from chloroplasts, which are green.
 - D. none of the above

Directions: Do the following physical activities for <u>30 seconds each</u>. Then complete the graph below with the number of each activity. Don't forget to label your graph with: 1.) A title 2.) The activity name across the bottom 3.) Number of times in 30 seconds up the side. **Then write a paragraph about the graph showing your final results (what did you do the most, the least, etc.).**

- 1. Jumping Jacks
- 2. Push-ups
- 3. Sit-ups

