

UNIT  
**12**

## The Science of Flavor

### Unit Focus

You are going to read a science article about food flavoring.

**As You Read:**

Think about what food flavorists do and why.

**After You Read:**

Use information from the article to write an argument essay for or against artificial food flavoring.

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### Lesson Checklist

Check off each task after you complete it.

- Learn Vocabulary
- Read the Science Article: *The Science of Flavor*
- Answer Questions About the Science Article
- Organize Information
- Write an Argument Essay
- Evaluate Your Writing

Name \_\_\_\_\_



## The Science of Flavor

### Learn Vocabulary

Read the word and its definition.  
Then write the vocabulary word on the line.

- |                   |  |       |
|-------------------|--|-------|
| 1. artificial     | fake; not real   | _____ |
| 2. bureau         | a department or division<br>of the government  | _____ |
| 3. contracts      | written legal agreements that<br>are signed by two or more<br>parties                      | _____ |
| 4. keen           | very good; excellent   | _____ |
| 5. manufacturers  | companies that make goods<br>to sell to businesses or people                               | _____ |
| 6. preserved      | kept from spoiling or rotting;<br>saved for future use                                     | _____ |
| 7. processed food | food that has been modified<br>to last longer or taste better;<br>food that is not natural | _____ |
| 8. qualify        | to be able to do something<br>as a result of schooling or<br>training                      | _____ |

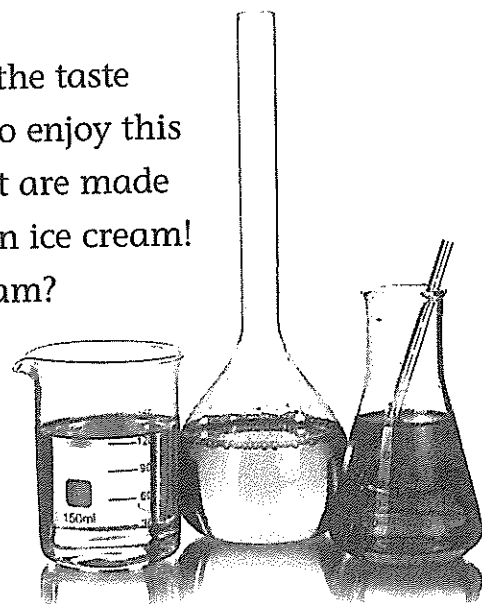
## The Science of Flavor

Think of a flavor you like. Maybe you love the taste of bacon. You do not have to fry actual bacon to enjoy this flavor. There are a lot of foods you can buy that are made to taste like bacon—crackers, popcorn, and even ice cream! But how does a taste like bacon get into ice cream?

As strange as it might seem, making flavors for food is a real profession. People who have this job are called flavorists, but they can also be known as food chemists or food research scientists. They work to figure out which flavors people like and how to best re-create those flavors. Tasting the flavors is a big part of the job, but there is much more to it. While it's true that a flavorist must have a keen sense of taste and smell, a flavorist also usually needs a degree in chemistry or food science to qualify for this position.

Flavorists are hired by large food-and-drink companies to work in their flavor departments. In the lab, flavorists mix chemicals to create both artificial and natural flavors. They try to create new, unique flavors that their competitors don't offer, as well as less expensive versions of flavors that already exist. For example, to make vanilla flavoring using the vanilla bean can be very expensive. A flavorist can copy the taste of vanilla by mixing certain chemicals at a far lower cost. Because of the fierce competition in the food-and-drink industry, businesses are very protective of the flavors they create. In fact, workers in a flavor department often have to sign contracts agreeing to not reveal any of the company's flavor recipes.

Before the early 1900s, most homes in the United States did not have refrigerators. People grew gardens, cared for livestock, or hunted for their food. Some foods could be preserved through drying or



canning, but other foods had to be eaten fresh because the food couldn't be preserved without refrigeration. As more people moved to cities, they bought more food from markets. Business owners who sold the food to the markets had to find new and creative ways to keep the food fresh and safe to eat for longer and longer amounts of time. They used chemicals to preserve the food until it was delivered to customers.

Over time, people were able to buy more types of preserved, or processed, food, but the manufacturers found a problem—it did not taste the same as fresh food. Processed food didn't have a lot of flavor, so customers complained and stopped buying certain brands. And manufacturers had another problem—some people did not want artificial flavoring and preservatives added to their foods. They believed that preservatives could be harmful. Also, preserving food meant that food from local farms was being replaced by preserved fruits and vegetables from larger farms that were far away. This made it difficult for local farmers to sell their fresh food. Because the manufacturers were in the business of preserving and flavoring food, not selling fresh food, they had to find a way to make preserved food taste better. Their solution was to use more complex mixtures of chemicals. But this was not something that just anyone could do. Only people with a certain kind of education or set of skills were qualified to do the job. Those people became known as flavorists. Today, almost everything we eat and drink includes the artificial flavors that flavorists make. Depending on how you feel about artificial flavoring, this could be a good thing or a bad thing. Either way, the road to becoming a flavorist isn't easy. After getting a college degree, a person would follow these steps provided by the Bureau of Labor Statistics:

- 1 Train for five years in a lab.
- 2 Take and pass a test to become a junior flavorist.
- 3 After two years, take and pass another test to become an official flavorist.

## Answer Questions

Read and answer each question.

1. Which degree would be the best to have if you wanted to be a flavorist?
  - (A) statistics
  - (B) business
  - (C) chemistry
2. Flavorists create new flavors by \_\_\_\_\_.
  - (A) mixing various chemicals
  - (B) refrigerating fresh food
  - (C) testing flavors at grocery stores
3. What was the main food-related problem for people who lived before the early 1900s?
  - (A) natural food that tasted bad
  - (B) lack of refrigeration
  - (C) unsuccessful gardening
4. How many years would it take to become a flavorist after you've graduated from college?
  - (A) 2 years
  - (B) 5 years
  - (C) 7 years
5. Some people do not approve of artificial flavoring. Why do you think they feel this way?  
\_\_\_\_\_  
\_\_\_\_\_

6. How would food be different today if flavorists did not exist?  
\_\_\_\_\_  
\_\_\_\_\_

## Organize Information

Read the science article again. Then write information in the graphic organizer that makes an argument for or against eating foods that have artificial flavoring. Include reasons that support your argument.

<p style="text-align: center;"><b>For</b></p>	<p style="text-align: center;"><b>Against</b></p>
<p style="text-align: center;"><b>3 Reasons</b></p>	<p style="text-align: center;"><b>3 Reasons</b></p>

Name \_\_\_\_\_



## The Science of Flavor

### Argument

Write an argument essay for or against eating artificially flavored foods. Use information from your graphic organizer and the science article.

\_\_\_\_\_

Title

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The Science of Flavor

## Evaluate Your Writing

Read about the argument structure. Then use your essay to complete the activity below.

A text that **argues** makes an argument for or against something. It also includes facts or reasons that support the argument.

**The reason for writing is clear.**

My essay argued that:

\_\_\_\_\_

I introduced the subject in this topic sentence:

\_\_\_\_\_

**I provided facts or reasons that support my argument.**

I included these facts or reasons:

1. \_\_\_\_\_

2. \_\_\_\_\_

**My paragraphs have a clear focus.**

My first paragraph explains that:

\_\_\_\_\_

My last paragraph includes this conclusion sentence:

\_\_\_\_\_