

Extended Informational Reading Comprehension

# Food Science



Answer the following questions about “Food Science.”

1. What are **two** central ideas in the passage?

- a. Food science involves many different methods and specialties.
- b. Food science was first used by humans thousands of years ago.
- c. Bioengineering has more advantages than disadvantages.
- d. The goal of food science is to improve foods for human consumption.

2. How do the photo and caption in Image 2 contribute to the development of ideas in paragraph 3? What is the benefit of presenting this information visually?

**Image 2 shows common examples of foods that undergo high-pressure processing. The image allows readers to immediately visualize the kinds of HPP foods they can find in the grocery store.**

3. **Part A:** What can be inferred about microorganisms from the information in paragraph 3?

- a. They enhance the flavors in some foods.
- b. Some make foods dangerous to eat.
- c. They can only be deactivated with heat.
- d. Some are helpful for the health of food plants.

**Part B:** Cite at least **two** pieces of evidence from paragraph 3 that support the inference in Part A.

**"While it is impossible to get rid of microorganisms completely, biologists work with engineers and other food preservation scientists to preserve food so that it is safe for consumption."**

**"For example, high-pressure processing, or HPP, applies intense cool pressure to sealed foods to deactivate harmful microorganisms."**

4. Why does the author refer to the Alaskan supermarket in paragraphs 1 and 4 of the text? How does this reference contribute to the development of the central ideas of the text?

**The author refers to the Alaskan supermarket to give a real world example of how and why food science is useful and important. This example helps to show how the different branches of food science have helped people in places like Alaska, where certain foods would not have been available before "improvements in preservation and transportation."**

5. **Part A:** What is the author’s overall point of view about food science?

- a. It is expensive and potentially dangerous.
- b. It is primarily helpful for large supermarkets in cold places.
- c. It is necessary and continues to solve problems.
- d. It is too new to evaluate effectively

**Part B:** Cite **two** sentences from the text that support your answer in Part A.

**"Many fields of food science exist to address current food needs and preferences."**

**"Food science is as complex as it is essential."**

Extended Informational Reading Comprehension

# Food Science



Answer the following questions about “Food Science.”

6. According to the text, what are some positive and negative effects of food science research? Complete the chart below using evidence from the passage.

Positive Effects	Negative Effects
<ul style="list-style-type: none"> <li>• People in more parts of the world have greater access to a variety of fresh foods year round.</li> <li>• Food is safer and has a longer shelf life.</li> <li>• Bioengineered plants can resist diseases, pests, and harsh weather and can stay fresh longer after harvest.</li> <li>• Bioengineered foods can have boosted nutritional value.</li> </ul>	<ul style="list-style-type: none"> <li>• It requires a lot of energy to generate, store, and transport foods over such long distances.</li> <li>• The long-term impact of bioengineered foods on human health is still unknown.</li> <li>• GMOs can have unintended side effects on the ecosystem.</li> </ul>

7. Circle **three** words in the passage that contain a Latin or Greek root or prefix. Record each word in the table below, underlining the root or prefix. Then complete the table with the meaning of the root or prefix and the meaning of the word. Use context clues from the passage and/or a dictionary to help you.

Word	Meaning of the Root/Prefix	Meaning of the Word
<p><b>EXAMPLE:</b> <u>bio</u>engineering</p>	<p>life</p>	<p>using biological techniques to create modified versions of organisms</p>
<p><u>nutri</u>tional</p>	<p>to nourish or feed</p>	<p>having nutrients to nourish or feed</p>
<p><u>contro</u>versial</p>	<p>against</p>	<p>causing disagreement</p>
<p><u>aspe</u>cts</p>	<p>to observe</p>	<p>parts or features that can be observed</p>