NO PREP

Pumpkins and Agriculture

Includes: Student reading, case study, differentiated questions, teacher key

Name: Period: Date:

Pumpkins and Agriculture

The Role of Pumpkins in Farming

Pumpkins are more than just Halloween decorations; they are an important agricultural crop in the United States and around the world. As members of the squash family (Cucurbitaceae), pumpkins are grown for food, decoration, and animal feed. In the U.S., Illinois leads pumpkin production, with most of its harvest used for canned pumpkin products. Pumpkins require fertile soil, plenty of sunlight, and a long growing season, making them an important part of diversified farming. Pumpkins are also tied to cultural traditions. Every fall, pumpkin patches become popular destinations for families, while jack-o'-lantern carving turns pumpkins into spooky symbols of Halloween. Farmers benefit from this seasonal demand, as agritourism (farm

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Food Waste and Environmental Impact

Every year, millions of pumpkins are grown specifically for Halloween carving, and most of them end up in landfills after the holiday. Once in landfills, decomposing pumpkins release methane gas, a greenhouse gas more powerful than carbon dioxide. This waste contributes to climate change and shows the environmental cost of seasonal traditions. There are, however, sustainable alternatives. Pumpkins can be composted instead of thrown away, returning nutrients to the soil without producing harmful gases. They can also be donated to farms for animal feed, or used in recipes like soups, pies, or roasted seeds. Encouraging families to treat pumpkins as food rather than disposable decorations is an important step in reducing waste.

Balancing Tradition and Sustainability

Pumpkins will likely always be part of fall traditions, from carving jack-o'-lanterns to sipping pumpkin spice lattes. But understanding their agricultural importance and

environmental impact helps students see the connection between farming, culture, and sustainability. Choosing to compost, cook, or donate pumpkins allows people to enjoy Halloween while reducing their ecological footprint.

Key Information: Table: Pumpkin Production and Environmental Impact

Aspect	Details
U.S. production leader	Illinois
Main use	Canned products and Halloween decorations
Environmental issue	Methane from landfill waste
Sustainable options	Composting, animal feed, cooking
Cultural role	Jack-o'-lanterns and agritourism

Case Study: The Environmental Impact of Millions of Discarded Pumpkins

In 2019, researchers in the U.K. reported that more than 8 million pumpkins were thrown away after Halloween. Most were carved into jack-o'-lanterns but not eaten. This waste produced thousands of tons of greenhouse gases, highlighting the environmental cost of a holiday tradition. Similar problems occur in the United States, where an estimated 1 billion pounds of pumpkins are grown each year, much of it discarded after October. Some communities have responded with "pumpkin recycling" programs. Local governments and environmental groups encourage residents to bring leftover pumpkins to composting sites or donate them to farms. These efforts not only reduce methane emissions but also raise public awareness about food waste. By rethinking how pumpkins are used after Halloween, communities can turn a spooky problem into an opportunity for sustainability.

1. Why does throwing pumpkins in landfills harm the environment?

2. What are two sustainable solutions communities have used to reduce pumpkin waste?

Multiple Choice

1. Which U.S. state produces the most pumpkins?
    a) Texas
    b) California
    c) Illinois
    d) New York

2. What harmful gas is released when pumpkins decompose in landfills?
    a) Nitrogen
    b) Carbon monoxide
    c) Oxygen
    d) Methane

3. Which of the following is a sustainable way to use leftover pumpkins?
    a) Compost or donate them
    b) Throw them in the trash
    c) Spray them with chemicals
    d) Leave them in the street

Matching

Write the letter of the correct definition on the line next to each term.

Term	Definition
1. ___ Agritourism	A) U.S. leader in pumpkin farming
2. ___ Methane	B) Turning farms into seasonal attractions
3. ___ Composting	C) Millions of pumpkins discarded after Halloween
4. ___ Illinois	D) Using leftover pumpkins to enrich soil
5. ___ Food waste	E) Gas released by rotting pumpkins in landfills

Fill-in-the-Blank

1. Pumpkins belong to the _____ family of plants.

2. Throwing pumpkins in landfills contributes to _____ emissions.

3. Instead of wasting pumpkins, people can cook them into foods such as _____.

Short Answer

Answer each question in 2-4 complete sentences.

1. Why are pumpkins both an agricultural product and a cultural symbol?

_____

_____

_____

2. How does agritourism benefit farmers who grow pumpkins?

3. Why is composting a better solution for pumpkins than sending them to landfills?