

### A Taste of Melon

Suggested Grade Level: Pre-K

Time: 45 minutes

Subject: Science, Nutrition

**Overview:** This lesson will allow students to explore one of Kansas' specialty crops (melons) using their senses and encourage students to form and share their opinions. Later, students will practice their creativity with a melon craft.

## Objectives:

- 1. Students will be able to describe the physical characteristics of melons.
- 2. Students will be able to compare 3 types of melons through using their senses and discuss their experience with the class.
- 3. Students will be able to explain how melons are grown in gardens and on farms.
- 4. Students will be able to demonstrate fine motor skills with a melon stamp craft.

## **Background Information:**

Melons are a type of gourd, *Cucurbitaceae*, that are native to Central Asia and are commonly grown in warm climates. They are popular for their light taste, their high water content, and the fact that they are naturally low-calorie (melon). For this lesson, we will focus on the most popular melons in the United States: cantaloupe, honeydew, and, most importantly—watermelon. Watermelons are technically not *true* melons because they do not have a central seed cavity. Watermelons are a classic American favorite, but their history did not start here. They are native to tropical Africa and have been cultivated for thousands of years globally. Modern watermelons get their bright red flesh and few seeds from centuries of selective breeding (Watermelon). Melons contain many essential health benefits. For example, watermelon is a great source of lycopene and citrulline. Lycopene is an antioxidant that can help improve cholesterol and blood pressure levels, and citrulline is an amino acid that can boost levels of nitric oxide in the body, which relaxes blood vessels and lowers blood pressure (Corlis).

Melons grow best in lighter, well-drained soils with lots of organic matter. They also need a lot of water, especially when they are growing vigorously and setting fruit. However, too much water can cause disease and make the <u>flesh</u> of the fruit less sweet. Melons need at least 6 hours of direct sunlight daily, ideally 8–10 hours. Watermelon <u>vines</u> are hairy, thin, and branching up to 10 feet long. They produce yellow flowers that have to be pollinated by a flying insect, such as a honey bee, to make fruit.

In 2022, about 21.1 pounds of melons were available in the United States per consumer. Watermelon accounted for 14.1 pounds, cantaloupe 5.3 pounds, honeydew 1.6 pounds, and other melons made up the rest. Most U.S. melons are grown domestically, but some are imported during the non-growing season. Watermelon is imported mainly from Mexico, while cantaloupe and honeydew ship mostly from Guatemala and Honduras. These countries have a tropical climate that supports the growth of melons year-round (Economic). Domestically, melons are produced mainly in warm-weather states. Cantaloupes are mostly primarily in California—in 2022, California produced 6,984.5 cwt. California also produced the most honeydew in the same year, at 1,829 cwt. However, Florida produced the most watermelon, at over 9,000 cwt. Georgia came in second, followed by California and Indiana. (Vegetables)

### **Kansas Connections:**

Growing melons in Kansas is challenging. They are referred to as specialty crops. Melons are sensitive to frost and disease, and soil must be around 65 to 70 degrees Fahrenheit to encourage germination. This ideal temperature usually happens around May for much of the state, but late frost is always possible (Upham). A late frost would kill any new emerging seedling, so selecting the time to plant is challenging. To combat these challenges, melon varieties have been bred to survive Kansas conditions. One such melon is called the Kansas Muskmelon, similar to a cantaloupe. This melon is noted for its robust hardiness and resistance to sap beetles, a common pest in North America (Kansas). The Crimson Sweet watermelon was developed at Kansas State University and was specifically bred for hardiness. Other watermelon varieties that perform well in Kansas weather are the Sangria and Allsweet (Kansas State University Research and Extension). Despite the challenges Kansas conditions present, farms in Kansas are very successful at growing melons. In Stafford County, the DeVore Family farms harvest 200 acres of melons between July and September (Bickel).

#### **Materials Needed**

- Fresh melons such as watermelon, cantaloupe and honeydew
- Book "The Watermelon Seed" by Greg Pizzoli
- Small cups or plates for tasting
- Child-safe cutting board set
- Napkins
- Chart paper and markers/pens or stickers
- Paper plates or construction paper
- Non-toxic paint
- Sponges or brushes
- Aprons or old t-shirts

### **Instructional Format:**

- 1. Review background and Kansas connections information.
- 2. Conduct engagement exercises.
- 3. Review Vocabulary.
- 4. Follow the procedures to complete the activities.



# Engagement

- 1. Set out a watermelon, cantaloupe, and honeydew. Briefly introduce the melons to the children.
- 2. Watch "All About Watermelon-Sprouting for Kids" (3:34 minutes long)
  - All About Watermelon Sprouting Interest for Kids
- 3. Encourage students to think about how watermelons are grown on farms and in gardens.
- 4. Introduce the book "The Watermelon Seed" by Greg Pizzoli and have students predict what will happen in the story.
- 5. Read "The Watermelon Seed" by Greg Pizzoli
  - □ The Watermelon Seed | Read Aloud Story Time for Kids | Bri Reads

# Vocabulary

**Melon:** general term for fruit produced by the gourd plant family

**Rind:** The hard outer shell of a melon. Some rinds are smooth (like watermelon), and some rinds have a net-like texture (like cantaloupe)

**Seeds:** The seeds are in the <u>flesh</u> of the melon. New melons can grow from the seeds.

*Flesh:* The inside part of the melon that we eat.

**Vine:** A melon plant stem that climbs or creeps on the ground.

**Texture:** How something feels when you touch it.

#### **Procedures:**

Activity 1: Tasting Together

- 1. Before the activity, cut the watermelon, cantaloupe, and honeydew into bite-sized pieces and place each in a separate bowl.
- 2. Set up a tally chart or a sticker chart with sections for each type of melon.
- 3. Arrange the bowls on a table with small cups or plates for each child. (Make sure to have enough napkins handy.)
- 4. Invite students to taste each type of melon. Point out the size, shape, and <u>texture</u> of the melons. Ask the children: "What color is this melon? Is the inside color different from the outside color?" "How does the outside (rind) feel? Is it smooth or rough?" "How do the melons taste? Are some sweeter than others?"
- 5. Ask each child to share with the class which melon they liked best and why.
- 6. On the tally chart, mark each student's favorite melon.
- 7. Involve students in cleaning up the tasting area.
- 8. (optional) Use some fruit pieces to make a smoothie, as shown in the video.

## Activity 2: Melon Stamping

Note: For this part of the lesson, students should be wearing old t-shirts or aprons.

- 1. Briefly introduce pieces of different melons and their colors (dry them before use.
- 2. Show students how to use the melon pieces as stamps.



- 3. Allow students to cut the melon pieces into different shapes they can use as stamps.
- Let children dip the melon pieces in paint and stamp them onto paper plates or construction paper to create fun designs. Encourage them to explore mixing colors or layering stamps.
- 5. Optional After stamping, they can use markers to add details, like drawing seeds, leaves, or backgrounds around their melon prints.

#### **Kansas Academic Standards:**

Kansas Pre-Kindergarten Guide

Approaches to Learning

• Remembering and following one- or two-step directions.

#### Science

• Demonstrating an understanding of living things that exist in different habitats (e.g., fish can live underwater because they can breathe underwater)

## National Agricultural Literacy Outcomes (K-2)

Plants and Animals for Food, Fiber, and Energy

T2 K2 c. Identify examples of feed/food products eaten by animals and people *Food, Health & Lifestyle* 

T3 K2 a. Identify healthy food options

## **Career Information:** Beekeeper

■ Beekeeper Field Trip | New Words | KidVision Pre-K

Beekeepers are people who raise and care for bees, usually to produce honey, but they may also be kept to pollinate crops or help grow the honey bee population.

### **Supporting Resources:**

George the Farmer: Melons with George the Farmer <a href="https://www.youtube.com/watch?v=QfnSsSuFsiA">https://www.youtube.com/watch?v=QfnSsSuFsiA</a>

Gabe Sky Campbell: Watermelon Day <a href="https://www.youtube.com/watch?v=UcNj2Wlxzsw">https://www.youtube.com/watch?v=UcNj2Wlxzsw</a>

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