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Awesome Apples

Grade Level: Pre-K

Time: 30-45 Minutes

Subject: Science, Nutrition

Overview: This lesson will engage students' senses by examining apples inside and out. Students will explore apples through their senses, make apples out of tissue paper, and get active with a short game.

Objectives:

- 1. Students will be able to identify the basic characteristics of apples.
- 2. Students will describe the physical properties of apples using their senses.
- 3. Students will demonstrate their fine motor skills and creativity with an apple craft.
- 4. Children will display hand-eye coordination and locomotor skills in a fun and engaging game.

Background Information:

Apples provide nutritional benefits essential to young children's growth and development. One medium apple is a full MyPlate serving of fruit. Apples provide essential dietary fiber and antioxidants (like Vitamin C, Vitamin A, and beta-carotene) to the diet and help the body digest other food. Fat-free, sodium-free, and cholesterol-free, apples are an excellent snack choice for every age (Hunter). For this lesson, apples can be divided into five main parts. The <u>skin</u> protects the apple and provides most of the beneficial nutrients. The <u>flesh</u> is the sweet part of the apple. The <u>stem</u> is where the apple connects to the apple tree and where it gets its nutrients. The <u>core</u> is the dense, fibrous part in the middle of the apple that protects the seeds. Finally, the <u>seeds</u> can be planted to grow new apple trees. Apples are a culturally significant seasonal food in the United States, typically harvested in late summer to early fall. They can be eaten raw or made into applesauce, apple pie, applesauce cakes, apple streusels, and more. They can also be juiced to make apple juice or apple cider.

Kansas Connections:

Kansas is not a top producer of apples in the United States. (United) However, apple farming has seen a growth in popularity in Kansas. Apples in Kansas are referred to as a specialty crop. Many commercial <u>orchards</u> exist throughout the state and provide apple-picking activities for the public. There are several (at least 7) apple orchards in the state, including 86th St. Orchard in Topeka; Cider Hill Family Orchard in Kansas City; Pome On the Range Orchards & Winery in Williamsburg; Sunflower Orchards in Paola; The Orchard in Emporia, KS; Wagon Wheel Orchard in Gardner, KS; and South Baldwin Farms in Douglas County. Some of these orchards are called "U pick orchards" and allow people to come to pick fresh fruit directly from the trees. Although apples are grown in all 50 states, apple trees require a cold period called vernalization to produce fruit. Ideally, apple trees should be exposed to temperatures below 45 degrees for several days. Kansas winters naturally provide an adequate cooling period for apple trees to flower and set fruit (Hanrahan). You can learn more about growing apples in Kansas with the following video.

Apples in Kansas

Materials

- Book "Apple Farmer Annie" by Monica Wellington
- Red, yellow, and green apples
- Cutting board sets
- Red, green, and yellow construction paper
- Red, green, and yellow tissue paper
- Scissors (for adult use)
- Glue sticks
- Markers or crayons for adding details (optional)
- Soft, red balls (or beanbags) to represent apples
- A hula hoop or a large circle drawn on the ground (using chalk or tape)

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

Introduction: Begin by showing different types of apples to the class. Ask students: Do you know how an apple grows? Is it a plant? Is it a tree? Watch the video to learn more about how apples grow Life Cycle of an Apple

Discussion Questions:

- 1. "What color is this apple?"
- 2. "What do apples taste like?"
- 3. "Do you know where apples come from?"
- 4. "What is made from apples?"

Vocabulary:

- Skin: the outside layer of an apple that protects the inside.
- **Flesh**: the soft inside part that we eat.



- Seeds: black or brown pieces inside an apple that a new tree can grow from
- **Core**: the center of an apple. It is hard and contains the seeds.
- **Orchard**: a place where apples are grown.
- Blossom: the flowers of apple trees that bloom in the spring
- **Orchardist:** someone who grows apples, an apple farmer.

Read "Apple Farmer Annie" by Monica Wellington aloud to the class.

Apple Farmer Annie Read Aloud

Lesson Part One: Exploring Apples

Procedures:

Demonstration

- 1. Pass around different types of apples. Have students describe how the apples look, smell, and feel.
- 2. After slicing an apple, show the students the inside. Discuss the parts and review the vocabulary words:
 - Skin (outside)
 - Flesh (what we eat)
 - Core (center part)
 - Seeds (little black or brown seeds inside)
- 3. Slice a few apple varieties and let them taste different types (red, green, yellow). Then, ask the class which types they like best.

Activity: Tissue Apples

- 1. You can cut out large apple shapes from construction paper or create large apple-shaped templates for children to trace and cut out independently.
- 2. You can encourage the children to use multiple colors by giving them pieces of tissue paper and having them tear them into smaller shapes.
- 3. Instruct children to glue the tissue paper pieces onto their apple shapes.
- 4. Students can add details, such as stems, leaves, and worms, with markers or crayons (optional).

Game: Apple Toss

- 1. Place the hula hoop or create a circle near where the children will stand.
- 2. Each child takes turns tossing their "apple" into the hoop. Encourage them to try different throwing techniques like underhand or overhand. Or, children can run, hop, slide, dance, etc., while throwing the "apple."
- 3. Count how many apples made it into the hoop in total.



Career Information:

An orchardist is a farmer who manages an orchard, a farm where fruit—or nut-bearing trees or shrubs are grown.

Kansas Academic Standards:

Kansas Pre-Kindergarten Guide Physical Health and Development (pg. 29): -Using locomotor skills with increasing coordination and balance during active play (e.g., runs with a stride, jumps, kicks a ball, uses alternating feet when climbing stairs). Science (pg. 31)

-Exploring and experimenting with familiar and unfamiliar objects to examine how objects move when acted on by force (e.g., pushing, pulling, throwing, twisting, gravity). -Demonstrating an understanding of living things that exist in different habitats (e.g.,

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National Agricultural Literacy Standards:

Plants and Animals for Food, Fiber, and Energy
T2K2 c. Identify examples of feed/food products eaten by animals and people
Food, Health, and Lifestyle
T3 K2 a. Identify healthy food options
Culture, Society, Economy, and Geography
T5 K2 d. Identify plants and animals grown or raised locally that are used for food, clothing, shelter, and landscapes

Supporting Resources:

Blippi - Educational Videos for Kids: Fruit for Kids with Blippi | Apple Fruit Factory Tour

Ring Around Ronina: Apple Farmer Annie by Monica Wellington https://www.youtube.com/watch?v=CIrdZ5ZFXvQ

Wallin, L. (n.d.). *A is for Apples*. National Agriculture in the Classroom. https://agclassroom.org/matrix/lesson/374/

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United States Department of Agriculture. (2011, August 3). *U.S. Apple Production, by State*. USDA Economic Research Service. https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=75112

Hanrahan, J. (2015, January 9). *'Vernalization' Why Plants Need Winter*. Illinois Extension. https://extension.illinois.edu/blogs/garden-scoop/2015-01-09-vernalization-why-plants-need-winter

