

Taste and Teach November - Apples



Five **Fun Facts** About Apples!

- On average, Americans eat more apples than any other fruit.
- 25% of an apple's volume is air. That's why they float in water.
- The four leading varieties of California apples are Gala, Granny Smith, Fuji and Pink Lady®.
- It takes about 36 apples to create one gallon of apple cider.
- Apple trees are not typically grown from seed because it takes about 15 years for an apple tree to grow from a seed until it produces its first apple. Instead, most apple trees are grown by grafting. (Learn about grafting in the January section; walnut trees are also grafted.)

Four **Fun Teaching Ideas!**

- Watch this video on apples from General Produce:
<https://www.youtube.com/watch?v=0HxaCLyPQtE>
- Have students read the story, *The Incredible Apples*. This was the sixth-grade, winning story in the 2015 *Imagine this...* Story Writing Contest! Then, have students write their own creative plots related to apples or another California Grown commodity. Submit the top five entries from your class to the contest by November 1, and your students will have a chance to become published authors! See details in the contest flyer, and watch videos at **LearnAboutAg.org/imaginethis**.
- Compare the earth to an apple! Try the *Apples to Earth* Ag-Bite activity.
- Have students write a poem about apples, using adjectives to describe the 5 senses. See the *A is for Apples* lesson plan.

Explore all the great apple resources in this section!



Apples

Information compiled by the California Foundation for Agriculture in the Classroom

How Produced – Grafting, a horticultural technique that joins two plant structures together, is the first step in apple production to ensure that rootstock and varieties will bare fruit. Once planted, it takes four to five years for the tree to produce the first fruit and will produce fruit for up to 100 years. Most apple varieties are self-sterile, meaning they are unable to pollinate themselves and thus rely upon cross-pollination. The most commonly used pollinator is crab apples (also known as wild apples) in which pollination takes place in the spring, when trees are in blossom. Once pollinated, blossoms fall to the ground and small apples begin to grow in the blossom's place.

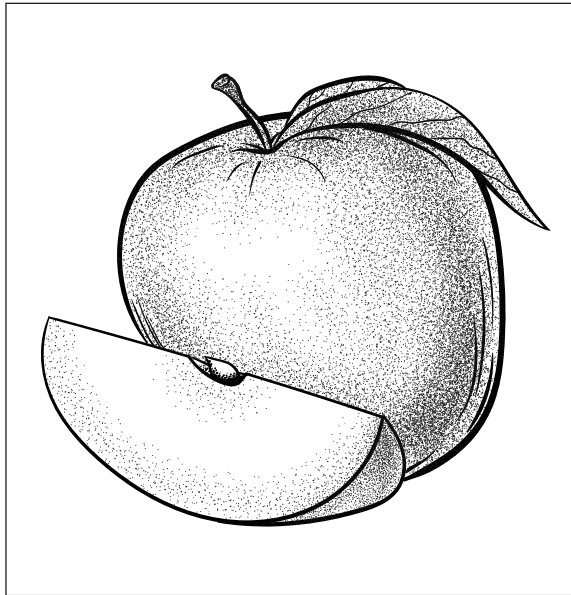
During spring and summer, apple trees require frequent watering. Apple trees can tolerate a great deal of heat if they have sufficient water. The apple crop is harvested by hand in the fall. To insure crop production for the following year, trees must be pruned yearly in the winter to promote new vegetative growth.

History – The first documented history of apples dates back to 300 B.C. in the Persian Empire, where the cultivation and enjoyment of apples was an essential part of civilized life. In the 1400s apples were rediscovered and in the 1500s regained popularity again as a common commodity. During this time, European settlers of the Americas brought with them their English custom varieties, and the first apple orchard was planted in America. William Blackstone was the first pilgrim to plant apples trees grown in the United States in the Massachusetts Bay Colony in 1629.

In the early 1800s, stories began circulating about John Chapman, better known as Johnny Appleseed, who traveled across the Ohio Valley carrying bags of apple seeds. Venturing westward, he planted seeds and grew apple trees wherever he roamed to ensure that settlers living in the western frontier would have nutritious apples to eat. Apples have a place in more recent history, too. In 1962, the first American to orbit the Earth carried pureed applesauce to consume during the flight.

Varieties – The apple, scientifically known as *Malus domestica*, is a member of the rose family. California has almost 13,000 acres dedicated exclusively to apple

production. California grows four main varieties: Gala, Fuji, Granny Smith, and Cripps Pink. Within the United States, roughly 2,500 varieties of apples are grown. The top 10 apple varieties grown within the United States are Red Delicious, Golden Delicious, Fuji, Granny Smith, Rome Beauty, McIntosh, Idared, Jonathan, Gala, and York Imperial.



Commodity Value – The United States' 7,500 apple producers grow approximately 240 million bushels of apples each year on 322 thousand total acres of land. The wholesale value of the United States apple crop is approximately \$4 billion annually. Worldwide, the United States ranks second to China in apple production. California ranks fourth in U.S. apple production, generating 12% of the national apple crop which is approximately 1.5 to 2.5 million (40lb.) boxes of apples per year. Seventy-five percent of

the apples produced in California will be shipped domestically and 10% to 15% are exported. Canada, Malaysia, Mexico, Taiwan, and Panama are five of the 27 global destinations California exports to.

Top Producing Counties – There are five major regions in which apples are grown in California. Historically, apple production was limited to the coastal mountains, the Sierra foothills, and in the Southern California mountains. Recently apple production has expanded into the Central Valley with new plantings of Granny Smith, Fuji, Gala, and other varieties. Important coastal apple producing counties are Sonoma, Santa Cruz, and San Luis Obispo. The major apple production areas are in the San Joaquin Valley with Kern, Fresno, San Joaquin, and Madera counties being the leading producers.

Nutritional Value – One medium-sized apple provides 20% (five grams) of the daily requirement for dietary fiber, 8% of the daily requirement for vitamin C, and is a healthy source of potassium. One apple has approximately 80 calories and contains no fat, cholesterol, or sodium.

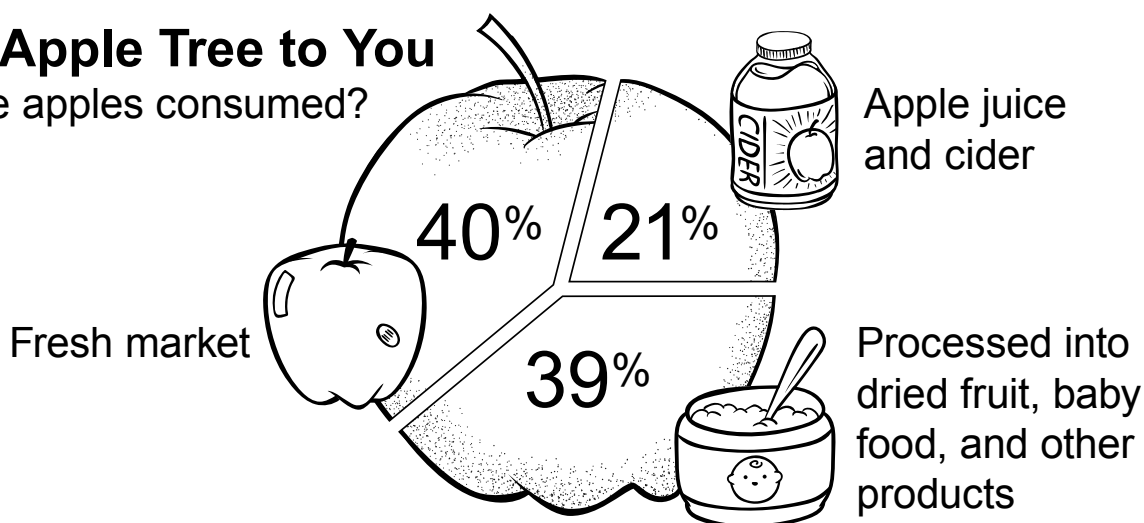
For additional information:
California Apple Commission
Phone: (559) 225-3000
Website: calapple.org



Apples Activity Sheet

From Apple Tree to You

How are apples consumed?



Lesson Ideas

- Dissect and examine the anatomical parts of an apple. Observe and identify the function of each structure.
- Research and explain the aphorism “an apple a day keeps the doctor away” using nutritional information.
- Observe and practice various grafting techniques used to grow apples.
- Compare hand and machine harvesting methods. Invent a harvesting machine for apples.
- Perform experiments that show the different methods of preserving apples.
- Research and determine what the top ten apple varieties are and why they are most popular amongst consumers.
- Calculate the percentage of water weight in apples by dehydrating the fruit.
- Sprout an apple plant from a seed.

Fantastic Facts

1. The crabapple is the only apple native to North America.
2. Apples are propagated by two methods: grafting or budding.
3. The apple variety “Red Delicious” is the most commonly grown apple variety worldwide.
4. Apples are a member of the rose family.
5. Twenty-five% of an apple’s volume is air, which makes it naturally buoyant.
6. It takes the energy from 50 leaves to produce one apple.
7. World’s top apple producers are China, United States, Turkey, Poland, and Italy.
8. Archeologists have found evidence that humans have been enjoying apples since 6500 B.C.
9. Apples account for 50% of the world’s deciduous fruit tree production.
10. Two-thirds of an apple’s fiber and antioxidants are found in the peel.

Lesson Plan: Sugar or Starch

Introduction: Apples naturally contain starch also known as carbohydrates. When an apple begins its ripening process, starches are converted into sugar. This conversion process starts at the core of the apple and moves outward toward the skin. To check the ripeness of the apple an iodine test can be used to identify the amount of starch present.

Objective: Students will investigate the ripening process of apples by conducting an iodine experiment.

Standards: NGSS: 4-LS1-2, 3-5-ETS1-3; CC ELA: L.W.4-5.7

Materials: Variety of apples, iodine tincture, nitrile gloves, safety goggles, paintbrush, knife, paper plates or towels

Procedure:

1. Safety note: Iodine tincture is a hazardous material and should be handled with care. Wash hands after use and avoid contact with the eyes and skin.
2. Place individual, whole apples on labeled plates (1, 2, 3, 4,

etc.) and instruct students to observe each apple’s size, color, texture, and firmness. Have students hypothesize, based on their previous knowledge, which apples are at peak ripeness.

3. Cut apples in half, displaying both sides of the apples on each labeled plate. Have students observe each apple’s internal characteristics.
4. With the paintbrush, evenly apply iodine across the cut surface of each top apple half. Let the apple sit for two minutes. Leave the other apple half untouched as a control to compare changes in each apple.
5. Observe the surfaces of the apples. Large amount of purple indicates high starch/low sugar. Little to no purple indicates low starch/high sugar.
6. Place apples on a continuum from least to most ripe. Make concluding observations.
7. Write a conclusion paragraph on your experimental findings.



Comparing Apples and... Earth?

Explore how much of the Earth's surface is needed for growing food for a world of people.

Grades 3-5

Activity

1. Hold up an apple to the class and tell the students that it represents Earth.
2. Slice the apple into fourths. Set aside three of the fourths, as they represent water on the Earth's surface.
3. Cut the remaining slice in half. Set aside one of the halves as uninhabited deserts, swamps and Arctic areas.
4. Divide the remaining piece into fourths. Set aside three of the pieces for land that is too rocky, wet, hot, or poor for crop production.
5. The remaining piece is $\frac{1}{2}$ of the original apple. Carefully, peel this section. Hold up the peel and explain that it represents the thin layer of soil that is available for producing all of the world's food crops.

Classroom Discussion

- What is the key message underlying the activity?
- What actions can students take to care for their patch of this precious Earth—as individuals, as a class and school, with their families, in their community?
- How are farmers stewards of the land?
- What is sustainability? Introduce the concepts without using the word itself, which can be difficult to define. Produce concept maps based on discussion.
- How do natural resource management, farming techniques, feeding the world, land care, and environmental management play a role in food production in California or your specific region?



Materials

Enough for each student:

- Apple (or a paper cutout of an apple)
- Knife
- Chopping board or plates
- Paper towels or wet wipes

Tip

A demonstrator could cut one apple and students eat an approximate amount.

Watch Online!

See a video of this Ag-Bite at LearnAboutAg.org/agbites

California Standards:

Grade 3

Math CC: 3.NF.1
NGSS: 3-LS4-4

Grade 4

Math CC: 4.NF.3a, 3b
NGSS: 4-ESS3-1

Grade 5

Math CC: 5.NF.2
NGSS: 5-ESS3-1

Classroom Activities

English Language Arts/History

- Have students journal about this activity, what they learned from the demonstration, and different ways they can take care of the Earth.
- Research different farming practices used in the past and create a chart with the pros and cons of each one. Report your findings to the class.

Visual and Performing Arts

- Create art stamps using different tools (paperclip, toothpick, popsicle stick) to make designs in the apple pieces. Mix paints to produce different colors and dip the stamps in paint to create art.
- Use the activity as a prompt or an example for students to produce a game, puzzle, poster or other means of delivering a similar message.

Adapted from materials by the Natural Resources Conservation Service

Imagine this...



The Incredible Apples

By Jaden Fontes

2015 *Imagine this...* Story Writing Contest Winner

6th Grade, St. Stanislaus Catholic School

Judee Sani, Teacher

Stanislaus County

Hello, my name is Mac McIntosh, and I am the Super Duper Orchard Hero. I have three best friends, Ferris Fuji, Gary Gala, and Hank Honeycrisp. We are the Fantastic Four. My superpower is super speed. My buddy, Ferris, is the flier, Hank has super strength, and Gary can disappear into thin air and withstand harsh weather.

We grew up together in our orchard. Granny Smith took care of us. We were orphans in the beginning; four poor apples in a bushel of Red Delicious. That farmer just left us all alone because we were not the same as the others, but Granny did not care. She loved us anyway. One day, we were playing in our orchard, when we heard a truck pull up and a big cloud of dust engulfed us. We went running to see what was up. Out of the truck, rolled a fine Pink Lady®. YOWZA!! I got bit by the love bug.

After that, I was always trying to impress Penny Pink Lady®, but one day, I looked all over for her and she was missing. I knew it had to be the orchard villain, Benny Bruiser. He knew that would get to me. We had to find her, after all, she was my Pink Lady®. Penny hated Bruiser, and I knew she had to be scared.

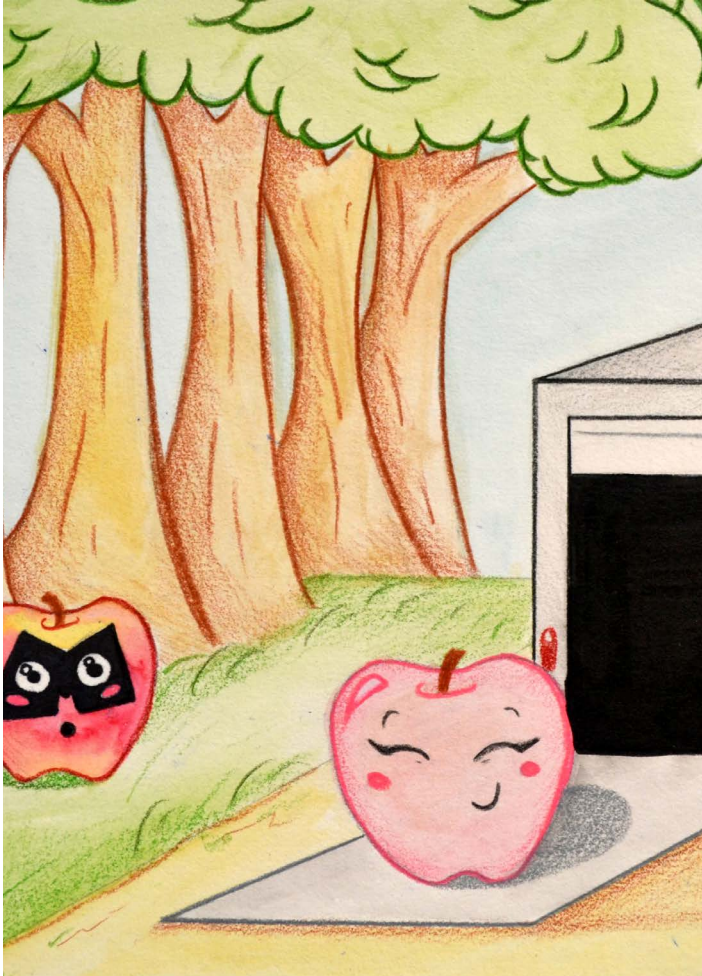
My buddies and I got together to make a plan. It was a foggy evening; we could not see much that night. I told Ferris to fly around the perimeter of the orchard. He took Gary with him to search for any evidence. Sure enough, they saw Penny Pink Lady® tied up. She was being guarded by that crazy Apple Jack.

Gary made himself invisible to look for Bruiser. Soon, Gary signaled to us; they were four rows away. I grabbed Bruiser by his stem, spun him around faster than the speed of light. Ferris flew in and punched him right in his core and Hank turned Bruiser into apple sauce.

From that day forward, Penny was pie in my hands. We knew we were meant to be; we got married and had four super fritters of our own. We had three boys and one girl: Cortland, Jonathan, Spy, Ida, and our dog, Spartan.

We were hoping one of them would have a super power, but no... it was a complete turnover. Later in life, we did find that Spartan has the super power of elasticity—he could stretch like caramel on an apple and had the ability to poop apple dumplings. That has nothing to do with this story really, just a little crisp humor. With his elasticity power, he protects our family. Spartan is the protector of our orchard. He keeps out all of the crazy cobblers with his stretching abilities. Thanks to him, we will always be a safe bunch.

**Learn more about the “Imagine this.. Story Writing Contest”
by visiting LearnAboutAg.org/imaginethis**



A is for Apples

Grade Levels

K - 2

Purpose

Students will use the five senses to investigate apples, identify and model the parts of an apple, make applesauce, and learn how apples are grown.

Estimated Time

1.5 hours

Materials Needed

Interest Approach – Engagement:

- *Up, Up, Up! It's Apple-Picking Time* by Jody Fickes Shapiro

Activity 1: Five Senses Apple Investigation

- Red, yellow, and green apples
- Cutting board
- Knife
- [5 Senses Chart](https://cdn.agclassroom.org/media/uploads/2015/11/09/5_Senses_Chart.pdf) (https://cdn.agclassroom.org/media/uploads/2015/11/09/5_Senses_Chart.pdf), 1 per student
- Red, yellow, and green interlocking cubes
- [Apple Book Template](https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Book_Template.pdf) (https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Book_Template.pdf)
- Red, yellow, or green card stock, 2 pieces per student
- Lined paper, 5 pieces per student
- Hole punch
- Ribbon

Activity 2: Identifying Parts of an Apple

- Apple
- Cutting board
- Apple slicer
- Knife
- 1 set of [Apple Parts Cards](https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Parts_Cards.pdf) (https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Parts_Cards.pdf)

Activity 3: Apple Model

- Example of *Apple Model* (make your own following the instructions in *Activity 3*)
- 4.5" (11.43 cm) x 9" (22.86 cm) yellow, red, or green construction paper
- 5" (12.7 cm) x 9" (22.86 cm) white construction paper
- 1" (2.54 cm) x 3" (7.62 cm) brown construction paper
- Brown, green, and black construction paper
- Glue sticks
- [Apple Parts Cards](https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Parts_Cards.pdf) (https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Parts_Cards.pdf), 1 set per student

Activity 4: Making Applesauce

- Slow Cooker
- [Crock Pot Applesauce](https://cdn.agclassroom.org/media/uploads/2018/03/26/Crock_Pot_Applesauce.pdf) (https://cdn.agclassroom.org/media/uploads/2018/03/26/Crock_Pot_Applesauce.pdf) recipe
- Apple peeler corer slicer
- 8 tart apples
- 1 cup (140 g) sugar
- 1 teaspoon (4 g) cinnamon
- 2 cups (480 mL) water
- 2 tablespoons (30 mL) lemon juice
- Liquid measuring cup
- Teaspoon
- Wooden spoon
- Plastic cups, 1 per student
- Plastic spoons, 1 per student

Essential Files (maps, charts, pictures, or documents)

- [5 Senses Chart](https://cdn.agclassroom.org/media/uploads/2015/11/09/5_Senses_Chart.pdf) (https://cdn.agclassroom.org/media/uploads/2015/11/09/5_Senses_Chart.pdf)
- [Apple Book Template](https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Book_Template.pdf) (https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Book_Template.pdf)
- [Apple Parts Cards](https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Parts_Cards.pdf) (https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Parts_Cards.pdf)
- [Crock Pot Applesauce Recipe](https://cdn.agclassroom.org/media/uploads/2018/03/26/Crock_Pot_Applesauce.pdf) (https://cdn.agclassroom.org/media/uploads/2018/03/26/Crock_Pot_Applesauce.pdf)

Vocabulary Words

calyx: what is left of the apple blossom

flesh: the sweet part of the apple that you can eat

orchard: a piece of land planted with fruit trees

seeds: can be used to grow new apple trees, but it takes a long time

skin: covers and protects the apple's flesh and seeds

stem: attaches the apple to the apple tree, bringing water and nutrients to the apple

Did You Know? (Ag Facts)

- On average, Americans eat more apples than any other fruit.²
- It takes about 36 apples to create one gallon (3.78 L) of apple cider.²
- 25% of an apple's volume is air; that's why they float in water.²

Background Agricultural Connections

The average American consumes approximately 65 apples a year. There are over 7,500 varieties of apples in the world and about 2,500 varieties are grown in the United States. Apples are the fruit of apple trees. They have green, red, pink, or yellow skin and are used to make apple juice, cider, vinegar, applesauce, and many kinds of salads and desserts.

Apple trees grow in all 50 states, but for efficient fruit production they require a cold period called vernalization. Vernalization takes place during the cold winter months while an apple tree is dormant. Without this cold period, apple trees will not develop sufficient flower buds to produce a good crop of apples. The top three apple producing states in the US are Washington, New York, and Michigan.¹ All three of these states have a significant winter season.

Apple trees are not typically grown from seed because it takes about 15 years for an apple tree grown from seed to produce an apple. Instead, most apple trees are grown by budding or grafting onto rootstocks—sections of tree roots still attached to a part of the tree trunk. Budding involves taking one bud from an existing tree branch and attaching it under the bark of a rootstock with special grafting tape or glue. Grafting is similar, but rather than a single bud, a section of a stem with multiple leaf buds is attached to the rootstock with grafting glue and tape. Grafted or budded trees usually grow in a nursery for about one year before being planted in an **orchard**.

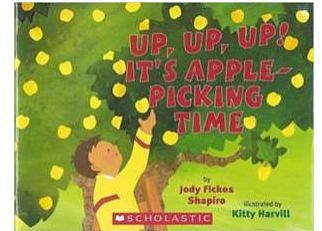
An apple can be divided into several parts. The **skin** covers and protects the apple's **flesh** and **seeds**. The **flesh** is the sweet part of the apple. The **stem** is what attaches the apple to the apple tree, bringing water and nutrients to the apple. The **seeds** can be used to grow new apple trees. The **calyx** is what is left of the apple blossom.

Honeybees are commonly used to pollinate apple trees. Almost all varieties of apples require cross-pollination, meaning that pollen from a different variety is needed to produce fruit. Apple trees require full sunlight and well-drained soil. Most apples are ready to harvest in the late summer or early fall.

We've all heard the saying, "An apple a day keeps the doctor away." While eating apples does not guarantee good health, apples do have healthy benefits. Apples are naturally fat-, sodium-, and cholesterol-free and are an excellent source of dietary fiber and antioxidants. A medium apple contains about 80 calories and is loaded with vitamin C and beta-carotene. Be sure to eat the skin. Most of the fruit's antioxidants, vitamin C, and fiber are located in, or just under, the skin.

Interest Approach - Engagement

1. Read the book *Up, Up, Up! It's Apple-Picking Time* by Jody Fickes Shapiro. As you read, discuss the following questions with the students:
 - *Where do apples grow?*
 - *What colors can apples be?*
 - *What are apples used for?*
2. After reading the book and answering the questions, transition to *Activity 1* by telling students they will be learning more about about apples and their senses.



Procedures

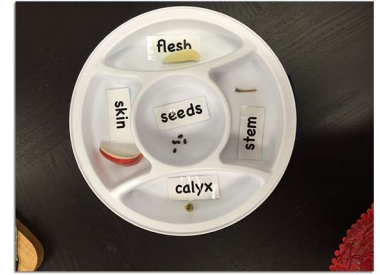
Activity 1: Five Senses Apple Investigation

1. Before beginning this activity, students should wash their hands.
2. Ask students to identify their five senses—see, smell, feel, hear, taste. Explain that they will be using their five senses to observe apples. Give each student a [5 Senses Chart](https://cdn.agclassroom.org/media/uploads/2015/11/09/5_Senses_Chart.pdf) (https://cdn.agclassroom.org/media/uploads/2015/11/09/5_Senses_Chart.pdf).
3. Show students the three different types of apples. Ask them to describe what they see. Point out the skin, stem, and calyx. The calyx is the remaining part of the apple blossom located on the end of the apple opposite of the stem. Cut an apple in half crosswise. Ask the students to describe what they see. Point out the shape of the star, the seeds in the star pockets, and the flesh. Write their descriptive words on the board (as pictured) under the "See" column. Explain that descriptive words are called adjectives. The students should choose at least two adjectives to write on their own *5 Senses Chart*. At the end of the activity, they will use the adjectives on their chart to write a poem about apples.
4. Cut each apple into slices. Give a green, red, and yellow slice to each student. Ask them to smell the apples and describe what they smell. Write their adjectives on the poster under the "Smell" column and have them write at least two adjectives on their chart.
5. Ask the students to feel the apple slices and describe what they feel. Write their adjectives on the poster under the "Feel" column and have them write at least two adjectives on their chart.
6. Ask the students to take a bite out of one apple slice and describe what they hear. Write their adjectives on the poster under the "Hear" column and have them write at least two adjectives on their chart.
7. Ask the students to taste each slice of apple and describe what they taste. Write their adjectives on the poster under the "Taste" column and have them write at least two adjectives on their chart.
8. Ask the students to vote on whether they like red, green, or yellow apples best by choosing a red, yellow, or green interlocking cube. Stack the cubes together by color, and create a bar graph to show the preferences of the whole class.
9. Each student will choose adjectives from their *5 Senses Chart* to create a poem about apples. For each sense, they will write a sentence about the apples they were able to see, smell, feel, hear, and taste. Using the "Apple Book" template, cut a front and back cover and five pages. Write each sentence on one page of the book. Secure the book using a hole punch and ribbon.



Activity 2: Identifying Parts of an Apple

1. Prior to class, print and cut out one set of the [Apple Parts Cards](https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Parts_Cards.pdf) (https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Parts_Cards.pdf) to use as labels throughout this demonstration. Explain to the students that they are going to learn about the different parts of an apple.
2. Cut an apple with an apple slicer. Peel the skin off of one slice. Ask students what it is. Explain that the skin covers and protects the apple's flesh and seeds. Label the skin by placing it next to the "skin" card.
3. Show the students the peeled apple slice's flesh. Explain that the flesh is the sweet part of the apple that you can eat. Place the flesh by the "flesh" card.
4. Pull the stem off of the apple core. Ask students what it is. Explain that the stem is what attaches the apple to the apple tree, bringing water and nutrients to the apple. Place the stem by the "stem" card.
5. Pull some seeds out of the core. Ask the students what they are. Explain that the seeds can be used to grow new apple trees. It takes a long time to grow a new apple tree from seeds. Place the seeds by the "seed" card.
6. Slice the bottom off of the core. Show the students the calyx. Explain that apples develop from flowers. The calyx is what is left of the apple blossom. Place the calyx with the "calyx" card.



Activity 3: Apple Model

1. Explain to the students that they will be making a paper model of the parts of an apple.
2. Show the students the example model. Point out each part reviewing what was taught in *Activity 2*. The skin covers and protects the apple's flesh and seeds. The flesh is the sweet part of the apple. The stem is what attaches the apple to the apple tree, bringing water and nutrients to the apple. The seeds can be used to grow new apple trees. The calyx is what is left of the apple blossom.
3. Give each student two pieces of either red, yellow, or green construction paper. Have them cut the top and bottom shape of an apple and bite marks on the straight lines to represent the apple's skin. Glue the colored papers on each end of the white rectangle, which represents the apple's flesh.
4. Glue the brown rectangle on top of the apple to represent the stem. Cut the green paper into the shape of a leaf and attach it to the bottom of the stem.
5. Cut a brown piece of paper to form the shape of a calyx and glue it onto the bottom of the apple.
6. The black paper can be cut into the shape of seeds and attached to the flesh of the apple.
7. Cut out the [Apple Parts Cards](https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Parts_Cards.pdf) (https://cdn.agclassroom.org/media/uploads/2015/11/09/Apple_Parts_Cards.pdf). Read the cards together and have the students label each part of their apple by gluing the cards in place.



Activity 4: Making Applesauce

1. Before beginning this activity, students should wash their hands.
2. Explain to the students that apples are used to make apple juice, cider, vinegar, applesauce, and many different kinds of salads and desserts. Today they will be making and tasting homemade applesauce.
3. Explain the process of making applesauce to the students. Show the students the [applesauce recipe](https://cdn.agclassroom.org/media/uploads/2018/03/26/Crock_Pot_Applesauce.pdf) (https://cdn.agclassroom.org/media/uploads/2018/03/26/Crock_Pot_Applesauce.pdf), pointing out the ingredients list and directions.
4. The apples need to be peeled, cored, and sliced. Show the students how the apple peeler corer slicer works and which parts are sharp. Allow students to take turns using it to peel, slice, and core the apples.
5. Allow students to place the apples into a large slow cooker and mix in cinnamon and sugar. Several students can take turns mixing with a wooden spoon. Pour water and lemon juice over the apples. Cook on high for 3-4 hours until the apples are soft. Your classroom will smell wonderful!
6. When the apples are ready, allow students to take turns mashing the apples into applesauce using the potato masher. Give each student a cup of applesauce to taste.

Concept Elaboration and Evaluation:

After conducting these activities, review and summarize the following key concepts:

- Apples are a fruit that can be eaten fresh or made into applesauce, apple cider, or apple juice.
- Apples grow on trees.
- An area where apple trees grow is called an *orchard*.
- The five senses are sight, smell, hearing, touch, and taste.



We welcome your [feedback](https://usu.co1.qualtrics.com/jfe/form/SV_4HhIVpN4L8IC2IT) (https://usu.co1.qualtrics.com/jfe/form/SV_4HhIVpN4L8IC2IT)! Please take a minute to tell us how to make this lesson better or to give us a few gold stars!

Enriching Activities

- View the video [How Apples are Grown and Harvested](https://www.youtube.com/watch?v=DhDaE85ZCEc) (https://www.youtube.com/watch?v=DhDaE85ZCEc) to learn more about the apple growing and harvesting process.

Sources

1. http://www.usapple.org/index.php?option=com_content&view=article&id=179&Itemid=285
(http://www.usapple.org/index.php?option=com_content&view=article&id=179&Itemid=285)
2. <http://www.nyapplecountry.com/about/fun-facts> (http://www.nyapplecountry.com/about/fun-facts)

Suggested Companion Resources

- [Farm Pop-Ups](https://www.agclassroom.org/matrix/resource/132/) (https://www.agclassroom.org/matrix/resource/132/)
- [Apples](https://www.agclassroom.org/matrix/resource/206/) (https://www.agclassroom.org/matrix/resource/206/)
- [Apples for Everyone](https://www.agclassroom.org/matrix/resource/348/) (https://www.agclassroom.org/matrix/resource/348/)
- [Apples to Oregon](https://www.agclassroom.org/matrix/resource/1045/) (https://www.agclassroom.org/matrix/resource/1045/)
- [Applesauce Day](https://www.agclassroom.org/matrix/resource/824/) (https://www.agclassroom.org/matrix/resource/824/)
- [Bring Me Some Apples and I'll Make You a Pie](https://www.agclassroom.org/matrix/resource/414/) (https://www.agclassroom.org/matrix/resource/414/)
- [From Apples to Applesauce](https://www.agclassroom.org/matrix/resource/310/) (https://www.agclassroom.org/matrix/resource/310/)
- [Fruit Bowl](https://www.agclassroom.org/matrix/resource/1108/) (https://www.agclassroom.org/matrix/resource/1108/)
- [How Do Apples Grow?](https://www.agclassroom.org/matrix/resource/317/) (https://www.agclassroom.org/matrix/resource/317/)
- [How to Grow an Apple Pie](https://www.agclassroom.org/matrix/resource/1104/) (https://www.agclassroom.org/matrix/resource/1104/)
- [Johnny Appleseed](https://www.agclassroom.org/matrix/resource/919/) (https://www.agclassroom.org/matrix/resource/919/)
- [My Family's Farm Book Series](https://www.agclassroom.org/matrix/resource/1006/) (https://www.agclassroom.org/matrix/resource/1006/)
- [No Ordinary Apple: A Story About Eating Mindfully](https://www.agclassroom.org/matrix/resource/1015/) (https://www.agclassroom.org/matrix/resource/1015/)
- [Our Apple Tree](https://www.agclassroom.org/matrix/resource/1097/) (https://www.agclassroom.org/matrix/resource/1097/)
- [The Apple Orchard Riddle](https://www.agclassroom.org/matrix/resource/170/) (https://www.agclassroom.org/matrix/resource/170/)
- [The Apple Pie Tree](https://www.agclassroom.org/matrix/resource/349/) (https://www.agclassroom.org/matrix/resource/349/)
- [Up, Up, Up! It's Apple-Picking Time](https://www.agclassroom.org/matrix/resource/279/) (https://www.agclassroom.org/matrix/resource/279/)
- [Apples](https://www.agclassroom.org/matrix/resource/696/) (https://www.agclassroom.org/matrix/resource/696/)

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