



**Foods of the Month**  
**Fun, Experiential Activities**

# Apples & Pears

## Grades 3-5



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## Jack-O-Lanterns from Apple Stamping!

Gather together:

- Apples (can use older apples that have lost some of their crispness – a *perfect craft* to do when you're about to throw away old apples!)
- Orange paint
- Black paint
- Brown paint
- Paper
- Knife (for adults only!)

Step 1 – Create Your Pumpkin's Face

Cut apple in half, carve out eyes and mouth of "pumpkin."

Step 2 – Dip Your Apple

Dip apple into orange paint (making sure the front of the apple is completely covered with paint).

Firmly press the apple onto the paper.

Step 3 – Finishing Touches

Once *Jack-O-Lanterns* are dry, fill in the eyes, nose and mouth with black paint.

Use brown for the stem if desired.



Adapted from: <http://www.craftsbycourtney.com/how-to-crafts/jack-o-lantern-apple-stamping-art/>

### Experiment: Apples Turning Brown!

Try this fun experiment to show the children some liquids that prevent apples from turning brown!

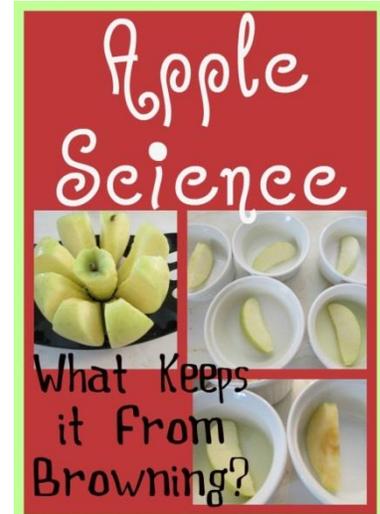
Gather together:

- Typical kitchen liquids (vinegar, milk, lemon juice, baking soda mixed with water, etc.) to soak the apples in during the experiment. Make sure that lemon juice is one of the liquids used in the experiment!
- Bowls for each liquid, plus one that will be used to hold only apple slices (no liquid in this bowl).
- A few apples to slice when the experiment begins

Instructions:

1. Pour some of each liquid into individual bowls – don't mix liquids.
2. Leave one bowl empty of liquid to serve as the control for the experiment (the bowl where nothing is done to the apple).
3. Label each bowl so you know what liquid is in each, and write "control" for the bowl that will contain just apple slices.
4. Then, slice the apples then put slices into each bowl. Toss slices so they are coated with the liquids.
5. Let the apples soak at least an hour.
6. After an hour, discuss with the children what reactions took place and which worked best to prevent browning of the apples.

Explain to the children that lemon juice helps keep the apple from browning because it is full of ascorbic acid (Vitamin C). Ascorbic acid works to prevent browning because it acts as a block to the oxygen that normally would turn the apple brown. But as soon as the ascorbic acid gets used up, the oxygen will start reacting with the enzymes in the apple and browning will occur.



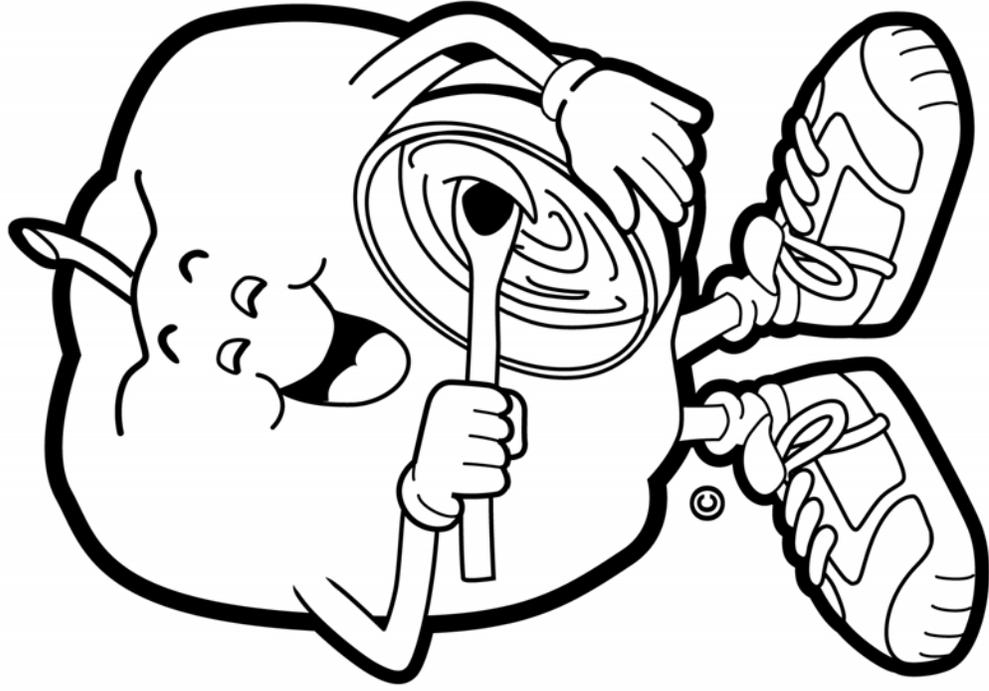
Adapted from: <http://teachbesideme.com/apple-science/>

# Fun Facts About Apples

**My name is Anthony Apple.**

*Did you know that...?*

- Apples are a fruit.
- Apples are members of the rose family.
- There are more than 7,500 varieties of apples grown worldwide.
- More than half of all the apples grown in the United States for fresh eating are grown in Washington State.
- Apples are ripe when picked. Ripe apples are crisp and juicy.
- The most popular variety of apple in the United States is Red Delicious.
- The apples from one tree can fill 20 boxes every year. Each box weighs 42 pounds.
- Apples are high in fiber.
- Fresh apples float. Do you know why? It's because 25 percent of their volume is air!
- About half of the apples grown in the United States are sold fresh; the other half are processed into apple juice, applesauce, and dehydrated apple products.
- Americans eat an average of 19.6 pounds of fresh apples each year.
- One medium apple counts as one 5 A Day serving of fruit.
- One medium apple contains just 70 calories and is a good source of dietary fiber and vitamin C.
- The Spanish word for apple is *manzana*.
- The French word for apple is *pomme*.
- The Italian word for apple is *mela*.
- The German word for apple is *Apfel*.





## Foods of the Month Fun, Experiential Activities

### How Do Pears Grow and Ripen?

Pears need a location with good air circulation where the ground is slightly elevated and sloping because the trees bloom early and the flowers may be damaged in the spring by frosty air, which settles in low-lying areas. Pears should be grown in heavier soil types and will not survive on ground that is saturated with water.

The pear tree has glossy leaves and white flowers grouped in corymbs, which are pollinated to become the edible fruit. In early spring, bees help the pear trees pollinate from flower to flower on the different pear trees. During the growing season, pear orchards need the ideal warm days and cool nights that are found in California, Oregon, and Washington regions.

Pears do not ripen properly on the tree so growers pick the fruit when it is mature but green. Pears are harvested by hand, placed into bins, and transported to a packing house. The pears are graded for quality, sorted by size, and packed for the fresh market or sent to a processing facility. They are cooled to slow down the ripening process. *To initiate ripening, pears need to be brought to room temperature.*

Source: <http://harvestofthemonth.cdph.ca.gov/Pages/default.aspx>



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## Jumping Apple Seeds

Try this fun, very easy activity with apple seeds!

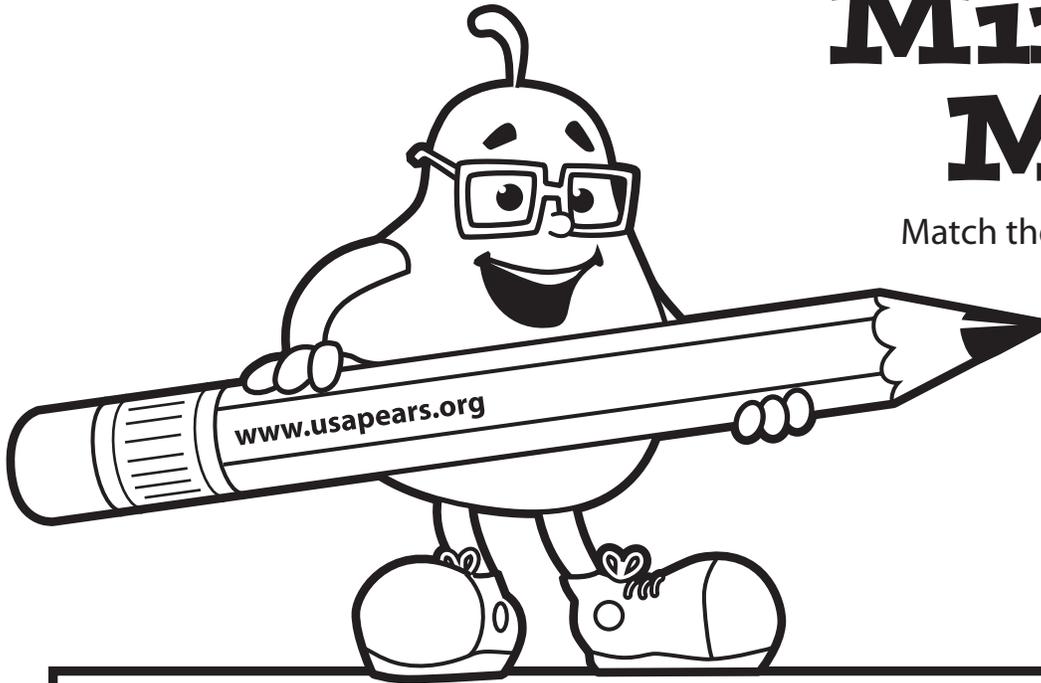
- Combine 1 teaspoon of baking soda with 1/2 cup water in a large plastic cup.
- Then drop apple seeds into the water, along with 1 tablespoon of lemon juice (or vinegar).
- Then watch the seeds jump around!



Adapted from: <http://teachingmama.org/8-apple-activities-for-preschoolers/>

# Mix and Match

Match the term with the definition



**Fiber**

**Vitamin C**

**Potassium**

**Fructose**

**Pectin**

**Antioxidant**

**Lignin**

**Peel**

- A. The outer skin which contains much of a pear's nutrients.
- B. A simple sugar that naturally occurs in fruits.
- C. Substances found in food that protect cells from the damage caused by unstable molecules known as free radicals.
- D. An insoluble form of fiber which helps foods pass more quickly through the stomach and intestines.
- E. An antioxidant essential for normal metabolism, growth and development, and regulation of cell function.
- F. A soluble form of fiber, which slows digestion and helps your body absorb vital nutrients from foods.
- G. A substance found in fruits, vegetables, and grains. It is an important part of a healthy diet.
- H. A mineral that is used by your body to regulate fluid and minerals.



### Pear Stamping Fun!

Gather Together:

- Pears
- Green paint
- Brown paint
- Paper
- Knife (for adults only!)

Instructions:

1. Cut your pear in half.
2. Create a stamp by dipping the pear half in the green paint and gently stamping it onto the paper.
3. Use a little bit of brown paint to paint stems on the stamped pears.



Adapted from: <http://www.craftsbycourtney.com/how-to-crafts/pear-stamping/>

### Taste Test: Pears by Color!

#### What You Will Need:

- Variety of red, yellow, green, and brown pears, whole and quartered\*
- One pear variety per every four students
- Whiteboard or chalkboard
- Dry erase markers or chalk

#### Activity:

1. Divide students into four groups, according to the color of the pears (red, yellow, green, and brown pears).
2. Make four columns on the whiteboard: red, yellow, green, and brown.
3. Each group observes, smells, feels, and tastes their assigned pear.
4. Note the different features in the columns on the whiteboard.
5. Use descriptive sensory words like sweet, fragrant, yellow, grainy, crunchy, etc.
6. Discuss the similarities and differences in the four groups.
7. Everyone then samples the other colors of pears.

\*To reduce browning (oxidation), cut pears immediately before tasting.

Adapted from: <http://harvestofthemonth.cdph.ca.gov/Pages/default.aspx>

### A Slice of Pear History

- Pears date back to ancient times as one of the earliest cultivated fruit trees. The Romans used special grafting techniques to develop more than 50 varieties of pears, which were introduced to other parts of Europe with the rise of the Roman Empire.
- The Bartlett pear was developed in England in the 17th century by a schoolmaster named John Stair. He sold some cuttings from a pear tree (which are used for grafting, a technique for developing new trees and fruit varieties) to a horticulturist named Williams, who further developed the variety and renamed it after himself.
- Early Americans brought pear seedlings across the Atlantic to the Massachusetts Bay Colony. In 1812, nurseryman Enoch Bartlett discovered the pear variety and, unaware of the pear's true name, distributed it as a "Bartlett." However, it is still known as the "Williams" pear around the world. Bartlett cuttings eventually came west when the forty-niners headed for the great California Gold Rush and they continue to grow in California today.
- There are more than 3,000 varieties of pears worldwide.
- Ninety-eight percent of all pears grown in the United States are grown in California, Oregon, and Washington.
- The Bartlett pear variety is America's favorite pear.
- Pears ripen better off the tree and from the inside out.
- Pears are best when eaten with the peel, as that is where most of the fiber and antioxidants are found.
- Pears are processed into canned pears, fruit cocktail, juice concentrate, baby food products, and can be dried.
- The wood of pear trees is one of the preferred materials in the manufacture of high quality woodwind instruments.

Source: <http://harvestofthemonth.cdph.ca.gov/Pages/default.aspx>



## Foods of the Month Fun, Experiential Activities

### Fun with Food: “Cooking” Pear Frisbees

Makes 36 tastes (2 rice cakes with yogurt, each)

Ingredients:

- 1 (29-ounce) can pear chunks in light syrup, drained
- 4 (6-ounce) containers lowfat vanilla Greek yogurt
- 3½ ounces mini rice cakes

Instructions:

1. Spoon yogurt into a large bowl.
2. Add pears and gently stir until just blended.
3. Place 1 teaspoon of yogurt and 2 pear chunks on top of each rice cake.
4. Place 2 rice cakes on small plate/paper towel for each child.
5. Serve immediately.

Adapted from: <http://harvestofthemonth.cdph.ca.gov/Pages/default.aspx>



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# Winter Squash

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## Butternut Squash Turkey!

If the end of Halloween left you with some leftover gourds and butternut squashes, turn one into a cute and easy turkey to get in the spirit of the next holiday - Thanksgiving of course!

Send the kids outside to collect leaves to make this feathered turkey that would also make an adorable centerpiece for your Thanksgiving table.

### Materials:

- Butternut squash (or long necked shaped gourd)
- Leaves
- Googly eyes
- Yellow and red paper
- Scissors, glue, tape



### Instructions:

It's pretty simple and as you see it. Tape or glue leaves on the back of the squash to form "feathers." Glue on the eyes, a small yellow triangle and red, long tear-drop shape for the wattle. You're done!

Adapted from: <http://www.hellowonderful.co/post/CUTE-BUTTERNUT-SQUASH-TURKEY-CRAFT>

### Fun Facts about Squash (and a cool recipe-in-a-pumpkin)!

- For pie, Pilgrims first hollowed out a pumpkin, filled it with apples, sugar, spices and milk, then put the stem back on and baked. Have you all tried this? (perhaps bring in cooked pumpkin after using the recipe on the next page)
- One of the first published recipes for pumpkin pie (Pompkin Pudding) was in Amelia Simmons' **1796** cookbook, *American Cookery*. This the first cookbook to be written by an American and published in the United States <<http://www.loc.gov/exhibits/treasures/tri054.html>>
- An average pumpkin weighs 10-20 pounds, though the Atlantic Giant variety can weigh 400-600 pounds, enough for perhaps **300** pies!
- Presidents Washington and Jefferson grew squash in their gardens. Do you?!!
- The Hubbard squash was formally introduced to American gardens by James J. H. Gregory (1857) from Marblehead, Massachusetts. He became an authority on squashes, publishing in **1893**, *Squashes: how to grow them*.
- Squashes are a good source of minerals, carotenes and vitamin A, with moderate quantities of vitamins B and C. Summer squash is high in water content, thus low in calories.
- And why is the game also called squash? It used to be called "Rackets" and a "squashy" soft ball constructed of thin rubber was used. It had a number of holes that caused the ball to collapse when hit hard.

Adapted from: <https://www.loc.gov/rr/scitech/mysteries/squash.html>

## **Baked Pumpkin with Apples, Cranberries and Walnuts**

The BEST side dish you will make for Thanksgiving or a family meal!

### **Ingredients**

- 1 pie pumpkin (<http://www.wisegeek.org/what-are-pie-pumpkins.htm>)
- 1 cup fresh cranberries or ¼ cup dried
- 2 apples, peeled and chopped
- 1 cup walnuts, chopped
- ½ cup brown sugar
- ½ teaspoon cinnamon
- 1 tablespoon butter

### **Instructions**

1. Preheat oven to 350 degrees and set out a cookie sheet
2. Cut the top off the pumpkin and clean out the inside
3. Peel and chop the apples and place in a medium bowl
4. Add the cranberries, nuts, brown sugar and cinnamon, stir well
5. Spoon mixture into pumpkin and dot with butter
6. Place pumpkin on cookie sheet
7. Bake for 1½ hours at 350 degrees or until pumpkin is tender inside



Adapted from: <http://hoosierhomemade.com/baked-pumpkin-with-apples-cranberries-and-diamondnuts-walnuts/>

## **Fun Historical Facts about Squash!**

Squashes are one of the oldest known crops--10,000 years by some estimates of sites in Mexico. Since squashes are gourds, they most likely served as containers or utensils because of their hard shells. The seeds and flesh later became an important part of the pre-Columbian Indian diet in both South and North America. Explorers De Soto, Coronado, and Cartier all saw “melons” (probably squash) in the Americas.

Northeastern Native American tribes grew pumpkins, yellow crooknecks, patty pans, Boston marrows (perhaps the oldest squash in America still sold), and turbans. Southern tribes raised winter crooknecks, cushaws, and green and white striped sweet potato squashes. Native Americans roasted or boiled the squashes and pumpkins and preserved the flesh as conserves in syrup. They also ate the young shoots, leaves, flowers, and seeds.

Virginia and New England settlers were not very impressed by the Indians’ squash until they had to survive the harsh winter, at which point they adopted squash and pumpkins as staples. Squashes were baked, cut and moistened with animal fat, maple syrup, and honey.

Squashes come in many different shapes and colors including tan, orange, and blue. There are many kinds of squashes, all part of the genus *Cucurbita* (Family Cucurbitaceae). The terms pumpkin, winter squash, and summer squash have been applied to fruits of different species.

***Cucurbita maxima*** (round, thick stems) are winter squash (buttercup, Hubbard, turban, winter pumpkins). Usually larger fruit with hard seeds, they ripen in the fall. We have to peel them. They can be stored for several months.

***C. moschata*** (round stems) are also winter squash such as butternuts, musky winter squash, and the cushaw.

Adapted from: <https://www.loc.gov/rr/scitech/mysteries/squash.html>