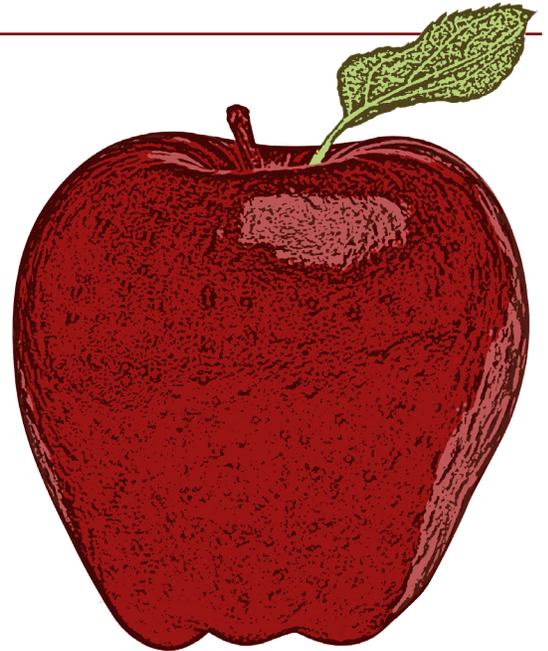


# Apples



## COOKING IN THE CLASSROOM

### Apple Cinnamon Crunch

Makes 32 tastes at ¼ cup each

#### Ingredients:

- 4 large Washington apples
- 2 tsp ground cinnamon
- 2 cups nut-free granola

#### Directions:

1. Wash, core and slice the apples. Place apple slices in a large microwave-safe bowl.
2. Add cinnamon. Cover bowl with a lid or plastic wrap. Shake well to coat each slice with cinnamon.
3. Microwave on high for 2 minutes. Remove from microwave and stir to distribute heat.
4. Top with granola and serve warm.

## HOW IT'S GROWN

Apple trees grow in the temperate regions of the world as winter weather is needed to set fruit in the spring. Along with a water source, cool nights and sunny days are ideal, which is why Washington's river valleys are the perfect place to grow apples.

In January, after the leaves have fallen and the trees are dormant, pruning begins. Limbs are trimmed to allow maximum sunlight onto the tree. Pruning allows trees to produce higher quality fruit that is larger and more brilliantly colored.

In the spring, apple trees blossom with fragrant, sweet-smelling white flowers that produce pollen and nectar. Bees help to cross-pollinate the blossoms, the first step in forming an apple. When the blossoms fall off the pollinated flowers, baby apples begin to grow in their place.

The apple crop is harvested in the fall, when the apples are fully grown and ripened.

For more information, visit:

<http://usapple.org/educators/applestore/p-3.pdf>

## DID YOU KNOW?

- Washington's oldest fruit orchards date back to approximately the mid-1800s making our state the first in the Pacific Northwest to produce apples. Today, 6 out of 10 apples eaten in the US are grown in Washington.
- The top 9 varieties of Washington State apples are Red Delicious, Golden Delicious, Gala, Fuji, Granny Smith, Braeburn, Honeycrisp, Cripps Pink and Cameo. These popular apples are sold in 60 countries worldwide!

- There are no harvest machines to pick apples as they bruise easily. 175,000 acres of apple trees are located in Washington where over 10 billion apples are handpicked by farm workers each year.
- If you put all of the Washington State apples picked in a year side-by-side, they would circle the earth 29 times.

For more information, visit:

<http://www.bestapples.com/index.aspx>



## JUST THE FACTS

- Last year, the average American ate 19 pounds of fresh apples.
- An apple a day keeps the doctor away when you eat the apple with its peel. That's where most of the vitamins and fiber are stored.
- Horticulturists have documented a remarkable 7,500 varieties of apples. 2,500 of those are produced in the US. Only a handful of varieties are found in your local market.
- Apples range in size from a little larger than a cherry to as large as a grapefruit.

For more information, visit:

<http://www.bestapples.com/index.aspx>

## LITERATURE LINKS

### GRADES K-2:

*Apples, Apples, Apples*

by Nancy Elizabeth Wallace (Winslow, 2000).

*Bring Me Some Apples and I'll Make You a Pie*

by Robbin Gourley (Clarion, 2009).

*The Seasons of Arnold's Apple Tree*

by Gail Gibbons (Harcourt Brace Jovanovich, 1984).

### GRADES 3-5:

*Apples*

by Jacqueline Farmer (Charlesbridge, 2007).

*How Do Apples Grow?*

by Betsy Maestro (Harper Collins, 1992).

*Johnny Appleseed: A Tall Tale*

by Steven Kellogg (Morrow, 1988).

## SCHOOL GARDEN:

### WINTER FOCUS: COMPOST

While winter is in full swing, compost is continuing to decompose. Explore how healthy soil is created to nourish seeds in the spring.

- Talk about compost and the process of decomposition. Describe some of the different creatures and microbes that do the work. Discuss what they need to live.
- Bring in a 1-gallon pail of good compost and give each small group 1 cup of the compost. Have them spread it on white paper and describe what they see. Use hand lenses, if you have them.
- Explore with students the role they play in creating healthy soil. Does their lunch room or home kitchen collect food scraps for compost? What foods do they recycle into the compost bin? Point out that soil is nourished by some of the same things that are healthy for kids (i.e. fruit and vegetables).

For more information, visit:

<http://www.gardeners.com/Kids-and-Composting/5329,default.pg.html>



## BOTANICAL FACTS

Family:

**Rosaceae**

Subfamily:

**Pomoideae**

Genus:

**Malus**

Species:

**Malus Domestica**

The cultivated apple *Malus x domestica* belongs to the family Rosaceae. It is a member of the subfamily

Pomoideae. The domestic apple is thought to have originated in the mountains of Central Asia. In fact, the former capital of Kazakhstan, Almaty, means "father of the apple."

Members of the rose family have flower parts in fives or multiples of five. The flowers are white or pink and the fruit is a pome type, in which the seeds are fused within the flesh (fruit). Cut an apple in half crosswise to find a star with five chambers, each having one to two seeds.

The science of apple growing is called pomology, named after the French word for apple - pomme. Over the years many people have worked together to refine methods to produce the best formed and tastiest apples. Apple trees begin to bear fruit when they are four or five years old. Some apple trees have been known to reach 200 years old, still producing apples!

For more information, visit:

<http://www.umass.edu/umext/mac/index.html>

## STUDENT SLEUTH

1. Apples are an excellent source of fiber. How many grams of fiber are in an apple? Why is fiber important?
2. Map the origin of most Washington state apples. Describe the regional conditions that make this part of Washington ideal for growing apples.
3. Why are dwarf trees planted in Washington apple orchards?
4. List the top nine varieties of apples commercially produced in Washington. Have you tried them all?
5. Many of the apples grown are not eaten fresh and whole. What percentage of apples is eaten fresh? What percentage of apples is processed? List the foods made from fresh apples.
6. Describe what to look for when choosing an apple that is sure to taste delicious.

For more information, visit:

<http://www.bestapples.com/index.aspx>

<http://www.fruitsandveggiesmatter.gov/month/apple.html>

## STUDENT ADVOCATES

### WASHINGTON APPLES...COMING TO A STORE NEAR YOU

Is there a store within walking distance of students' home and/or school that sells food? What kind of food is sold there? Are there healthy choices like fresh fruit and vegetables? If so, have students investigate where their apples are grown and how many varieties are available for purchase. Then, have students write letters to the store manager in praise of making healthy foods available or to advocate that fresh local produce is carried at their store to support the community.

## ADVENTUROUS ACTIVITIES

### HISTORY

Research the early beginnings of the Washington apple industry. Who were the first people to grow apples? Why did growers begin to process apples into juice and applesauce? Today, Washington apples are sold throughout the world, what type of packaging was created to ship apples?

### PROBLEM SOLVING

Use apples in math equations to demonstrate addition and subtraction of fractions.

### SCIENCE

Use 3 to 5 varieties of Washington apples for a taste test. Have students observe, touch, smell and taste each apple variety and document their findings. Take a vote to find out which apple variety is preferred by students. Chart results with a bar graph. Discuss the attributes of the most and least popular apples.

### WRITING

Ask students write an original fairy tale or myth in which the apple plays a primary role. Alternatively, they might take a well-known tall tale and change the story line to include an apple theme; a magic apple perhaps?

For more information, visit:

[http://www.usapple.org/educators/](http://www.usapple.org/educators/applestore/4-6guide.pdf)

[applestore/4-6guide.pdf](http://www.usapple.org/educators/applestore/4-6guide.pdf)



HEAL IS A collaboration between Seattle Public Schools nutrition services, health education, physical education and risk management departments.