

# 4<sup>th</sup> Grade Farm Festival- Virginia Apples

*Learning Objectives:* VS.10b The student will demonstrate knowledge of government, **geography, and economics** by describing the major **products** and **industries** of Virginia's five geographic regions.

## Overview

Students will be aware of the many different varieties of Virginia apples, products that are made with apples, and the apple industry's contribution to Virginia's economy. Students will sample apples and apple cider and then create a poster to advertise Virginia's apple industry.

## Materials

### Teacher

- Copies of handouts and tasting sheets for students
- Pencils

### Cafeteria Manager

Give each student a tray with:

- 1 piece per student of each of the following apples (Granny Smith, Red Delicious, Golden Delicious, Fuji)
- 4 oz of Apple Cider per student (order from Lovings- 32, ½ cup servings in 1 gallon)
- \* Set tray up like diagram on Handout 3, so students can reference which apples are in which tray space.
- 1 can of apple sauce (for showing only)
- 1 cup of apple juice (for showing only)

### Teacher Introduction:

*Today we are going to be talking about a very important industry in Virginia's economy. Remember that an economy is related to the production of goods and services and the use of resources. The cafeteria is a perfect place to learn more about one of Virginia's most important agricultural products.*

### Manager:

*Welcome to our 4<sup>th</sup> Grade Farm Festival, featuring locally grown Virginia Apples! A very important industry in Virginia and one that we use often in the cafeteria is: Apples. Virginia is the sixth largest apple producing state in the country, with production from Southwest Virginia through the Central region and up to the Northern Shenandoah Valley. Virginia apple farmers produce a wide variety of apples for fresh consumption and processing.*

### Teacher:

Distribute handout 1: product map of Virginia orchards. Ask students which region has the most orchards in VA? (Blue Ridge and Valley and Ridge regions; especially in the Shenandoah Valley) Ask students why the majority of the orchards are in those regions? (Favorable climate, fertile soil)

*There are more than 3,000 apple varieties in the world, but only about 25 varieties are commonly grown in Virginia. 8-10 million bushels of apples are produced annually in Virginia.*

*The apple industry includes growers who sell apples in the US and throughout the world as well as many pick your own operations, and farmers markets. Virginia is known for the outstanding apple harvest festivals in the fall. These festivals and events around apples also contribute to Virginia's economy through **tourism**.*

(Ask students if they have ever been apple picking or attended a harvest festival and share their experiences.)

**Manager:**

*Approximately \$30 million will be added to the state's economy this year through the sale of fresh market apples and products such as applesauce, processed apple slices, apple butter, apple juice and cider. We use fresh apples, apple sauce and apple juice in the cafeteria. (Show students the selection of VA apples. Ask students if they have ever seen or eaten any of these varieties. Share with students the type of apple most often served in the cafeteria- red delicious and golden delicious. Show students the samples of apple products that are processed- sauce, juice and cider.)*

**Teacher:**

Distribute handout 2: Value of Virginia Apple Products. Ask students to observe how much money apple products have made in Virginia from 2000 to 2010. Ask what year had the highest total? (2004) Which year had the lowest total? (2006) What was the difference? Make prediction: Why do you think the values changed? (Students should connect the production of apples with climate and weather conditions as possible reasons, or perhaps bug infestation, or fungus. As a follow-up, students may want to research their hypotheses to see if any of those conditions existed then to cause a drop in apple growing.)

**Manager:**

*Now you are going to taste some of Virginia's apples to see the different tastes and textures apples can have.*

**Teacher:**

Distribute handout 3. Explain to students that they will taste each item and rate it on a scale of 1 to 5, with 5 being the best. Allow enough time to rate each sample. Briefly discuss favorites and opinions about the different apple types.

*As you can see from today's experience, not only are Virginia's apples a good tasting, healthy snack, they are good for the economy.*

**Manager:**

*Thank you for coming! We are serving apples on \_\_\_\_\_ so be sure to come and try them!*

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Back in your classroom, tally the totals to see which Virginia apple product is the favorite of the class. Record totals on chart paper for all to see. Encourage students to describe why they rated the samples as they did... too tart, not crisp, etc.

\*\*\*Follow up (optional, in the classroom): Students will create a poster to promote the apple industry in Virginia. (Perhaps the posters can be posted in the cafeteria or hallway outside the cafeteria.)

**Characteristics of the tasted apples include the following:**

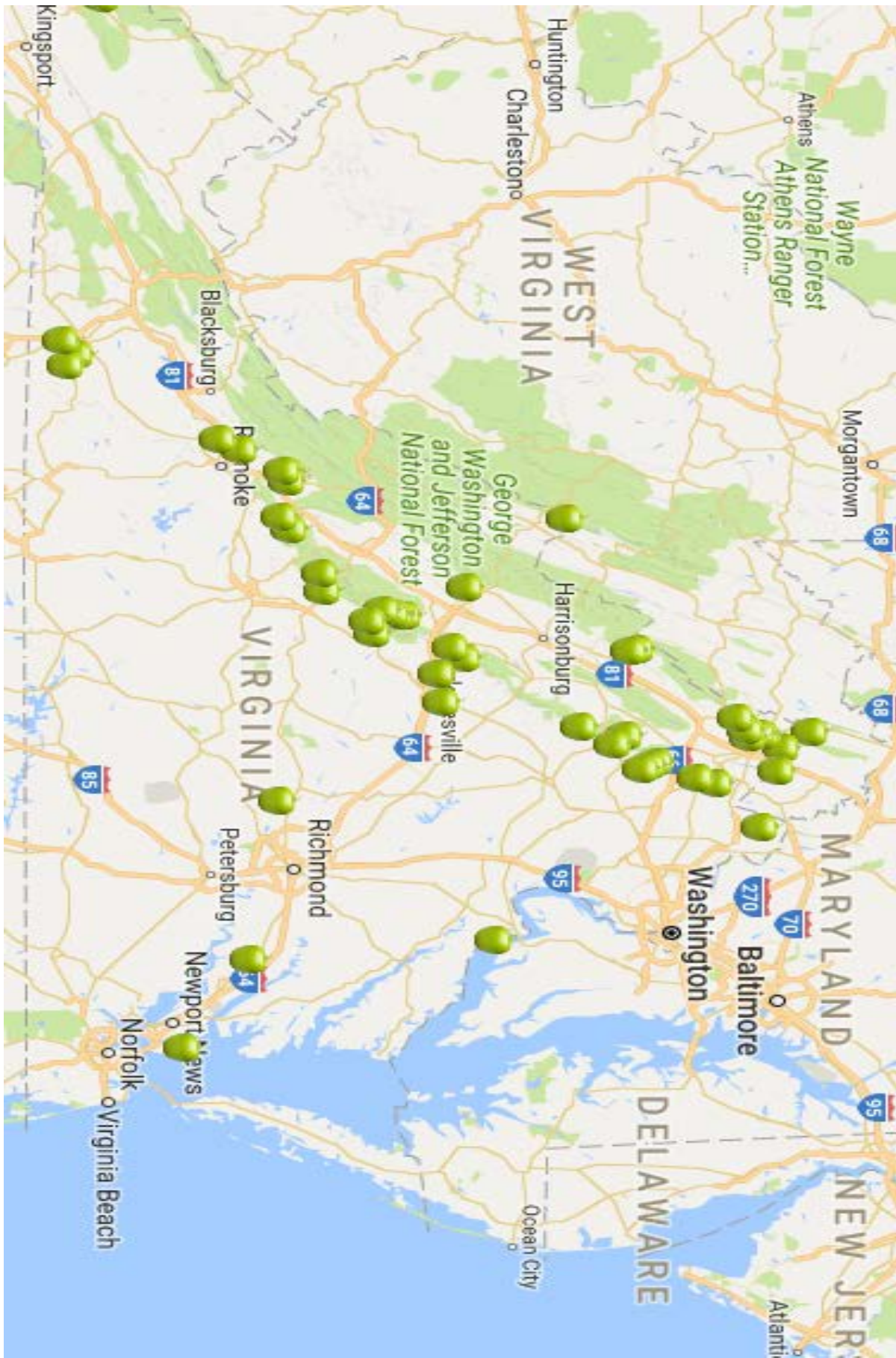
FUJI- tender, sweet, slightly tart, crisp

GRANNY SMITH- lemony, sour, crisp, moderately juicy

RED DELICIOUS- firm, slightly sweet, bland, watery, mealy, soft

GOLDEN DELICIOUS- sugary, juicy but not crunchy

Handout 1



Handout 2

Value of Virginia Apple Production	
Year	Dollars
2000	32,228,000
2001	32,541,000
2002	25,756,000
2003	25,066,000
2004	44,226,000
2005	23,727,000
2006	20,964,000
2007	26,122,000
2008	37,574,000
2009	33,078,000
2010	30,760,000

Handout 3

Rate each apple or apple product. Score 1 through 5.

Apple Variety	Describe (examples: crisp, juicy, sweet, tart, light, firm, juicy, tangy, crunchy, grainy)	1(dislike).....5(like)
<i>Red Delicious</i>		
<i>Golden Delicious</i>		
<i>Granny Smith</i>		
<i>Fuji</i>		
Apple Product: <i>Apple Cider</i>		

