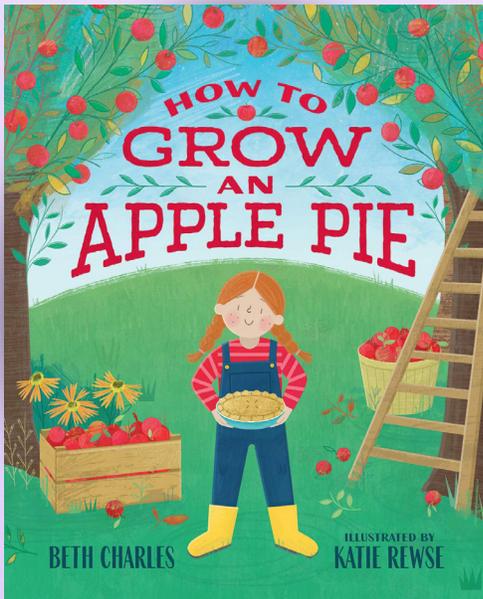


## SNAPSHOT

**Level:** K-2

**Time:** 35 min.

**Activity:** Students will engage in a story and make their own mini apple pie treat. *May need to prep activity snack first or make a head of time for this lesson depending on time available. This snack activity takes an additional 45 minutes.*



### Purpose

Students will follow the journey of apple production and identify ingredients used to make an apple pie.

### Materials

- *How to Grow an Apple Pie* book by Beth Charles
- Frozen pie crusts, defrosted
- Apple pie filling
- Eggs
- Coarse sugar
- 2.5" round cookie cutter
- 3" round cookie cutter
- Baking pans
- Oven

# LUNCHBOX Mysteries

Teacher's Guide

## LESSON 7

# How to Grow an Apple Pie

## PROCEDURES

### 1. Organize and Prepare Materials

### 2. Background Information

Sources:

- [nda.nebraska.gov/publications/ne\\_ag\\_facts\\_brochure.pdf](http://nda.nebraska.gov/publications/ne_ag_facts_brochure.pdf)
- [www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/agricultural-production-and-prices/](http://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/agricultural-production-and-prices/)
- [www.agmrc.org/commodities-products/fruits/apples](http://www.agmrc.org/commodities-products/fruits/apples)
- [farmflavor.com/nebraska/nebraska-crops-livestock/nebraska-sugar-beets-confection-perfection/](http://farmflavor.com/nebraska/nebraska-crops-livestock/nebraska-sugar-beets-confection-perfection/)

Nebraska's agriculture industry drives the state's economy. In fact, 91 percent of the state's land is used for agriculture production in row crops and livestock. Nebraska has experienced steady growth in fruit and vegetable production throughout the years. This is a highly intensive enterprise requires specialized equipment and a large labor supply.

California, Iowa, Illinois, Minnesota, and Nebraska are the top five states with the highest value of crop sales while Washington leads the nation in apple production. Washington produced 5.4 billion pounds of apples in 2009.

There are 32 states that produce apples commercially. This totals 10.5 billion pounds of apples each year.

Apples are the most consumed fruit in the United States. The average person consumes about 26.3 pounds of fruit each year. The United States is the second largest apple producing country behind China. Each year the United States grows over 200 different varieties of apples.

Across Nebraska you will find many apple orchards and fruit stands that provide a fresh selection of apple varieties. These orchards often market their fruits locally to grocery stores and retailers right here in Nebraska as well as offering a u-pick opportunity to their communities.

Apples are used to make an assortment of products including apple pie, apple sauce, apple juice, cider, apple donuts and much more. Apples provide a healthy and nutritional option for a fresh fruit.

An important ingredient for apple pie is sugar. Nebraska produces sugar beets which make granulated sugar, powdered sugar, and brown sugar that consumers use to bake goodies. Nebraska ranks 7th in the nation for sugar beet production and averages about 1.4 million tons of production each year. Sugar beets are grown in western Nebraska due to the soil and climate of that area of the state.

Wheat is another common ingredient used for making apple pies. Wheat is grown across Nebraska, and it can be red or white winter wheat. Nebraska ranks 11th in the United States producing over 1 million acres of wheat. Winter wheat makes flour that is used to make bread, cakes, cookies, crackers, cereals and more. This winter wheat is used to make our apple pie crust.

In the story *"How to Grow an Apple Tree"* by Beth Charles, students will explore how apples grow and what it takes to make a delicious apple pie. At the end of the story students will get to make their own mini apple pie.

### **3. Interest Approach**

- a. Ask students to think about their favorite fruit and write the answers to the following questions on the board.
  - Where does this fruit grow? Does it grow on a tree or on a bush?
  - Can we grow this fruit in Nebraska or does it need to grow in a warmer climate?
- b. Now ask the students to think of their favorite pie. Make a list on the board.
  - What ingredients do we need to make a pie? Make a list on the board.
- c. Share with students that we are going to read a story called *"How to grow an apple pie."*
  - Explain that this story explores apple production and the ingredients needed to make an apple pie. This story will make the connection back to the farm and share the journey of an apple pie from start to finish.

### **4. Read the Story**

- a. Read the story *"How to Grow an Apple Pie"*.
- b. Ask questions throughout the story to engage students in conversation about apples and the different ingredients it takes to make an apple pie.
- c. Ask follow-up questions at the end of the story.
  - Where apples come from?  
*Apples grow on trees; in fact, we have apple trees right here in Nebraska. Ask the students if anyone has ever been to an apple orchard.*

- How long does it take for an apple tree to be fully grown and produce apples?  
*It takes about six years for an apple tree to be fully grown to start producing apples.*
  - What is the first thing Sophie saw on her apple tree in the spring?  
*She saw apple buds that turned into apple blossoms.*
  - What insect did they bring in to help pollinate their apple blossoms?  
*Bees. Sophie waited as the bees helped pollinate the apple blossoms. Bees carry pollen which help pollinate the flowers so the apples can begin to grow.*
  - What color did the tiny green apples grow and turn into?  
*The tiny green apples grew and started to turn red.*
  - In the fall Sophie and her dad picked the apples just like the farmers in Nebraska do. Sophie was ready to make her apple pie. What did Sophie's parents help her make?  
*Sophie's parents helped her mix up the pie crust, roll it out, slice the apples and put spices in the crust with apples, along with sugar. She set the timer, put the pie in the oven and waited patiently for her pie to bake.*
  - Where does the crust used to make the pie come from?  
*The crust is made from flour which comes from wheat. Farmers in Nebraska grow wheat and it is used to make flour other products such as cakes, cookies, cereals, pastas, and even the pie crust.*
  - Where does sugar come from?  
*Nebraska farmers grow a plant called a sugar beet. These sugar beets grow in western Nebraska and provide us with sugar, powder sugar, and brown sugar. All which we use for our tasty pies and other baked goodies. Nebraska ranks 7th in the nation for sugar beet production.*
  - Do farmers in Nebraska grow apples?  
*Yes! Farmers in Nebraska grow apples in orchard across the state. Most of these apple farms provide u-pick opportunities where you and your families can attend and pick your own apples. Some farmers sell apples to local farmers markets and grocery stores when apples are in season in the fall.*
- d. Now that we know that farmers in Nebraska grow ingredients that help make apples pies, we are going to make our very own mini apple pies.

## 5. Snack Activity-Mini Apple Pies (45 minutes)

*May need to prep or make a head of time for this lesson.*

### Ingredients- Servings 10

- Two 9" Frozen Pie Crusts defrosted
- 1 Can Apple Pie Filling
- 1 Egg
- Coarse Sugar
- 2.5" round cookie cutter
- 3" round cookie cutter
- Baking pans
- Oven

### Instructions

1. Preheat the oven to 350F.
2. Remove the defrosted pie crusts from the tin and carefully place on the counter.
3. Use a rolling pin to gently flatten them out (but don't roll them thinner).
4. Using a 2.5" round cookie cutter (or drinking cup), cut out circles from one of the pie crusts. (You should be able to get 9 or 10 circles).

5. Using a 3" round cookie cutter (or a slightly larger drinking cup), cut out circles from the other pie crust (again, you'll be able to get 9 or 10 circles). Slice each circle into 1/4" strips.
6. Place the smaller, 2.5" circles on a parchment lined baking sheet.
7. Scoop about 1 cup of apple pie filling into a bowl. Use a knife to cut through the filling in the bowl to make the apple chunks smaller.
8. Add a generous spoonful of apple pie filling to the middle of each heart. Make sure you leave space around the edges so you can seal it.
9. Beat the egg and add a small splash of water to it.
10. Using your finger (or a small brush), spread the egg around the edge of the circles so that it completely covers all of the exposed crust around the apple pie filling.
11. Place the 1/4" strips of pie dough onto each circle, going vertical, horizontal, vertical, horizontal, to make the lattice pattern.
12. Press down around the edges with a fork to seal it all in. Clean up the edges by pressing the 2.5" cookie cutter over each cookie.
13. Brush the egg mixture on top of each of the hearts then sprinkle with coarse sugar.
14. Bake at 350F for 25 to 30 minutes until the edges turn golden brown.
15. Remove from the oven and enjoy!

## 6. Ask Follow Up Questions and Make Connection to Agriculture

- a. Where does our food come from?

*Our food must come from the farm. Either as a plant or a food product that we get from an animal.*

- b. Can we grow some of our apple pie ingredients right here in Nebraska?

*Yes! We can grow the main ingredients for apple pies right here in Nebraska like our apples, sugar, and wheat!*

## EXTENSION ACTIVITIES

### A is for Apples

[www.agclassroom.org/matrix/lesson/374/](http://www.agclassroom.org/matrix/lesson/374/)

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

### Freshest Fruits

[www.agclassroom.org/matrix/lesson/322/](http://www.agclassroom.org/matrix/lesson/322/)

Students determine where fruits grow and their nutritional value by completing an activity to observe the size, shape, texture, and seeds of various fruits.

### Four Seasons on a Farm

[www.agclassroom.org/matrix/lesson/327/](http://www.agclassroom.org/matrix/lesson/327/)

Students identify the characteristics of the four seasons of the year, investigate what causes seasons, and observe the affects changing seasons have on farms.