



HARVEST LESSONS

THIS MONTH'S THEME:

TOMATOES

Lesson Plan



HARVEST LESSONS ARE A FUN WAY FOR K-4 CLASSROOMS TO EXPLORE, TASTE AND LEARN ABOUT EATING MORE FRUITS AND VEGETABLES EVERY DAY.

ACTIVITIES

ACTIVITY	GRADE LEVEL	CURRICULUM CONNECTION	TIME
#1: Observe & Draw Tomatoes	all	Health: nutrition Science: inquiry, cause and effect	15 minutes
#2: Book & Discussion	all	Literacy: reading comprehension Health: nutrition	20 minutes
#3: Tomato Timeline & Map	3-4	Science: habitats, climate Social Studies: mapping, economics Math: measuring, graphical representation of distance	15 minutes
#4a: Heirloom Taste Test	all	Health: nutrition Science: classification, structure of organisms Literacy: adjectives to describe taste and texture Math: graphing and tallying	10 minutes
#4b: Making & Tasting Fresh Salsa	all	Math: measuring, graphing and tallying	20 minutes

FOCUSING QUESTIONS

Grades K-2: Why are tomatoes healthy? How do tomatoes vary?

Grades 3-4: Where do tomatoes come from? How do tomatoes vary?



OVERVIEW

Grades K-2: Students will learn about why tomatoes are healthy. They will read aloud and discuss the story *I Will Never Not Ever Eat a Tomato*. They will taste and compare different kinds of tomatoes, or make and sample fresh salsa.

Grades 3-4: Students will learn where tomatoes originated and do a mapping activity charting the history of movement of the tomato around the globe. They will discuss where and how they are grown and they may taste test and compare conventional/large scale tomatoes with local/small-scale tomatoes, or make and sample fresh salsa.

INTRO TO TOMATOES (15 MINUTES) ALL GRADES

Introduce the vegetable (err, fruit) of the day, and play the [video clip](http://bit.ly/1DcaX4h) from Cedar Circle Farm, found on the Upper Valley Farm to School YouTube channel at <http://bit.ly/1DcaX4h>.

ACTIVITY #1 (15 MINUTES) ALL GRADES

OBSERVE & DRAW TOMATOES

MATERIALS

Assorted tomatoes, crayons, pencils, paper, world map and human body map. One store-bought red tomato and one heirloom garden tomato.

PREPARATION

Gather materials.

PROCEDURE

GRADES K-1: What color is this? How is it good for you? (Put the food on the body.) What part of this plant are we eating? Review that plant part's job.

GRADE 2: What color is this? How is it good for you? (Put the food on the body.) What part of this plant are we eating? Review that plant part's job. Where does this food grow?

GRADES 3-4: Origins: Where does this food grow? Where did it originate? Put the food on the map. How is this food good for you? (Put the food on the body).
Background info on nutrition and history of food.

ALL GRADES: Observe and compare the differences between the store-bought tomato grown far away and a garden-grown heirloom tomato. Compare shape, color, texture, distance traveled, and finally, taste.



ACTIVITY #2 (20 MINUTES)

ALL GRADES

BOOK & DISCUSSION

MATERIALS

Book titled *I Will Never Not Ever Eat a Tomato* by Lauren Child

PREPARATION

Read over book and materials on lesson plan.

PROCEDURE

Students will read and discuss *I Will Never Not Ever Eat a Tomato*. Here are some ideas for discussion questions:

- Has anyone ever decided they didn't like a food, and then tried it and changed their mind?
- What did Charlie end up serving in the end of the book? Is it a balanced meal with all the food groups (Use MyPlate as a reference)

Use this book as an introduction to the idea of a taste test. When we are given an opportunity to try a new food, we should give it a try. Sometimes it takes more than one try to realize we like a food, and not all tomatoes taste the same.

ACTIVITY #3 (15 MINUTES)

GRADES 3-4

TOMATO TIMELINE & MAP

MATERIALS See timeline activity on page 7 and map on page 8.

PREPARATION Print out one timeline and one map per student.

PROCEDURE

Where do tomatoes come from? Distribute mapping activity. Students will read the tomato timeline, and mark the tomato's journey around the world. **Fun fact:** When tomatoes were first grown in Europe, people thought they were poisonous.

**ACTIVITY #4A** (10 MINUTES)

ALL GRADES

HEIRLOOM TASTE TEST

As a taste test you may choose to sample a selection of tomato varieties and graph preferences. You may do a blind taste comparing local and conventional after discussing some differences. You may also choose to make and taste-test fresh salsa.

ACTIVITY #4B (20 MINUTES)

ALL GRADES

MAKING & TASTING SALSA

This taste test option takes slightly more time and coordination, but it's a fun activity!

FRESH TOMATO SALSA**PREPARATION**

Gather ingredients and bowl. For younger kids, you may want to chop some ingredients ahead of time. Tomatoes are a great vegetable for small kids, because they can be chopped easily with a plastic knife.

INGREDIENTS

3 cups of chopped tomatoes	½ cup of chopped green bell pepper
1 cup of onion, diced	¼ cup of minced fresh cilantro
2 tablespoons fresh lime juice	½ teaspoon ground cumin
½ teaspoon kosher salt	½ teaspoon of ground black pepper

DIRECTIONS

Stir all ingredients in a bowl. Serve.

From: AllRecipes.com 2013

PROCEDURE

- Discuss: How do we use this plant? Processing, storage, different recipes – how have you eaten this before?
- Show pictures of different versions of this plant
- Try the food
- Discuss vocabulary to describe flavors
- Make a graph showing how many people liked it and didn't like it



EXTENSIONS

OPTION #1: BAR GRAPH

Make a bar graph representing the top producers. Students can locate countries on a map and graph numbers (available on Wikipedia).

OPTION #2: ACTING

Have students pretend that they're a growing tomato plant and go through the stages. You may dress up one student. (see introductory lesson)

OPTION #3: MATH (COUNTING SEEDS)

MATERIALS

- Varieties of tomatoes—aim for small (cherry, pear tomato), medium (green zebra, mountain princess) and large (beefsteak)
- Drop cloths
- Knives

PROCEDURE

Have students estimate the number of seeds inside each size of tomato. Write estimates on the board. Next, have students cut the tomatoes and count the seeds by hand. Write the true seed counts on the board—compare and contrast with the estimates and between the various sizes.

CLOSINGS

ACKNOWLEDGEMENTS

Vermont FEED | www.vtfeed.org

Shelburne Farms | www.shelburnefarms.org

Green Mountain Farm to School | www.greenmountainfarmtoschool.org

Vital Communities | www.vitalcommunities.org/agriculture/uvfts/

BACKGROUND INFORMATION

Refer to Harvest of the Month Materials:

www.greenmountainfarmtoschool.org/harvest-of-the-month-archive/

Harvest of the Month tomato lesson:

www.whatcomfarmtoschool.org/wp-content/uploads/2011/11/Tomatoes_Edu.pdf

Excerpt from Seven Wonders for a Cool Planet – The Real Tomato:

www.sightline.org/research/excerpt-tomato/

Smaller But Better? Organic Tomatoes May Pack More Nutritional Punch:

www.npr.org/blogs/thesalt/2013/02/19/172416458/smaller-but-better-organic-tomatoes-may-pack-more-nutritional-punch

Tomatoes were first found growing as a wild plant in South America in the Andes Mountains in what are today the countries of Peru, Ecuador, Bolivia and Chile. ↓

#1: Using colored pencils, mark the Andes mountains on your map.

Early 1500's:
Spanish Conquistadors were first introduced to the tomato and introduced the fruit to The Philippines (Southeast Asia) The Carribean, and Europe. ↓

#3: Draw a line tracing the tomatoes journey by ship from Mexico to Southeast Asia, The Caribbean, and Europe.

700S

1500S

1700S

NOW

1692: The first known tomato recipe was published in a cookbook in Naples, Italy. At this time, eating tomatoes had caught on in France, Spain and Italy.

Today tomatoes are a popular fruit. 1.5 billion (1,500,000,000) tons are grown and sold around the world. The top producing countries are
1. China, 2. India, 3. The US 4. Turkey, 5. Egypt, 6. Iran, 7. Italy, 8. Brazil, 9. Spain, and 10. Uzbekistan.



THIS MONTH'S FOOD: TOMATOES

700 AD: Aztec Farmers in what is today Mexico cultivated the wild plant, selecting for tasty and juicy fruits. ↓

#2: Using colored pencils, mark Mexico on the map, and make a line following the tomato's journey to the region of Central America.

When tomatoes were first introduced in Europe, they were believed to be poisonous because they are related to poison plants in the nightshade family, and because some people got sick from eating off of lead plates. Even though some began eating this tasty fruit, in England people remained scared, and English Colonists in America still held onto this belief.

1792: Thomas Jefferson wrote about people growing tomatoes in the Colonies, so even though many were still scared of the fruit, we know that some were eating it in the United States by then.

#5: Can you find and mark all these countries on a map?

#4: Draw a line showing the journey of tomatoes from Europe back to North America.



THIS MONTH'S FOOD:

