

Salsa Making – Parts of Plant – Scavenger Hunt - Temperature

Making Salsa – First Grade Lesson Overview

Science Standards addressed:

EALR 1: Systems: *Part-Whole Relationships* K-1 Living and nonliving things are made of parts. People give names to the parts that are different from the name of the whole object, plant, or animal.

EALR 2: Inquiry: *Making Observations*

Students learn that scientific investigations involve trying to answer questions by making observations or trying things out, rather than just asking an adult.

EALR 3: Application: *Tools and Materials* Students learn to use simple tools (e.g., pencils, scissors) and materials (e.g., paper, tape, glue, and cardboard) to solve problems in creative ways.

CCSS.Math.Content.3.MD.A.2 Measure and estimate liquid volumes and masses of objects

Objective: To make salsa and learn measurement and fractions – to learn the 6 parts of a plant – to consider how the sun affects temperature

Date: Mid-September

Time required: 1 – 1 ½ hours to visit with the class as a whole, investigate the different parts of a tomato plant, harvest, make and share salsa while discussing the lesson and any questions.

Materials: all recipe ingredients, cutting boards, bowls, plastic serrated knives, scissors, garlic press, lime juicer, paper plates, napkins, measuring cups and spoons, food processor, chips, parent volunteers, 6 parts of a plant illustration, thermometers (for weather portion)

4 cups tomatoes

1/4 cup onion

1/2 cup bell peppers

1/2 jalapeno

2 T garlic minced

2 T lime juice

1/2 cup fresh cilantro

1 t salt

Mix together in a blender and serve with corn chips. Enjoy!

Vocabulary Words:

Garden, harvest, stem, leaves, fruit, flower, roots, seed

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Pre-Class Discussion:

- 1) In the classroom talk to the full class around the garden. *What is a garden? What are the parts of a garden? What do you remember about our school garden? What is needed for a garden to grow? (sun, water, soil, air) What seeds did you plant in kindergarten? What are the parts of a plant? Do you remember why we planted those seeds? Who has tried salsa before?*
- 2) Review garden rules such as:
 - a) Wait outside the fence and wait for an adult to give the “OK” before going inside.
 - b) Feet stay on the paths.
 - c) Ask before eating/picking.
 - d) Be kind to plants, animals and each other.
 - e) Keep tools below your waist (bellybutton).
- 3) Review measurements and fractions (for salsa making lesson 2)

Class Lessons and Actions:

Split into groups (2 groups for 60 min. lesson or 1 for 30 min. lesson).

LESSON 1 (used in all 3 time options)

6 Parts of a plant (10 min) (EARL 1 – Systems – Part–Whole Relationships, EARL 4-Structure and function of living organisms) lead discussion about:

- Roots Found underground; absorb nutrients and water for growth; anchor the plant in the soil, and can store food.
- Stems connect leaves to roots; support buds and leaves; carry water, minerals and food
- Leaves absorb sunlight, which gives energy for plants to grow through photosynthesis; release moisture and oxygen
- Flowers where fruits and seeds come from; attract pollinators through fragrance and color to help ensure reproduction
- Fruits protect the seeds until they are ready for dispersal
- Seeds produce more plants to ensure survival of the species

Scavenger hunt (10 min.): (EARL 2 – Inquiry - Making Observations) utilizing the 5 senses

- Divide children into groups, give each group the plant part cards (borrowed from School Garden Project), and assign them a particular plant in the garden. Ask them to use their five senses to help them find each plant part.
- Ask each small group to explain what the parts of the plant do.
- Ask each group to- 1) find a fruit (tomato or pepper), 2) determine if it is ripe using observation skills, 3) pick the fruit after having it checked by an adult.

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LESSON 2

Salsa Preparation group (20 min) (CCSS.Math.Content.3.MD.A.2 – Measure and estimate liquid volumes and masses of objects)

- Go over measurement/fractions: The classroom teacher or garden coordinator demonstrates measurement using measuring cups and spoons. Using a liquid (or dry ingredients such as dried legumes), the teacher asks and demonstrates how many $\frac{1}{2}$ cups fill a cup and will do the same with $\frac{1}{3}$ cup and $\frac{1}{4}$ cup. Next, the teacher shows that a T represents a tablespoon and a t represents a teaspoon in a recipe. Then the teacher asks and demonstrates how many teaspoons will fill a tablespoon.
- Wash hands. Split students into six groups. Have students prepare an ingredient for the salsa. Most work stations should have a volunteer to help: **Work stations:** 1. Cilantro leaf pullers, 2. Tomato choppers, 3. Pepper choppers, 4. Onion choppers, 5. Lime squeezers, 6. Garlic peel removers.
- Volunteers at work stations can take the opportunity to discuss what part of the plant they are working with, how good it is to eat food from different parts of a plant and to eat different colors.

Return together as a group, wash hands. (25 minutes)

- Try to include students in the steps of measuring and adding ingredients. Combine and make a batch of salsa in a food processor. 1 batch is needed for each student in one class to have a taste. Pass out salsa and chips on paper plates. (if no processor is available, mince onions and jalapeno)

Salsa Recipe:

4 cups chopped tomato

$\frac{1}{4}$ cup onion

$\frac{1}{2}$ cup bell pepper

$\frac{1}{2}$ jalapeno pepper (no seeds – optional)

2 T crushed garlic

2T lemon/lime juice

$\frac{1}{2}$ cup fresh cilantro

1 t salt

During this time ask students about the parts of a plant. Ask students what questions they thought of while they were investigating in the garden – anything they are wondering about? What observations helped them determine the parts of a plant? Did all plants in the garden have all 6 parts of the plant? What are you most looking forward to in the garden this year? What made the difference in the two temperature locations that they found? Write down any questions nagging questions that they may want to investigate during a later garden lesson.

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LESSON 3 As an extension if there is extra time or as a separate lesson with first grade.

Weather (20 min.) (EARL 4 – Observing the Sun and Moon; EARL 3 – Applications, Tools and Materials)

- Questions: Can we find two places with different temperatures using the thermometers? What two places outside can we check for two different temperatures?
- Place two thermometers in places that should produce two different results
- Ask for weather observations; explain what kind of weather/temperature tomatoes and peppers like.
- Have them feel the soil and describe the moisture level
- Check the thermometers and discuss why they are or are not indicating different temperatures.

In case of heavy rain: an alternative activity

The garden coordinator will pick different parts of a plant in the garden and bring them inside. Divide the class into groups of 6 students. Prepare bags with each part of a plant, enough bags- 1 for each group. Everyone in the group closes their eyes, and they are given a part of the plant to feel. The student has to guess what part of the plant they felt and then talk about how that part helps the whole plant.

See following pages for follow up activities in the classroom.

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Follow-up activities in the classroom: *templates are included separately as a pdf. file.

Recipe writing: Have students write down the recipe on an index card to take home. Use My Recipe, * Recipe for Making Salsa,* or Recipe Template* for writing the recipe and directions.

Name: _____ Date: _____

my recipe card - use fancy writing and colors

Ingredients:

use bullet points before each ingredient

a picture of my recipe when it is finished

Directions:

draw 2 pictures showing how to make it

write a number before each step

Recipe for Making Salsa

Ingredients:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

Directions:

Recipe for _____

Ingredients:

1. _____

2. _____

3. _____

4. _____

5. _____

Directions:

Making words – Mystery word: harvest*: As a class or for students, cut out the letters to generate a list of words. The mystery word “harvest” is glued down using all of the letters.

s	t	v	h	e	a	r
---	---	---	---	---	---	---



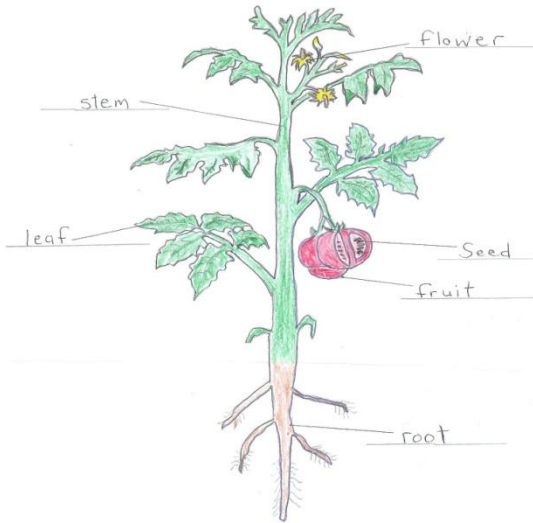
Making Words

Name _____



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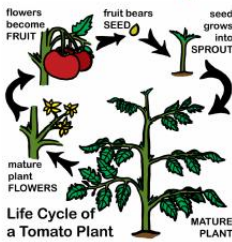
Parts of a Plant: Use the parts of a plant diagram* to make a pictorial input chart (GLAD strategy).



Life Cycle of a Tomato Plant: Use the Tomato Plant Life Cycle* to diagram the life cycle of a tomato.

Plants

Center Activity



Science Tomato Plant Life Cycle

You will need:

- Tomato Plant Life Cycle printout
- Tomato Plant Life Cycle Diagram printout
- scissors
- glue

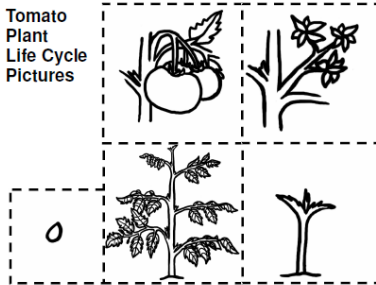
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Read the **Tomato Plant Life Cycle**. Cut out the pictures below. Match the pictures to the words on the next page. Glue the pictures in place.

Tomato Plant Life Cycle

An tomato plant begins life as a seed. The seed becomes a sprout as it grows roots that reach into the soil and a stem that grows toward the sun. As it grows taller, it becomes a mature plant with a strong stem and many leaves. When the season is right, the mature plant grows flowers. The flowers mature into fruit that we call a tomato. Inside each fruit are many new seeds.

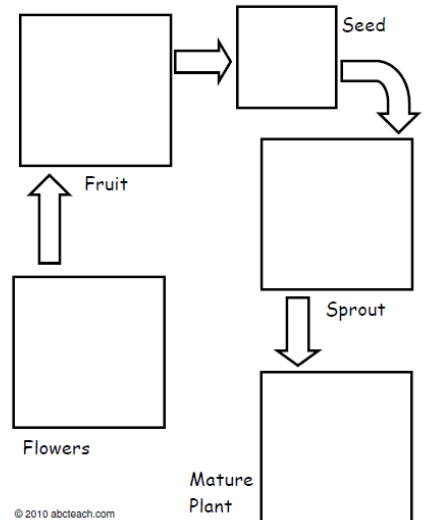
Tomato Plant Life Cycle Pictures



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Name _____

Tomato Plant Life Cycle Diagram



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Standards addressed:

CCSS.Math.Content.1.MD.C.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

CCSS.Math.Content.3.MD.A.2 Measure and estimate liquid volumes and masses of objects

1. **Data Collecting:** Before making salsa, have students count and record as a class how many tomatoes, onions, peppers, lemons/limes, etc. are being used for the recipe. Use this information to make a graph as a class or individually.
 - a. Create a graph online: <http://nces.ed.gov/nceskids/graphing/classic/>
 - b. Use a blank bar graph template*

Name _____ Date _____

Bar Graph Blank

Title _____

x-axis

Bar Graph

2. **Measurement:** Use the measuring equivalents chart* for students to explore measurement independently or in a small group using water, sand, or legumes.

MEASURING EQUIVALENTS



MEASURING EQUIVALENTS	
1 Tablespoon	= 3 Teaspoons
1/8 Cup	= 2 Tablespoons
1/4 Cup	= 4 Tablespoons
1/3 Cup	= 5 Tablespoons + 1 Teaspoon
1/2 Cup	= 8 Tablespoons
2/3 Cup	= 10 Tablespoons + 2 Teaspoons
3/4 Cup	= 12 Tablespoons
1 Cup	= 48 Teaspoons
1 Cup	= 16 Tablespoons
8 Fluid Ounces	= 1 Cup
1 Pint	= 2 Cups
1 Quart	= 2 Pints
4 Cups	= 1 Quart
1 Gallon	= 4 Quarts
16 Ounces	= 1 Pound

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Standards addressed:

CCSS.ELA-Literacy.W.1.1 Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.

CCSS.ELA-Literacy.W.1.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.

CCSS.ELA-Literacy.W.1.3 Write narratives in which they recount two or more appropriately sequenced events include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.

3. Writing: Use the writing templates* for your students to share their experience of making and tasting salsa.

opinion writing template

Opinion Statement:

Reason 1:

Reason 2:

Reason 3:

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narrative writing template

First:

Second:

Last:

Closure:

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informational writing

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informational writing

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What part of the plant do you see in these pictures? What can you make to eat with these for ingredients?

