



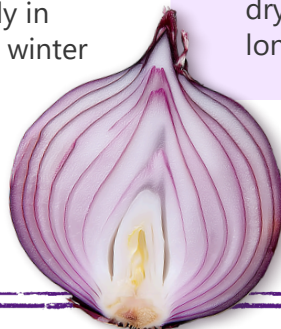
# ALLIUMS

## What is It?

- Alliums are a family of plants that include onions, garlic, leeks, shallots, and chives. This resource highlights onions, garlic, and leeks.
- Onions (*Allium cepa*) come in many types, including yellow, white, red, sweet, and green onions. Yellow onions are stronger, red onions are milder, and white onions are the crispest.
- Washington ranks second nationally for onion acreage, with roughly 19,000 acres.
- Garlic (*Allium sativum*) is a hardy perennial member of the onion family. It is thought to be native to Central Asia.
- Garlic produces a cluster of cloves rather than one large bulb. Each bulb contains a dozen or more cloves and is covered with a thin white skin.
- Washington is a top producer of garlic. There is even a garlic variety named after a town in Washington—Inchelium! This variety was first grown on the Colville Indian Reservation, located in Inchelium, Washington.
- Leeks (*Allium porrum*) do not produce bulbs like onions and garlic but have a small root end that grows underground with long edible stalks and dark green tops that grow above ground.
- Leek stalks taste similar to onions but are sweeter, milder, and more tender.
- Leeks grow well in Washington, especially in cool weather, which makes them a great winter and early-spring vegetable.

## Grow It

- Garlic plants do not produce true seeds, but cloves from the bulb can be saved and planted in the fall or very early spring. Each clove will grow into a fresh garlic plant, genetically identical to the previous plant. Start by breaking a garlic bulb into individual cloves and planting each one pointy side up. Place cloves about two inches deep and four inches apart in loose, well-drained soil with full sun. Keep the soil moist but not soggy as it grows. Garlic is ready to harvest in mid to late summer when the lower leaves turn brown. Using larger cloves when planting will produce bigger bulbs.
- Hardneck garlic produces a large green flower stalk that grows above ground. The flower stalk, also called a scape, holds miniature cloves of its own and can be cut and eaten while the garlic bulb is still growing underground. This may be a good option for school gardens because scapes can be picked and used before summer. Once picked, or “harvested,” hardneck garlic varieties should be eaten fresh. They do not store as long as softneck varieties.
- Softneck garlic does not create a scape but still grows bright green tops above ground. Softneck garlic tends to be more productive and faster growing than hardneck because it does not use energy growing a scape and has more available energy to grow bulbs below ground. Once harvested, the green tops can be kept attached and braided together with other mature garlic plants. Clusters of braided garlic can be hung to dry, or “cure.” Curing garlic allows it to be stored longer.





## Grow It

- Onions can be planted in early spring, using small bulbs called “sets.” Plant them about one inch deep and four inches apart in fertile, well-drained soil with full sun. They need regular watering because their roots are shallow. Set onions take about 3 months to grow and are ready to harvest when the tops fall over and dry out. The size of the onion bulb depends on day length, so choosing the right variety for your region is important. Green onions may be a better alternative for school gardens, as they only take about 30 days to grow. They can be planted from sets or from seed in the early spring and harvested once they have grown to about one inch in diameter at the base.
- Leeks are planted in early spring, often started indoors and then transplanted outside. Plant seedlings about 6 inches deep and 6 inches apart in rich, moist soil with full sun. They need consistent watering and take about 4–6 months to grow. As they grow, soil or compost can be incrementally mounded up around the base of the stems to keep them white and tender. Leeks are ready to harvest when the stems reach about 1 inch thick.





## Easy Summer Salad Lesson Plan

Be sure to follow local Food Safety rules and regulations. Learn more here: [Food Safety Rules and Regulations | Washington State Department of Health](#).

### Learn It

For children and adults

Equipment List:

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Bowl             | <input checked="" type="checkbox"/> Knives         | <input checked="" type="checkbox"/> Measuring spoons    |
| <input checked="" type="checkbox"/> Spoon            | <input checked="" type="checkbox"/> Cutting Boards | <input checked="" type="checkbox"/> 1 cup measuring cup |
| <input checked="" type="checkbox"/> Vegetable Peeler |  |   |

What You Say	What You Do
<p>Today we are going to make Easy Summer Salad. Let's read through the recipe first.</p> <p>What is the first thing that we need to do before preparing food?</p> <ul style="list-style-type: none"> <li>(Answer: Wash our hands.)</li> </ul>	<ul style="list-style-type: none"> <li>Pass out the recipe, read aloud together.</li> <li>Prompt participants to wash their hands by wetting hands with warm water, putting soap in their hands, scrubbing for 20 seconds, then rinsing thoroughly.</li> </ul>
<p>This recipe uses 4 vegetables. Can you name them?</p> <ul style="list-style-type: none"> <li>(Answer: Cucumber, onion, tomato, and garlic.)</li> </ul> <p>How many cups of vegetables do we eat each day?</p> <ul style="list-style-type: none"> <li>(Answer: It depends on our age. 1 cup for young children and 2-3 for older children and adults).</li> </ul>	<ul style="list-style-type: none"> <li>Hold up each vegetable for participants to see. Call on someone who would like to answer.</li> <li>Show 1 cup measuring cup, for size reference.</li> </ul>



## Easy Summer Salad Lesson Plan

What You Say	What You Do
<p>We will be peeling the cucumber and onion before cubing them.</p> <p>We will also be cubing the tomato.</p> <p>What does the term cube mean?</p> <ul style="list-style-type: none"> <li>(Answer: To cut into small squares.)</li> </ul> <p>What do we need to do to the vegetables before cutting them?</p> <ul style="list-style-type: none"> <li>(Answer: Wash them.)</li> </ul> <p>We will be using a knife and cutting board to cube the vegetables. What are some things we need to remember about knife and cutting board skills?</p>	<ul style="list-style-type: none"> <li>Call on someone who would like to answer.</li> <li>Review and demonstrate knife safety skills, including:               <ol style="list-style-type: none"> <li>A knife is not a toy. It is a tool, and should be treated with care and respect.</li> <li>Always move slowly and deliberately when using a knife. Know where the blade is going to land.</li> <li>Curl fingers under like a claw to protect your fingertips while cutting.</li> </ol> </li> </ul>
<p>When we measure the lemon juice and oil, it is a good idea to measure over another bowl rather than the serving bowl, so that if we overfill our measuring spoon, the excess goes into that bowl rather than the serving bowl.</p>	<ul style="list-style-type: none"> <li>Demonstrate measuring over a small bowl versus the serving bowl.</li> </ul>

## Easy Summer Salad Recipe

### Make It

Be sure to follow local Food Safety rules and regulations. Learn more here: [Food Safety Rules and Regulations](#) | [Washington State Department of Health](#).

Recipe: Easy Summer Salad  
Yield: 12 sample size servings

Ingredients	Directions
<ul style="list-style-type: none"> <li>• 1 cucumber, peeled and cubed</li> <li>• 1/4 red onion, peeled and cubed</li> <li>• 2 tomatoes, cubed</li> <li>• 1 clove garlic, minced</li> <li>• 2 Tablespoons (Tbsp) lemon juice</li> <li>• 1 Tbsp vegetable oil</li> <li>• 1/4 teaspoon salt</li> <li>• black pepper, to taste</li> </ul>	<ol style="list-style-type: none"> <li>1. Add cucumbers, onions, tomatoes, and garlic in a large bowl.</li> <li>2. Stir in lemon juice, vegetable oil, salt, and pepper until well mixed.</li> <li>3. Serve at room temperature or chill in the refrigerator for at least 1 hour before serving.</li> </ol>

This lesson plan and recipe was adapted from South Dakota State University Extension's [Pick it! Try it! Like it! Curriculum](#).

Explore interactive taste test resources to encourage participants to try what you made! [Taste-Testing Event Resources](#)



Walla Walla Sweet Onions, credit: WSDA

## Eat It

- Since alliums are typically used in small quantities to add flavor to food, they do not contribute significant nutritional value to most meals; however, they can be added to nutrient-rich foods to make them more flavorful and appealing.
- Allium's strong smell is caused by chemicals called organosulfides, which, when used in larger quantities, may have meaningful health impacts. To learn more, you can research some of these cool nutrients:
  - Flavonoids
  - Quercetin
  - Allicin



Onion harvest, credit: WSDA

## Read It

- [Ode to an Onion](#), by Alexander Giardino
- [May Your Life Be Deliciosa](#), by Michael Genhart
- [Stinky and Stringy: Stem & Bulb Vegetables](#), by Meredith Sayles Hughes
- [Leeks Rainy Day](#), by Joanne Roach

## More About It

- Lesson for youth and adults by South Dakota State University Extension: [Leeks Lesson Plan for Schools and Adults](#)
- Lesson for 3rd-5th grade: [Apple Science: Comparing Apples and Onions](#) | [Washington Agriculture in the Classroom](#)
- Activities for all ages from Oregon Harvest for Schools: [Leeks Activities](#) - Oregon Harvest for Schools
- Garlic facts for all ages from North Dakota State University Extension Service: [From Garden to Table](#)
- Additional resources: [Washington Grown Food & Recipe Kit](#)

