



**SOUTH DAKOTA STATE  
UNIVERSITY EXTENSION**

**In season:**



**Summer**

# Cauliflower

## Lesson Plan

### Objectives

Participants will:

- identify cauliflower as a vegetable from MyPlate.
- increase knowledge in the growth, selection, storage and use of cauliflower.
- prepare and taste food that includes cauliflower.
- demonstrate the use of equipment needed in the preparation of a cauliflower recipe and the cooking terms used.

### Items Needed for the Lesson

- My Plate poster
- Parts of a Plant visual
- Vegetable Subgroups visual
- ½ cup measuring cup, ruler
- Visual of or a real cauliflower transplant
- Visual of or an actual head cauliflower
- Bag from frozen cauliflower or frozen cauliflower vegetable blends
- Knife and cutting board/vinegar and lemon juice
- Example of a microwave safe dish

### Handouts or Take Home Items

- Pick It! Try It! Like It! Preserve It! fact sheet

### Recipe Choices

- Savory Cauliflower
- Cauliflower Shells with Cheese

### Cooking and Food Safety Skill Sheets

- Handwashing
- Knife Safety and Cutting Boards
- Stove Top Safety
- Blender Use and Safety
- Measuring Liquid and Dry Ingredients

### Other Cooking and Food Safety Skills

- Cooking terms - boil, blend, chop and whisk
- Whole grain substitutions

### Supplies for Cauliflower Lessons

- Savory Cauliflower
  - » Knives
  - » Cutting boards
  - » Pan with lid
  - » Large pan
  - » Measuring cups and spoons
  - » Strainer
  - » Spoon
  - » Stove or electric burner
- Cauliflower Shells with Cheese
  - » Large saucepan
  - » Liquid measuring cup
  - » Knife
  - » Cutting board
  - » Measuring cups and spoons
  - » Strainer
  - » Blender
  - » Spoon

What You Say:	What You Do:
<p>Every class we're going to learn about a different fruit or vegetable. I'm going to give you some clues and I want you to try to think of what it is. After each clue, raise your hand if you think you know what it is.</p> <ul style="list-style-type: none"> <li>Some believe that this vegetable originally came from Cyprus.</li> <li>Mark Twain wrote that this vegetable is "nothing but a cabbage with a college education".</li> <li>When put in a food processor and pulsed until it looks like rice, this vegetable can be used in place of rice or used in homemade pizza crust.</li> </ul> <p>(Answer: Cauliflower.)</p>	<ul style="list-style-type: none"> <li>Name off each clue, allow a few guesses before moving on to the next clue.</li> <li>After someone guesses the answer, or you tell them, show them visuals of cauliflower.</li> </ul>
<p>Cauliflower is a vegetable that is in the same family as broccoli and cabbage. There are 5 subgroups of vegetables: dark green, red and orange, beans and peas, starchy and others. We need to make sure that we are eating from each of these groups because each has different vitamins and nutrients in them.</p> <p>Do you know what subgroup cauliflower is in? (Answer: Others.)</p> <p>Cauliflower is most commonly white, but there are also orange and purple varieties.</p>	<ul style="list-style-type: none"> <li>Show the Vegetable Subgroups visual.</li> <li>Call on someone who would like to answer.</li> </ul>
<p>Different vegetables also come from different parts of the plant.</p> <p>Vegetables are either a root, stem, leaf, fruit, flower or seed.</p> <p>What part of the plant do you think cauliflower is? (Answer: Flower.)</p> <p>Do you know why flowers are important to plants? (Answer: Flowers are important in making seeds. Flowers attract pollinators such as bees and butterflies that will help fertilize the flower. After the flower is fertilized, a fruit will begin forming.)</p>	<ul style="list-style-type: none"> <li>Show the Parts of the Plant visual.</li> <li>Call on participants that would like to answer.</li> </ul>
<p>As we have already mentioned, cauliflower is a vegetable. As MyPlate shows, we should be filling <math>\frac{1}{2}</math> our plates with fruits and vegetables. Depending on your age and gender, we should be eating between 1-4 cups of vegetables a day.</p> <p>A <math>\frac{1}{2}</math> cup of raw or cooked cauliflower pieces is equal to <math>\frac{1}{2}</math> cup from the MyPlate vegetable group.</p> <p>Why would we want to eat cauliflower? (Answer: Cauliflower is high in vitamin C, a good source of folate, and helps us reach the recommended daily vegetable intake.)</p>	<ul style="list-style-type: none"> <li>Show the MyPlate poster.</li> <li>Refer to the Daily Recommendations visual for specific age groups.</li> <li>Show a <math>\frac{1}{2}</math> cup measuring cup.</li> <li>Call on someone who would like to answer.</li> </ul>

What You Say:	What You Do:
<p>Have any of you tried to grow cauliflower before?</p> <p>Cauliflower is a cool-season vegetable. It is harder to grow than some of the other vegetables in the cabbage family.</p> <p>Cauliflower is best started from transplants rather than seeds. It needs to be planted early enough that it reaches maturity before the really hot weather arrives, but not too early so that it is damaged by the cold.</p> <p>Transplants should be planted 18-24 inches apart in a row. The cauliflower plant likes consistent, even watering.</p> <p>When a 2-3 inch head of white begins to form, the outer leaves of the cauliflower plant should be tied together over the center of the plant. This is called blanching and is done to protect the white head from the sun and from turning a green color which causes a different flavor. Leaves of some varieties of cauliflower do this naturally and do not need to be tied.</p>	<ul style="list-style-type: none"> <li>• Show a picture of a cauliflower transplant if possible.</li> <li>• If possible, demonstrate or show how the leaves would be tied over the center of the plant.</li> </ul>
<p>The cauliflower head or "curd" grows rapidly. It grows to about 6-8 inches in diameter within 7-12 days following the leaves being tied over the plant.</p>	<ul style="list-style-type: none"> <li>• Have a ruler to emphasize how far apart the plants should be in the garden, how a 2-3 inches head would appear, and what 6-8 inches in diameter would look like.</li> </ul>
<p>Cauliflower heads are harvested by cutting the main stem of the plant. Plants only produce 1 head of cauliflower, so after harvest the plant can be removed from the garden.</p>	
<p>If you are buying cauliflower in the grocery store, look for compact, solid, heavy, creamy white heads or curds with bright green, firmly attached leaves. Avoid cauliflower that has brown spots or is discolored.</p> <p>Do not rinse cauliflower until you are ready to use it. Pull off all of the outer leaves, trim and then cut off the stem close to the head.</p> <p>To store cauliflower, place it in a plastic bag and refrigerate for 5-7 days.</p> <p>Fresh cauliflower can be purchased as a whole head or in pre-cut pieces which may cost more.</p> <p>Cauliflower can also be found in the freezer section of the grocery store in bags of all cauliflower or in vegetable blends.</p>	<ul style="list-style-type: none"> <li>• Show a head of cauliflower and point out the good qualities.</li> <li>• Demonstrate how to trim the leaves and cut the stem from cauliflower.</li> <li>• Show bags from cauliflower and cauliflower blends if available.</li> </ul>

What You Say:	What You Do:
<p>What are some ways that we can eat cauliflower? (Possible answers: Raw by itself or in salads, cooked, steamed, microwaved, roasted, prepared as a side dish or mixed with other foods as part of a main dish.)</p>	<ul style="list-style-type: none"> <li>• Call on those who would like to tell how they eat cauliflower.</li> </ul>
<p>To steam cauliflower: Place the cauliflower stem side down in a covered pan with 2 inches of boiling water. After 2-3 minutes, remove the cover for 15 seconds to let the odors escape. Continue to cook until tender. A whole head of cauliflower will take 12 or more minutes.</p> <p>To prevent cauliflower from turning yellow when steaming, add 2 Tablespoons of lemon juice or 1 teaspoon vinegar to the water.</p>	<ul style="list-style-type: none"> <li>• Show containers of lemon juice and vinegar as well a teaspoon and Tablespoon measure.</li> </ul>
<p>To sauté cauliflower: Spray a skillet with cooking spray or use a small amount of oil and add thinly sliced cauliflower to the heated pan. Saute 3-4 minutes or until the cauliflower is tender and slightly browned.</p>	<ul style="list-style-type: none"> <li>• Show how to slice cauliflower for sautéing.</li> </ul>
<p>To microwave cauliflower: Place 2 cups of cauliflower pieces in a microwavable dish. Add ¼ cup of water. Cover the dish. Cook on high power for 3 minutes. Let the cauliflower stand covered for an additional 2 minutes to complete cooking.</p>	<ul style="list-style-type: none"> <li>• Discuss what types of dishes can be used for microwaving cauliflower.</li> </ul>
<p>Now that we have discussed some ways to prepare cauliflower, would you like to try out a cauliflower recipe?</p> <p>What is the first thing that we need to do before preparing food? (Answer: Wash our hands.)</p>	<ul style="list-style-type: none"> <li>• Review Handwashing skill sheet.</li> </ul>



# Use this page if you are going to prepare Savory Cauliflower

## Equipment List

- Knives
- Cutting boards
- Pan with lid
- Large pan
- Measuring cups and spoons
- Strainer
- Spoon
- Stove or electric burner

What You Say:	What You Do:
<p>Today we are going to make Savory Cauliflower.</p> <p>Let's read through the recipe together.</p> <p>Cauliflower is a vegetable. What other vegetables are in this recipe? (Answer: Onion and tomatoes.)</p>	<ul style="list-style-type: none"> <li>• Read recipe aloud.</li> <li>• Call on people or prompt after naming each ingredient.</li> </ul>
<p>As we talked about earlier, when we look at MyPlate, ½ of the plate is fruits and vegetables. We should be eating between 1-4 cups of vegetables per day depending on our age and gender.</p>	
<p>We are going to chop the cauliflower, onion and tomatoes.</p> <p>What does the term chop mean? (Answer: To cut solids into pieces with a sharp knife or other chopping device.)</p> <p>We will be using knives and cutting boards to accomplish this task.</p> <p>We will be using the stove today to prepare the Savory Cauliflower.</p>	<ul style="list-style-type: none"> <li>• Call on someone who would like to answer. Define the term "chop".</li> <li>• Go over Knife Safety and Cutting Boards skill sheet.</li> <li>• Refer to Stove Top Safety skill sheet.</li> </ul>
<p>The cauliflower is going to be put in a pan with water and boiled for 3 minutes.</p> <p>What does the cooking term boil mean? (Answer: To heat liquid until bubbles break continually on the surface of the liquid.)</p>	<ul style="list-style-type: none"> <li>• Call on someone who would like to answer. Define the term "boil".</li> </ul>
<p>In step 3, after boiling for 3 minutes, it tells us to remove the cover from the pan and cook for 15 seconds. Does anyone remember from the lesson why this is done? (Answer: To allow odors to escape.)</p>	<ul style="list-style-type: none"> <li>• Allow discussion of the lesson.</li> </ul>
<p>As we look at this recipe, we see that there is no salt added. What is used to season the cauliflower? (Answer: Garlic powder and pepper as well as the parsley and Parmesan cheese.)</p>	

# Use this page if you are going to prepare Cauliflower Shells with Cheese

## Equipment List

- Large saucepan
- Liquid measuring cup
- Knife
- Cutting board
- Measuring cups and spoons
- Strainer
- Blender
- Spoon

What You Say:	What You Do:
<p>Today we are going to be making Cauliflower Shells with Cheese.</p> <p>Let's read through the recipe together.</p> <p>What food groups are represented in this recipe? (Answer: Grain, Vegetable, Dairy.)</p> <p>What kind of pasta does the recipe call for? (Answer: Whole wheat.)</p> <p>MyPlate tells us to make <math>\frac{1}{2}</math> of our grain servings whole grains. To eat more whole grains, we can substitute a whole grain product for a refined grain product as this recipe did.</p> <p>Whole grains contain the entire grain kernel – the bran, the germ and the endosperm. Whole grains are important sources of nutrients such as B vitamins and fiber.</p>	<ul style="list-style-type: none"> <li>• Pass out recipes and read aloud.</li> <li>• Call on participants or prompt after naming out each ingredient – point to each food group you discuss.</li> <li>• Discuss whole grains.</li> </ul>
<p>We are going to put 6 cups of water in a pot and bring to a boil.</p> <p>What kind of measuring utensil are we going to use to measure the water as well as any liquid ingredient? (Answer: Liquid measuring cup.)</p> <p>What does the cooking term boil mean? (Answer: To heat liquid until bubbles break continually on the surface of the liquid.)</p>	<ul style="list-style-type: none"> <li>• Call on someone who would like to answer.</li> <li>• Show a liquid measuring cup and refer to Measuring Liquid and Dry Ingredients skill sheet.</li> <li>• Define the term "boil".</li> </ul>
<p>The cooked cauliflower, milk and garlic salt are going to be put in a blender and blended until smooth.</p> <p>What are some things we need to remember when using a blender?</p> <p>What does the cooking term blend mean? (Answer: To incorporate two or more ingredients thoroughly.)</p>	<ul style="list-style-type: none"> <li>• Discuss blender safety and refer to Blender Uses and Safety skill sheet.</li> <li>• Define the term "blend".</li> </ul>
<p>After the oil is heated, the recipe says to add the flour and whisk until the mixture is smooth.</p> <p>What does the cooking term whisk mean? (Answer: To beat ingredients with a fork or whisk to mix, blend or incorporate air.)</p>	<ul style="list-style-type: none"> <li>• Define the term "whisk".</li> </ul>
<p>We are going to be using the stove to prepare this recipe.</p>	<ul style="list-style-type: none"> <li>• Go over Stove Top Safety skill sheet.</li> </ul>

## Visuals



**A small head of cauliflower growing**



**Purple and orange cauliflower**



**White cauliflower**

## Cauliflower Nutrition Information

Type	Serving Size/Weight in grams	Calories	Fiber (g)	Vitamin A (International Units)	Vitamin C (mg)	Potassium (mg)	Folate (mcg)
<b>Cauliflower, raw, chopped</b>	½ cup 50 g	12	1.2	0%	23	152	28
<b>Cauliflower, chopped, cooked</b>	½ cup 62 g	14	1.7	0%	28	88	27
<b>Daily Recommendations</b> <b>RDA=Recommended daily allowance</b> <b>AI=Adequate intake</b>	1-4 cup servings of vegetables per day depending on age	Varies according to age and activity level	AI (depending on age) ranges from 14-33.6 g	RDA (depending on age) ranges from 300-900 mg	RDA (depending on age) ranges from 25-90 mg	AI (depending on age) ranges from 3,000-4,700 mg)	RDA (depending on age) ranges from 150-400 mcg

# Cauliflower Sources

## Recipe

- [myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/cauliflower-shells-cheese](https://myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/cauliflower-shells-cheese)

## Clues

- [justfunfacts.com/interesting-facts-about-cauliflower/](https://justfunfacts.com/interesting-facts-about-cauliflower/)
- [livescience.com/54552-cauliflower-nutrition.html](https://livescience.com/54552-cauliflower-nutrition.html)

## Resources

- [urbanext.illinois.edu/veggies/cauliflower.cfm](https://urbanext.illinois.edu/veggies/cauliflower.cfm)
- [fruitsandveggies.org/fruits-and-veggies/cauliflower/](https://fruitsandveggies.org/fruits-and-veggies/cauliflower/)
- [myplate.gov/](https://myplate.gov/)
- [udc.edu/docs/causes/online/cauliflowersm.pdf](https://udc.edu/docs/causes/online/cauliflowersm.pdf)

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SOUTH DAKOTA STATE  
UNIVERSITY EXTENSION

In season:



Summer

# Cauliflower

## Pick it!

Cauliflower is a compact head of undeveloped white flower buds and is in the same family as broccoli and cabbage.

Look for creamy white color, solid, clean and slightly bumpy surface.

Avoid wilted or discolored areas and speckled surfaces.

Store un-rinsed in a plastic bag in a vegetable crisper, up to 7 days.



## Try it!

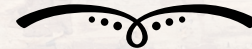
Eat raw or cooked.

Do not rinse until ready to use.

Trim off outer leaves and cut the stem close to the head.

Steam stem-side down, in 2 inches boiling water with 2 Tablespoons of lemon juice or 1 teaspoon of vinegar for 2-3 minutes.

Remove cover for 15 seconds to allow odors to escape. Cook to tenderness.



## Types of Cauliflower

**White and Orange:** White and orange varieties of cauliflower are similar. Orange has about 25 times more Vitamin A than white.

**Purple:** Buds are purple, but turn green when cooked.

**Broccoflower:** Cross between broccoli and cauliflower. Sweeter than regular cauliflower, tastes similar to broccoli.



## Did you know...

Cauliflower is a good source of vitamin C. Vitamin C helps to form collagen, a protein to make skin, scar tissue and blood vessels. Vitamin C is needed for cartilage, bones and heal wounds.



**Like it!**

## Savory Cauliflower

### Ingredients

- 1 head cauliflower, chopped
- 1 Tablespoon vegetable oil
- 1 medium onion, chopped
- ¼ teaspoon garlic powder
- 2 large tomatoes, chopped
- ½ teaspoon black pepper
- 1 Tablespoon dried parsley
- ¼ cup grated parmesan cheese

### Directions

1. Wash and chop cauliflower into 2 inch pieces. Peel and chop the onion. Wash and chop the tomatoes.
2. Put the cauliflower in a pan with 1 inch water. Cook, covered, over medium heat, and let it boil for 3 minutes. Remove cover for 15 seconds to allow odors to escape. If cauliflower is tender, drain.
3. In a large pan, heat oil. Add onion and cook over medium heat for 3-5 minutes.
4. Add garlic powder and cauliflower to the pan with onion. Cook for 3 minutes, stirring, until lightly browned.
5. Add the tomatoes and pepper. Cook for 5 more minutes.
6. Serve with a sprinkle of parsley and cheese.

Yields 6 servings

Nutrition Facts per Serving:  
Calories 80; Fat 3.5g; Cholesterol 5mg; Sodium 85mg;  
Carbs 9g; Fiber 3g; Sugars 4g; Protein 4g

Sources: [urbanext.illinois.edu/](http://urbanext.illinois.edu/)

## Cauliflower Shells with Cheese

### Ingredients

- 4 cups dry whole-wheat pasta shells
- 8 cups water
- 2 cups cauliflower, chopped
- 1 ½ cups non-fat milk
- 1 teaspoon garlic salt
- ¼ cup flour
- ¼ cup vegetable oil
- 1 cup low-fat cheese, grated

### Directions

1. Fill a pot with 6 cups of water and bring to a boil. Add pasta and cook for 8 minutes. Drain pasta.
2. Fill pot with 2 cups of water and bring to a boil. Add cauliflower and cook until soft, about 4 minutes. Drain florets.
3. Place cooked cauliflower, ½ cup milk and garlic salt in a blender and blend until smooth.
4. In another pot, heat the oil. Add flour and whisk until mixture is smooth. Add 1 cup milk and cook until it bubbles and thickens.
5. Add cheese and cauliflower and mix. Remove from heat.
6. Add pasta into sauce and serve.

Yields 2 servings

Nutrition Facts per Serving:  
Total Calories 359; Total Fat 10g, Saturated Fat 2g;  
Cholesterol 6mg; Sodium 233mg; Carbohydrates 55g,  
Dietary Fiber 6g, Total Sugars 5g, Added Sugars included  
0g; Protein 17g

Sources: [myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/cauliflower-shells-cheese](https://myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/cauliflower-shells-cheese)

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