



BEEF

What is It?

- Washington state is home to more than 9,000 cattle farms and ranches with an average of about 40 cattle per farm.
- Cattle are ruminants, meaning their stomachs have four chambers, which allow them to digest grasses. Typically, cattle are raised in pastures until they are at least one year old. Then, they are sold and transported for "finishing," where they are usually fed a grain-based diet to increase their weight quickly. Some cattle are raised entirely on pasture, or are "finished" on grass, and are called grassfed or grass-finished. This method usually produces meat with less fat.
- The first beef cattle arrived in the United States via Mexico in the 1500s, but the quantity increased in the early 1600s. In Virginia in 1620, about 500 cows roamed the fields. Less than a decade later, the population increased to 30,000 cows!
- While only about half of each animal is used for beef, the entire animal is important to the cattle industry. The parts of the animal we do not use for beef are called by-products, which are used to make many products, including soap.



Cattle, credit: WSDA



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: Beef and Broccoli Bowl Yield: 4 servings	
Ingredients	Directions
<ul style="list-style-type: none"> • Rice, soba noodles, or rice noodles • 1/4 cup lower-sodium soy sauce • 1 Tbsp cornstarch • 1 Tbsp hoisin sauce, or substitute barbeque sauce • 1 (12 oz) boneless sirloin steak, cut into thin strips • 2 tsp canola oil • 2 cups broccoli florets • 1 cup thinly sliced red onion • 1 cup chopped carrot • 1/2 cup water • 2 tsp dark sesame oil • 1/3 cup sliced green onions 	<ol style="list-style-type: none"> 1. Cook rice or noodles according to the package directions. 2. Combine soy sauce, cornstarch, hoisin sauce, water, and dark sesame oil in a medium bowl to create a marinade. Add beef, toss to coat, and set aside. 3. Heat oil in a large skillet on high heat, swirl to coat. 4. Using a slotted spoon or tongs, move beef to pan, reserving marinade. Cook 2 minutes or until browned, stirring occasionally. Remove beef from pan. 5. Add broccoli, onion, and carrot to pan; cook 4 minutes or until broccoli is crisp-tender, stirring occasionally. 6. Add reserved marinade and bring to a boil. Cook 1 minute. 7. Add beef and cook 1 minute, or until thoroughly heated. 8. Sprinkle with green onions. Serve over rice or noodles.

This recipe was adapted from adapted from [Cooking Light](#).

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



Dirt Made Our Lunch

Learn It

Objectives

This lesson is designed to teach students about the connection between soil and food. The central activity, Deconstructing a Cheeseburger, asks students to help trace ingredients back to the soil, showing how we depend on healthy soil to eat. Many of the nutrients in soil come from decomposition of dead plants and other organic matter. Plants absorb these nutrients, and in turn, our bodies absorb them when we eat plants. We refer to this as the nutrient cycle. The Dirt Made Our Lunch activity helps students understand how food scraps and plant matter break down into rich soil.

At the end of the lesson, students will be able to:

- Trace foods from origin to table.
- Describe the connection between healthy soil and healthy food.
- Understand that people need food to be healthy, have energy, and grow.
- Determine the difference between plant and animal food sources.

Supplies

- Photos or drawings that illustrate how common cheeseburger ingredients can be traced back to the soil such as:
 - Bun, flour, wheat, soil
 - Cheese, milk, cow, grass, soil
 - Burger, cattle, grass/grains, soil
 - Tomato, tomato plant, soil
 - In place of photos or drawings, write the name of each ingredient as it is traced back to the soil.
- Garden journals or paper
- Pens/pencils
- Display board
- 2 quart-sized mason jars or similar sized plastic containers with lids
- Compost piles or samples of compost in different stages of decomposition

Directions

1. Play and have children sing along to the "Dirt Made My Lunch," song by the Banana Slug String Band. Watch the band perform the song in this video: <http://youtu.be/MwgP2gCzSC4>.
2. Briefly discuss the importance of soil with a series of questions: Could we have plants without dirt? Could we have food without plants? Could we have food without soil? If teaching this lesson in the garden, have students scoop up a handful of dirt and examine it during this discussion. Leave questions open-ended as a set-up for the students to help prove how "dirt made our lunch."





Dirt Made Our Lunch

Directions

3. Ask students to brainstorm the ingredients of a cheeseburger. Draw columns on a display board for several cheeseburger ingredients and place the appropriate image at the top of the column (bun, burger, cheese, pickle, tomato, and lettuce) or write the name of the ingredient. Then, taking one cheeseburger ingredient at a time, challenge the class to trace each ingredient back to the soil. Hand out images for students to post on the display board as you connect each ingredient to the soil. For example, the cheese pictures would include cheese, milk, cow, grass, and soil. If you are not using pictures, have the students write each word on the board to trace each ingredient to the soil. After tracing each ingredient back to the soil, engage in a discussion about the many steps that take place to grow, process, and move food from the soil to your lunch plate.
4. Discuss how cattle can be grass-fed and eat grass their entire lives, or they can eat grass for a little over a year and then be switched to eating grain to gain weight faster and add flavor to the meat. How does the chart change? For older students, consider having them research the difference between grass-fed and grain-fed cattle.
5. As an extension activity, look for stages of decomposition in your garden and/or compost pile. For example, follow the decomposition of overripe fruits and vegetables periodically (e.g., 3 days, 3 weeks, 3 months) throughout the season. Have students document the stages using photos or garden journals. If you don't have access to a compost pile, bring in some items in various stages of decomposition from your home compost pile, or ask a Master Gardener in your community. Or start a school composting project! You can also compost in the classroom by putting food scraps, dried leaves, small plant parts, etc. in a zip top bag or recycled plastic 1 liter bottle or container. Mist the scraps with water and watch the process of decomposition take place.
6. For a take-home activity, ask students to write down the meal they eat at home for dinner and follow the same process, tracing each ingredient at their dinner table back to the soil.

Activity adapted from: [Got Veggies? A Garden-Based Nutrition Education Curriculum](#), by Community GroundWorks and Wisconsin Department of Health Services.





Eat It

- Beef is a nutrient powerhouse. While the specific nutritional information depends on many factors, beef is an excellent source of vitamin B12 and protein, and a good source of iron and vitamin B6. Protein helps build and repair body tissues including muscles.

Read It

- A Cow's Alfalfa-bet, by Woody Jackson
- Cows, by Lyn Stone
- Levi's Lost Calf, written by Amanda Radke and illustrated by Michelle Weber

This resource was adapted for Washington state from Montana Harvest of the Month Classroom Bites: [Beef Classroom Bites](#).



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Washington Harvest of the Season: **Beef**