

BEEF BASICS

Volume 32 / Middle School



Developed with Megan (Aden) Ferguson  
Family & Consumer Science Teacher  
Courtesy of Iowa & Wisconsin Beef Councils

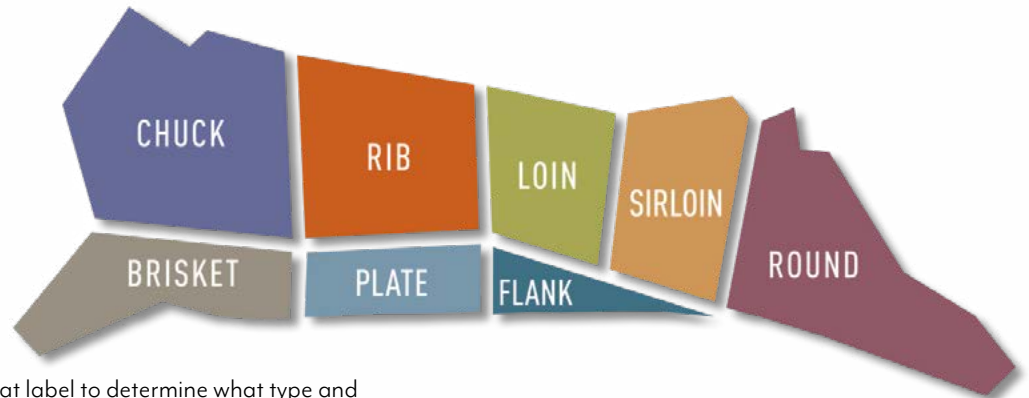
**National FCS Standards:**

**3.5** Demonstrate skills needed for product development, testing, and presentation

**3.5.3** Analyze features, prices, product information, styles, and performances of consumer goods for potential trade-offs among the components

**3.5.6** Evaluate the labeling, packaging, and support materials of consumer goods

MEAT DEPARTMENT		
WEIGHT Lb. Net	PAY	PRICE Per Lb.
0.00	\$0.00	\$0.00
BEEF ROUND	TOP ROUND	STEAK



**Overview:**

In this lesson, students will learn how to read a meat label to determine what type and where on the animal the meat is coming from. Students will learn about the primal cuts of beef and if they are locomotion or suspension muscles.

**Career Clusters & Pathways**

- Hospitality & Tourism (Restaurant & Food/Beverage Services Pathway)
- Agriculture, Food, and Natural Resources (Food Products and Processing Systems Pathway)

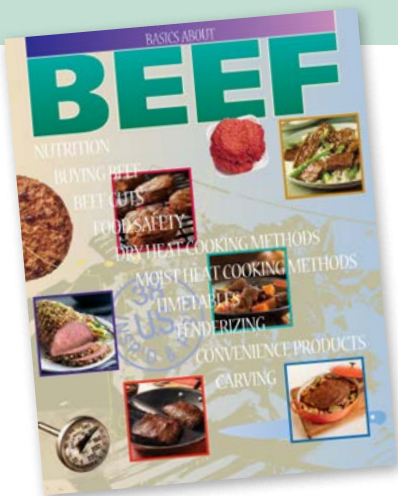
**Objectives:**

Students will...

- Read a meat label to help choose appropriate beef cuts for a certain recipe or dish
- Identify the primal beef cuts and the relative tenderness of each
- Differentiate between locomotion and suspension muscles

**Materials List:**

- Examples of Beef Labels Handout (included)
- Beef Basics Handout (included)
- Beef Primal Cuts Worksheet (included)
- Beef Made Easy® chart (included)
- *Basics About Beef* Book (go to [NascoEducation.com/lessonplans](http://NascoEducation.com/lessonplans) to download and print)



## Anticipatory Set

- Show students a picture/poster of a beef carcass (use the Beef Made Easy® chart)  
Ask: *Do you know what this is a picture of? (beef or beef carcass)*
- Tell students to write down their favorite cut of beef or beef recipe. Ask volunteers to tell what they have written down.  
Ask: *Do you know which part of the animal it comes from?*

## Body of Lesson:

How many students have ever purchased uncooked beef at the grocery store before? Have they ever gone with their parents and watched them purchase beef? Beef is categorized in a systematic way. (Hand out examples of beef labels to students or small groups of students)

1. The kind of meat is listed first on the label (also on page 10 *Basics About Beef*; go to [NascoEducation.com/lessonplans](http://NascoEducation.com/lessonplans) to download and print)
    - Have students underline the type of meat they are purchasing — beef
  2. The second name tells where the meat comes from on the animal
    - Called “primal” or wholesale cut
    - Have students put an “X” under the primal cut name — chuck, rib, loin, etc.
  3. The third name tells you what part of the primal cut the meat comes from
    - Called retail cut name (retail refers to the meat case at supermarkets)
    - Have students circle this name
- Notice beef tenderloin steak: tenderloin is a cut taken from the sirloin and loin area. Primals can have more specific names/locations than what is covered here.
  - Other information found on the package: price per pound, number of pounds in the package, and the total price of the cut

Give each student, or each pair of students, the Beef Basics handout and Beef Primal Cuts worksheet for them to fill in as they learn each primal. The teacher should guide students through the beef basics handout and students should complete the beef primal cuts worksheet as each area is explained.

## Practice:

Have students flip over their meat labels. On the back of their meat labels, have students indicate whether the muscle they are purchasing is a suspension or locomotion muscle. With a partner, have students discuss their cut of beef and what type of muscle it is — partners should check their peers’ muscle type to make sure they correctly categorized their cut of meat.

## Conclusion:

The last few minutes of class, have students create a “3-2-1.” Students will get out a blank sheet of paper and write down three important ideas from the day’s lesson or related material, two questions they have about the day’s lesson or a related topic, and one main theme/idea they will keep from the day’s lesson.

## Interactive Strategies:

- The “3-2-1” activity is an interactive strategy to close the lesson and have students reflect on what they have learned that day.
- Students marking symbols on their meat labels when discussing the various parts is another interactive strategy used. This helps them visually see which part is being described throughout the lesson.
- The Beef Primal Cuts worksheet is a visual way students can follow along with the lesson as each primal cut is discussed. It will be useful when they need to study for the test.

## Addressing the Diverse Learner:

Students will have the opportunity to interact with the lesson, write information down they have retained, and discuss the lesson. This caters to a variety of learning styles: linguistic, spatial, bodily-kinesthetic, and interpersonal.

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*Lesson Plans are developed with teachers with no claim of original authorship.*

<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Chuck Pot Roast</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>	<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Brisket Flat Cut</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>
<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Round Top Round Steak</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>	<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Rib Roast</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>
<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Tenderloin Steak</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>	<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Chuck Shoulder Pot Roast</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>
<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Round Bottom Round Roast</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>	<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Loin Top Loin Steak</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>
<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Flank Steak</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>	<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Loin Porterhouse Steak</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>
<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Top Sirloin Steak</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>	<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Ribeye Steak</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>
<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Chuck Eye Steak</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>	<p>Meat Department</p> <p>Net Weight: 0.00</p> <p><b>Beef Chuck Shoulder Petite Tender</b></p> <p>Total price: 0.00</p> <p>Price per lb. \$0.00/lb.</p> <p>Local Grocery Store</p>

Name: \_\_\_\_\_ Class: \_\_\_\_\_

### Primals (second name listed on the label, after the type of meat)

#### Large Muscle Sections of Meat

- Chuck — shoulder area, known for pot roasts (Letter A on Beef Primal Cuts worksheet)
- Rib — known for rib-eye steaks and prime rib (D)
- Short loin or loin — home of the T-bone steak (F)
- Sirloin — contains tender steaks (G)
- Round — the animal's back leg (I)
- Foreshank — leg of animal, one of the least tender cuts (C)
- Brisket — the animal's chest, large and boneless (B)
- Short plate — below the rib, seldom seen at meat counter; boned for ground beef (E)
- Flank — small, located just below the short loin; each carcass contains just two flank steaks (H)

### Muscle Types — Suspension & Locomotion

#### Suspension

- Muscles not used in movement of the animal; provide structure and support to animal.
- Contain very little connective tissue (which holds muscles to the bones and helps support the muscles — tough and chewy).
- Cuts from this area are very tender.
- Found along the animal's back.
- Cuts that are considered suspension include rib, loin, and sirloin. On your Beef Primal Cuts worksheet, next to these cuts, list an “S” beside the names to remind you they are muscles used for suspension.
- Since these muscles are so tender, dry heat methods are used to prepare them.
- Grilling, roasting, and stir-frying are examples of dry heat method.

#### Locomotion

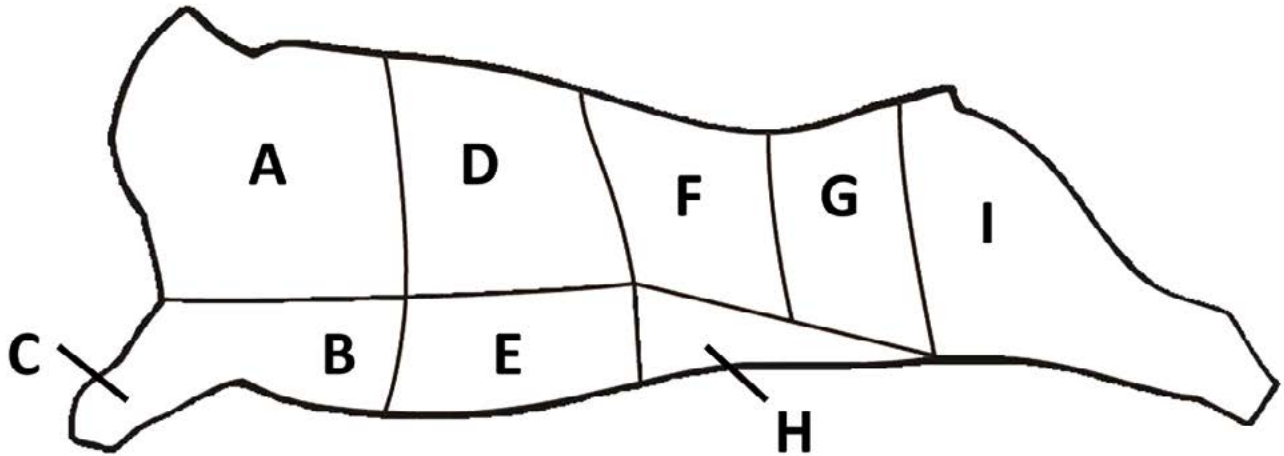
- Muscles used to move the animal.
- Contain more connective tissue than suspension.
- Round is the animal's back leg and rump, while the chuck is the shoulder.
- Think of your own arms and legs — both get a lot of movement and are typically more muscular.
- Extra motion and the extra connective tissue make these muscles less tender. The primals not considered suspension muscles are locomotion.
- Primals that are considered locomotion muscles include round, flank, short plate, brisket, shank, and chuck. Indicate which muscles are used for locomotion on your Beef Primal Cuts worksheet using the letter “L”.
- Cuts taken from these muscles are typically cooked at a low temperature with moisture to help tenderize the beef and soften the connective tissues making them tender and juicy. These methods are referred to as moist-heat methods.
- Braising, slow cooking, cooking in liquid are all examples.

*Keep in mind, the farther you get away from the center of the back of the animal, the less tender the cuts become. Key message to take away — muscles that get little movement are very tender; muscles that are used a lot have more connective tissue, so are less tender and require a form of tenderization when cooking them.*

### Important Points to Remember, Questions to Ponder, and Things to Discuss:

1. Definitions of the two types of muscles:  
Locomotion = muscles used for movement, not tender, but made tender with appropriate cooking methods.  
Suspension = used for structure, very tender.
2. How will you use the information you have learned to make future beef-buying decisions?
3. Unique features of the round cut – leg of the animal, 25% of entire carcass, large supply, cheaper purchase.
4. Next time you go to the grocery store or butcher shop, based on what you have learned, compare the prices of meat coming from the locomotion muscles versus the suspension muscles (cuts from the tender cuts, rib, short loin, and sirloin, are more expensive than less tender cuts).
5. What would happen if you cooked a less tender cut (locomotion muscle) on the grill?
6. Ground beef comes from pieces of trim as the carcass is cut into retail cuts; primal may be ground into ground chuck, ground round, ground sirloin.

Name: \_\_\_\_\_ Date: \_\_\_\_\_



### Beef Primal Cuts

Please label primal cuts from the above diagram on the lines below. Next to each cut name, write a letter "L" if the muscle is for locomotion or a letter "S" if the muscle is for suspension.

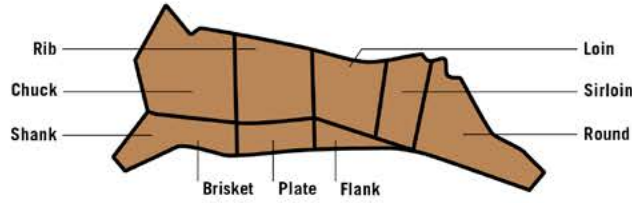
- A \_\_\_\_\_
- B \_\_\_\_\_
- C \_\_\_\_\_
- D \_\_\_\_\_
- E \_\_\_\_\_
- F \_\_\_\_\_
- G \_\_\_\_\_
- H \_\_\_\_\_
- I \_\_\_\_\_

#### Word Bank

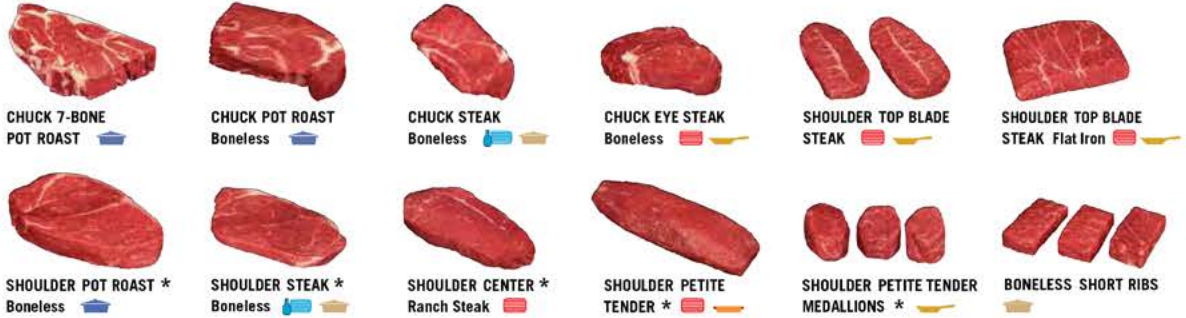
- Plate
- Flank
- Round
- Sirloin
- Fore Shank
- Brisket
- Rib
- Chuck
- Short Loin

# Beef Made Easy®

## Retail Beef Cuts and Recommended Cooking Methods



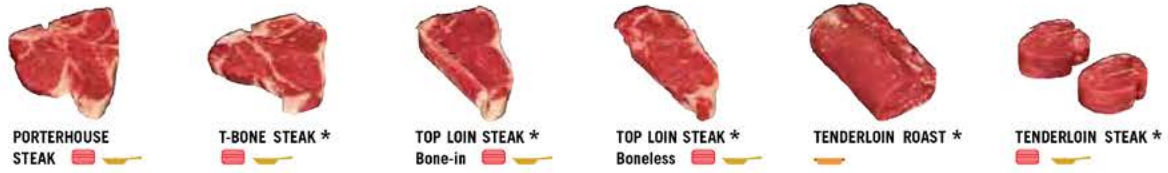
### Chuck



### Rib



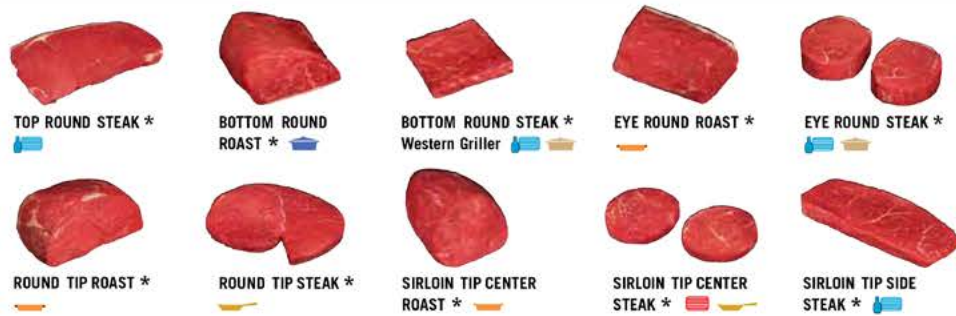
### Loin



### Sirloin



### Round



### Shank and Brisket



### Plate and Flank



### Other



#### Key to Recommended Cooking Methods



\* These cuts meet government guidelines for "lean" and are based on cooked servings with visible fat trimmed.  
Lean is defined as less than 10 g of total fat, 4.5 g of saturated fat, and less than 95 mg of cholesterol per serving and per 100 g (3.5oz).