

From the  
GAP Kitchen of  
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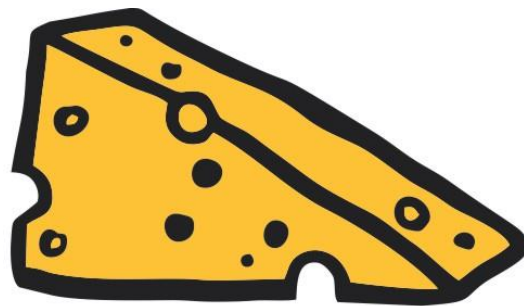


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LESSON PLAN:

It's ALL About

the Cheese!



**OBJECTIVE:** To understand types of cheese. See, taste & make types of cheeses.

**EQUIPMENT NEEDED:**

- Pot
- Wooden spoon
- Measuring cup/spoons
- Teaspoon
- Sieve
- Stove or induction burner
- Collander

**FOR DISCUSSION:**

What's your favorite cheese and why?

Show videos:

- What is Cheese?: <https://www.youtube.com/watch?v=lc6czILEZ0>
- Science & Art of Cheese <https://www.youtube.com/watch?v=8G6yzLSByHQ>

We will review the 5 Categories of Cheeses:

1. Hardness (moisture)
2. Milk type
3. Mold
4. Brined
5. Processed

We will also review the different types of casings, how to cut cheese, and how to store it.

Finally, we will make different recipes exploring these topics.



## 1) Category of Cheese: Hardness

There are five main categories of cheese in where hardness is assessed, which include soft cheese, semi-soft cheese, medium-hard cheese, semi-hard, and hard cheese

### a. Soft cheese- “Fresh cheese”

- Cream cheeses that are not matured (fresh cheeses).
- **Brie and Neufchâtel** are soft-type cheeses that mature for more than a month.

### b. Semi-soft cheese

- Semi-soft cheeses aged 60 days or less, and the sub-group *Monastery*, cheeses have a high moisture content and tend to be mild tasting.
- Some well-known varieties include **Havarti, Munster and Port Salut**.

### c. Medium-hard cheese

- Cheeses that range in texture from semi-soft to firm include Swiss-style cheeses such as **Emmental and Gruyère**.
- The same bacteria that give such cheeses their eyes also contribute to their aromatic and sharp flavours.
- Other semi-soft to firm cheeses include **Gouda, Edam, Jarlsberg, Cantal, and Caşcaval**. Cheeses of this type are ideal for melting and are often served on toast for quick snacks or simple meals.



#### d. Semi-hard cheese

- Harder cheeses have a lower moisture content than softer cheeses. They are generally packed into molds under more pressure and aged for a longer time than soft cheeses.
- Cheeses that are classified as semi-hard to hard include the familiar **Cheddar**, originating in the village of Cheddar in England but now used as a generic term for this style of cheese, of which varieties are imitated worldwide and are marketed by strength or the length of time they have been aged.
- Cheddar is one of a family of semi-hard or hard cheeses (including **Cheshire and Gloucester**), whose curd is cut, gently heated, piled, and stirred before being pressed into forms.
- **Colby and Monterey Jack** are similar but milder cheeses; their curd is rinsed before it is pressed, washing away some acidity and calcium.
- A similar curd-washing takes place when making the Dutch cheeses **Edam and Gouda**.

#### e. Hard cheeses

- Also known as "grating cheeses" such as **Parmesan and Pecorino Romano**—are quite firmly packed into large forms and aged for months or years.

### 2) Category of Cheese: Milk Type

There are four different milk types where cheese comes from the milk of a specific animal including cow, sheep, goat, and moose.

- a. Cow (we will mostly focus on cheeses made from cow's milk in this lesson)
- b. Sheep
- c. Goat
- d. Moose

### 3) Category of Cheese: Mold

There are three main categories of cheese in which the presence of mold is an important feature: soft ripened cheeses, washed rind cheeses and blue cheeses.

#### a. Soft-ripened

Soft-ripened cheeses begin firm and rather chalky in texture but are aged from the exterior inwards by exposing them to mold. The mold may be a velvety bloom of *P. camemberti* that forms a flexible white crust and contributes to the smooth, runny, or gooey textures and more intense flavors of these aged cheeses. Brie and Camembert, the most famous of these cheeses, are made by allowing white mold to grow on the outside of a soft cheese for a few days or weeks. Goat's milk cheeses are often treated in a similar manner, sometimes with white molds (Chèvre-Boîte) and sometimes with blue.

#### b. Washed-rind

Washed-rind cheeses are soft in character and ripen inwards like those with white molds; however, they are treated differently. Washed-rind cheeses are periodically

cured in a solution of saltwater brine and/or mold-bearing agents that may include beer, wine, brandy and spices, making their surfaces amenable to a class of bacteria *Brevibacterium linens* (the reddish-orange "smear bacteria") that impart pungent odors and distinctive flavors, and produce a firm, flavorful rind around the cheese. Washed-rind cheeses can be soft (Limburger), semi-hard, or hard (Appenzeller). The same bacteria can also have some impact on cheeses that are simply ripened in humid conditions, like Camembert. The process requires regular washings, particularly in the early stages of production, making it quite labor-intensive compared to other methods of cheese production.



#### FOR DISCUSSION:

Compare and contrast the differences and similarities between soft-ripened and washed-rind cheeses.

Show videos:

- Devour.TV - Cheese 101 - Washed Rind Cheese: <https://www.youtube.com/watch?v=D9eMaiu0sBI>
- Cheese Washing: <https://www.youtube.com/watch?v=x5JNTKxKwo4>

#### c. Smear-ripened

Some washed-rind cheeses are also smear-ripened with solutions of bacteria or fungi (most commonly *Brevibacterium linens*, *Debaryomyces hansenii*, and/or *Geotrichum candidum*) which usually gives them a stronger flavor as the cheese matures. In some cases, older cheeses are smeared on young cheeses to transfer the microorganisms. Many, but not all, of these cheeses have a distinctive pinkish or orange coloring of the exterior. Unlike with other washed-rind cheeses, the washing is done to ensure uniform growth of desired bacteria or fungi and to prevent the growth of undesired molds. Notable examples of smear-ripened cheeses include Munster and Port Salut.



**d. Blue**

So-called blue cheese is created by inoculating a cheese with *Penicillium roqueforti* or *Penicillium glaucum*. This is done while the cheese is still in the form of loosely pressed curds, and may be further enhanced by piercing a ripening block of cheese with skewers in an atmosphere in which the mold is prevalent. The mold grows within the cheese as it ages. These cheeses have distinct blue veins, which gives them their name and, often, assertive flavors. The molds range from pale green to dark blue, and may be accompanied by white and crusty brown molds. Their texture can be soft or firm. Some of the most renowned cheeses are of this type, each with its own distinctive color, flavor, texture and aroma. They include Roquefort, Gorgonzola and Stilton.

**4) Category of Cheese: Brined or Pickled Cheese**

**a. Brined or pickled cheese**

This cheese is matured in a solution of brine in an airtight or semi-permeable container. This process gives the cheese good stability, inhibiting bacterial growth even in hot countries. Brined cheeses may be soft or hard, varying in moisture content, and in color and flavor, according to the type of milk used; though all will be rindless, and generally taste clean, salty and acidic when fresh, developing some piquancy when aged, and most will be white. Varieties of brined cheese include bryndza, feta, halloumi, and sirene. Brined cheese is the main type of cheese produced and eaten in the Middle East and Mediterranean areas.

**5) Category of Cheese: Processed Cheese**

**a. Processed cheese** is made from traditional cheese and emulsifying salts, often with the addition of milk, more salt, preservatives, and food coloring. Its texture is consistent, and melts smoothly. It is sold packaged and either pre-sliced or unsliced, in several varieties. Some are sold as sausage-like logs and chipolatas (mostly in Germany and USA), and some are molded into the shape of animals and objects. It is also available in aerosol cans in some countries. Some, if not most, varieties of processed cheese are made using a combination of real cheese waste (which is steam-cleaned, boiled and further processed) whey powders, and various mixtures of vegetable and/or palm oils and fats. Some processed "cheese" slices contain as little as 2-6% cheese; some have smoke flavors added.

**FOR DISCUSSION:**

Compare and contrast the differences and similarities between brined and processed cheese.

Show videos:

- Out & About with Martha Stewart: Murray's Cheese Caves Tour in NYC:  
<https://www.youtube.com/watch?v=fRrZNITZ3Gk>

## 6) Difference Types of Casings

There are four different types of casings of cheese which include wax, cloth, ash, and plastic.

- a. Wax - not edible
- b. Cloth (bandage) - not edible
- c. Ash - edible
- d. Plastic- not edible

## 7) How to Cut Cheese

There are a few different ways to cut cheese to serve it which includes using a cheese knife, peelers, or fishing line.

- a. Cheese knife
- b. Peelers/Shaver
- c. Fishing line

## 8) Storage

Finally, the best way to store cheese is using parchment or wax paper. Before you store cheese, you'll have to wrap it. Plastic wrap is out of the question — in fact, wrapping cheese in plastic wrap will only make it go bad faster. Instead, opt for parchment paper or wax paper, which will allow the cheese to breathe and prevent additional moisture.

## 9) Recipes

### a. The Making of a Soft Cheese: Queso Fresco

For reference:

<https://www.chilipeppermadness.com/cooking-with-chili-peppers/how-to-make-queso-blanco/>

#### Ingredients:

- Whole Milk - 1 Gallon
- White Vinegar -  $\frac{3}{4}$  cup
- Lime (optional)-  $\frac{1}{2}$  Tablespoon
- Salt – to taste

#### Instructions:

- 1) Put in pan 1 gallon of milk into a pot and set it on medium/low (making sure it will not burn). Do not let the milk boil.
- 2) Turn off the heat on the stove. Stir in the vinegar and lime juice if using a spoonful at a time.
- 3) Continue to stir as you watch the milk clump up and “curdle.” It will be obvious as milk clumps, or “curds”, form and separate from the watery substance, or “whey”.
- 4) Next, set a lined colander with cheesecloth over a large bowl and strain the curds from the whey.
- 5) Add salt to taste and crumble cheese as needed.

**b. The Making of a Semi-Soft Cheese: Mozzarella:**

For reference:

<https://youtu.be/VcUZTrbR16o>

Ingredients:

- Fresh Mozzarella Curd - 2.5 pounds (you can use the same curds you made in the Queso Fresco recipe above)
- Salt - 2.5 Tablespoons
- Hot Water 175-180 deg F - 5 cups

Instructions:

- 1) ***Please be careful as you are working with very hot water!***
- 2) Dice cheese curds into 1" cubes and place into large bowl
- 3) Pour 2 cups of hot water over the sides of bowl. Don't pour directly on cheese curd (will damage the proteins and fat in the flavor that's in the cheese).
- 4) Let the bowl of cheese rest for 2 minutes so that curd is warm.
- 5) Strain the bowl of cheese with a colander to get rid of the warm water.
- 6) Add salt to the bowl of cheese.
- 7) Then, add 2 more cups of hot water onto the sides of the bowl.
- 8) Let it sit and watch until stretching of the cheese starts.
- 9) Continually turn the cheese with wooden spoon and stretch it out (want it to stretch out like a rubber band and continually even without chunks of curd).
- 10) If needed, add another cup of water (making sure not to burn the cheese).
- 11) Start to form balls of mozzarella and break as needed (video has tips for how to do certain types of forms of balls).



**c. The Making Another Soft Cheese: Fresh Cream Cheese**

For reference: <https://www.youtube.com/watch?v=tFefLWsQgAA>

Ingredients:

- 4 cups (32oz /1000ml) whole milk (full fat, not low fat)
- 2-3 tablespoons lemon juice (lime juice or white vinegar)
- 1 teaspoon salt

Instructions:

1. In a heavy-bottomed saucepan, heat the milk on med-high. Stir constantly until it starts to a rolling simmer.
2. Reduce the heat to medium. Add the lemon juice 1 tablespoon at a time, in 1-minute intervals. Continue stirring constantly.
3. Continue cooking until the mixture curdles. Stir constantly till the mixture has separated completely, this should take just a few minutes. There will be a green liquid on the bottom and thick curdles on top. Remove from the heat. This should happen within a few minutes.
4. Lay a sieve with cheesecloth over a large bowl. Pour the curd mixture into the sieve. Let it strain and cool for about 15 minutes.
5. Transfer curds to a food processor and process until curds have come together and are totally smooth and creamy. It will take around 3-4 minutes. Keep going if your cream cheese is grainy.
6. Add salt and taste. Add more if you want more flavor. Now is also a good time to add herbs, garlic or any other flavors you like. This cream cheese must be stored in the fridge. I always use it within 7 days but can last as long as up to 2 weeks.