

# FROM MILK TO CHEESE

**Focus Lesson:** From Milk to Cheese

**Materials:**

- Hot plate
- ½ gallon whole milk
- ½ of a lemon
- Slotted spoon
- Thermometer
- Pot
- Bowl

**Grade target:** Can be grade 2 or grade 5

**Time:** 45 minutes to an hour

**\*Common Core Standards:**

Grade 5:

**CCSS.ELA-LITERACY.W.5.3**

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

Grade 2:

**CCSS.ELA-LITERACY.W.2.3**

Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.

**Thinking Skill:** Creating, sensing

**Objective:**

Student will be able to understand that cheese is made from milk.

**Connection:**

Where does cheese come from?  
 What does cheese have to do with a cow? How does milk become cheese?

**Explicit Instruction:**

Read *Little Miss Muffet* to the class. Ask if anyone knows what curds and whey are. Explain to students that today the class will be making cheese and they will learn what curds and whey are.

### Guided Practice:

Create the cheese with the whole class using one pot for the demonstration.

Pour milk into pot and cover on medium-low heat, stir the milk every now and then (if you trust your students to be careful around the hot pot you can give each student a turn stirring) Heat the milk to 170-175 degrees Fahrenheit.

As the milk heats up discuss curds and whey

Curds: thick substance that forms when milk becomes sour, used to make cheese

Whey: watery part of milk that forms after the milk becomes sour, the leftover liquid

If there is additional time, review different tools and materials used to make dairy products. Use *Home Dairy* with Ashley English (Cheese tools are on p. 33)

Once milk is heated squeeze half of a lemon into a cup and slowly pour lemon into the milk while stirring. Almost immediately after adding the lemon juice, milk will separate into curds and whey.

-Remove pot from heat and let it sit for a few minutes

-Scoop the curds into a bowl and mash them with a slotted spoon (you can give each student a chance to mash the curds)

-Feel free to add any salt, pepper, garlic to flavor the cheese

Scoop cheese into Dixie cups or small plates for students to taste. Discuss flavor and texture of the 'curds'. Students could also sample prepackaged cottage cheese for comparison.

### Independent Practice:

As students sample their cheese, have them create a nursery rhyme (mirrored after *Little Miss Muffet*). Invite them to write a second verse describing the taste and texture of the curds. Their verses can be humorous, but must also include facts.

### Reflection – Group Share:

Have students share their rhymes with the class. Allow students to discuss the flavor, texture, etc. of the cheese. Offer students a chance to taste the 'whey'.

Read *Home Dairy* by Ashley English "Portrait of a Cheesemaker" on page 29 and "In the Beginning" on pages 13-14.

### Reading list:

*Home Dairy: All You Need to Know to Make Cheese, Yogurt, Butter & More* by Ashley English

*Little Miss Muffet*

### Teacher Note:

**\*\*Students that are lactose intolerant may not be able to eat the cheese.**