

Families:

Pilot Light Family Meal Lessons are designed to easily bring food education into your home. We recommend using the Family Resources in the following way:

1. Watch the Family Meal video for the lesson as a family.
2. Make the recipe as a family.
3. In the Common Core Connections section, children can learn through and about food while strengthening Common Core English Language Arts or Math skills.
4. Family Discussion questions and Extension Activities are provided to allow learners of all ages opportunities to participate in the learning experience!

**Pilot Light Family Meal Lesson****Ricotta****+ Grades 6-7+ Common Core Math - Ratios and Proportional Reasoning**

Suggested Recipe Age Range: 12 and up with adult help

Recipe by Chef Clark Kennedy-Paesler:

Ricotta (makes one pound)**Ingredients:**

- 1 gallon whole milk (not ultra pasteurized)
- 1/4 cup vinegar (apple cider, white, any works)
- 1 tsp salt
- 1/2 tsp black pepper

**Materials:**

- 1 medium heavy bottomed pot
- 1 ladle (preferable perforated with holes)
- 1 wooden spoon (for stirring)
- 1 colander (lined with a clean kitchen towel)
- 1 medium sized bowl

Directions:

1. Pour milk into pot and put up to medium heat 10 min.
2. Stir occasionally with wooden spoon, turn heat to medium high until 195 Degrees F, or until it just starts to boil!
3. Slowly stir in Vinegar with Perforated Spoon in a Up and Down motion.
4. When you see the milk begin to separate and look clear, stop stirring.
5. Let sit for 10 minutes, and then gently scoop out with perforated spoon into colander lined towel with a bowl underneath it.

PRO TIP - The whey (the liquid left in the bowl) makes a delicious liquid for soup or to make bread!

6. Let sit for 10 minutes, then mix together with salt and pepper.

Common Core Connections:

Grades 6-7 and up

Ratios and Proportional Reasoning

6.RP.A: Understand ratio concepts and use ratio reasoning to solve problems.

7.RP.A: Analyze proportional relationships and use them to solve real-world and mathematical problems.

What does this mean?

In general, Common Core Mathematics asks students to think more critically about mathematical operations - for example, students are asked not only what is 4 times 3, but also asked to explain why 4 times 3 is 12.

In this lesson, these specific Common Core math standards have students using ratios and proportions to solve problems, including real-world problems, like when you double or cut a recipe in half!

What does this look like?

Materials needed:

- Pencil
- Paper
- Calculator if needed

Directions:

You are making the ricotta recipe above, but only need a half pound for the pasta dish you will be using the ricotta for. Solve the following problems and be sure to show your work.

1. How much milk will be needed to make a half pound of ricotta?

2. How much salt and pepper are needed for a half pound of ricotta?

3. A gallon of milk is 16 cups? How many cups of milk are required to make a half pound of ricotta?

4. There are 4 cups in a quart. How many quarts of milk would you use to make a half pound of ricotta?

5. If you wanted to double the ricotta recipe, how much milk and vinegar would you need?

6. How much ricotta would be made if you used 1.5 gallons of milk and $\frac{3}{8}$ cup of vinegar?

7. A gallon of milk costs \$3.00 but with sales tax, it costs \$3.15. If sales tax stays the same, how much with tax would 3 gallons of milk cost?

Family Discussion Questions:

Families/children could discuss or write about:

- What is your favorite type of cheese?
- How many types of cheese can you name?
- What is your favorite way to eat cheese?

Extension Activities:

Here are some suggestions for additional activities that relate to this recipe:

- Research more about the science behind how milk becomes ricotta.
- Try making another type of cheese at home such as farmer cheese and compare and contrast the textures and flavors.

This original Family Lesson was written by Pilot Light Staff.