

# Cheesemaking and Fermentation

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## Lesson 2. Microbes & Yogurt

**Competency.** Students will be able to describe three kinds of beneficial microbes, mold, yeast, and bacteria. Students will be able to make yogurt.

**Learning Objectives:** Introduce students to various kinds of microbes . Teach students how to make yogurt. Encourage them to be creative in how the yogurt is incubated.

**Assessments:** successfully make yogurt

**Activities:** Use the Powerpoint lecture that introduces the topics. This also is a LONG powerpoint but flows very quickly. There are instructions in the powerpoint for making sour cream, kefir and yogurt. I usually only have time to have students make yogurt. Instructions for yogurt are offered as a stand-alone sheet of directions.

Experimenting. You can set up the lesson to have some students try incubation at lower or higher temperatures and see what happens. I typically ask students to take pictures of their incubator and to report on the results. From the New England Cheesemaking Company I usually get packets of both smooth and creamy yogurt and may have students make one jar of each kind and compare which they prefer.

Comparing. I often bring in several kinds of yogurt from the grocery store and have students sample them. I read the labels and show them how to check for the names of the microbes in the products. They may choose to use their favorite as a starter culture for their own yogurt.

**Notes:** If you have students bring in their own milk that will also provide variations in outcomes for students to compare yogurts. Have students write down observations about how their yogurt looks and tastes and how long it takes for it to turn into yogurt. Warn students it won't be as thick as store-bought yogurt which often has thickening agents added.

**Materials** needed to make yogurt. (amount for each student).

One or two pints of milk. One or two clean glass pint jars. Starter culture for yogurt as well as sour cream and kefir if your class will be making those products. Spoons



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