

Lesson Plan: Plastic Milk

Area: Chemistry

Age Group: Kindergarten-1st Grade

Supplies Needed:

- Skim Milk
- White Vinegar
- Microwavable Bowl
- Strainer
- Copy of “Little Miss Muffet”
- Food coloring (optional)

Introduction:

- Read “Little Miss Muffet” to students
- Ask them about “curds and whey” when you get to that part
- What are curds and whey? Has anyone eaten curds and whey before?

Demonstration:

- Add 4 teaspoons of white vinegar for every 1.5 cups of skim milk (For fun, food coloring can be added to the mixture)
- Microwave mixture for a minute
- Strain the mixture and make the curds into a blob
- WARNING: this experiment may smell bad

Directions:

- Give each student a blob of curds
- Allow students to make the blob into shapes or designs
- Once dry, the shape or design will harden and the students can take it home with them!

Follow-up:

- Tell students that they just witnessed a chemical reaction
- Explain to them what a chemical reaction is and that the vinegar caused the milk to separate into a liquid and a solid
- Ask them what they learned
- Brain-pop movie: <http://www.brainpop.com/science/matter/statesofmatter/>

Source: <http://pbskids.org/zoom/activities/sci/plasticmilk.html>