



## Soap Science

**Materials:** whole milk, glitter/pepper, shallow dish, dish soap, small cup/lid, toothpicks

**Background Information:** Soap is a special substance that has an attraction to both oil and water. This gives it the ability to "pick up" things on our skin and carry them away when rinsed with water. This includes germs that like to cling to our skin. While soap does not always kill germs like antibiotics or antibacterials do, it is a great way to decrease the number of germs you have on you. Fewer germs means fewer infections and a decrease in germs getting from one place to another by touching.

**STEM Career Connection:** A **microbiologist** is a scientist who studies microscopic organisms including bacteria, algae, and fungi. They often study organisms that cause disease and environmental damage. They also study the characteristics of non-living pathogens, like viruses.

**Literature Connections:** *Zooey and Sassafras: Unicorns and Germs* by Asia Citro, *Germs: Facts and Fiction, Friends and Foes* by Lesa Cline-Ransome, *Do Not Lick This Book* by Idan Ben-Barak

### Challenge:

1. Gather materials.
2. Pour a small amount of milk into the shallow dish, enough to cover the bottom is plenty.
3. Sprinkle glitter into the milk. Using many colors of glitter is fun and can represent different kinds of germs.
4. Pour a little dish soap into a small cup or lid. Dip a toothpick in the dish soap.
5. Dip the soapy end of the toothpick into the center of the glitter germs and observe. What happens to the glitter germs?
6. Repeat dipping the toothpick in dish soap and then glitter.
7. Clean up materials.



**Source of Activity:** <https://www.lifewithmoorebabies.com/2018/09/soap-science.html>