



## ACTIVITY #2: WHY DO WE WASH OUR HANDS WITH SOAP?

### What you will need:

- Detergent eg. washing up liquid or hand soap
- Water
- Sequins or glitter (can substitute with cocoa power or pepper)
- Shallow tray or plate



### Instructions:

1. Add water to the shallow tray until it's close to the edge.
2. Sprinkle the sequins over the water surface. This represents the bacteria.
3. Try touching the sequins gently with a finger. Does it stick to your finger?
4. Now cover a finger in detergent and gently try to touch the sequins. What happens to the sequins?
5. Squirt the detergent directly into the water. What does this do to the sequins?





*The sequins should move away when you try to touch them with your detergent covered finger or squirt detergent into the water.*

### **Why we wash our hands with soap:**

- Our hands are covered in oils and grease which protect our skin from drying.
- But bacteria (and other germs) stick to this oil and then if we touch our nose, eyes or mouth, we can put bacteria into places they don't belong.

### *How do we remove the bacteria from our hands?*

- Water doesn't do a very good job of getting rid of bacteria because water and oil don't like each other. But soap likes both water and oil. When you cover your hands with soap and work up bubbles, it binds the oil and bacteria on your hands to the water. Then when you rinse your hands with water, the soap bubbles carry the bacteria away with the water.
- Bonus activity (with built-in cleaning up!):
  - Cover your hands with a small amount of glitter
  - Try wiping your hands with a paper towel. Does this get rid of the glitter?
  - Try washing your hands with water only. Does this get rid of the glitter?
  - Now try washing your hands with water and soap. Does this do a better job of getting rid of the glitter?

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**If you want to know more about bacteria, check these out:**

<https://www.amnh.org/explore/microbe-facts>

<http://www.oum.ox.ac.uk/bacterialworld/>

The Dr Binocs Show on the Peekaboo KidZ YouTube channel

<https://www.youtube.com/watch?v=JZjzQhFG6Ec>