

### **The Magic of Soap: An Experiment Showing Power of Handwashing!**

**Brief Description:** This experiment can easily be carried out from the safety of your home with materials you are nearly guaranteed to have without spending another trip heading to the grocery store. This experiment can be carried out in 5-10 minutes and demonstrates to children of all ages the power they have through washing their hands to keep themselves and others happy and healthy.

**Duration:** Anywhere from 5 minutes to 30 minutes.

#### **Materials**

- Small Bowl
- Cup
- Access to water (tap works!)
- Bottle of soap
- Kitchen Spice (Black pepper, oregano, etc.)

**Procedure** – Video Demonstration posted on Mass Audubon Nantucket Sanctuaries Page for additional instruction (<https://www.facebook.com/massaudubonnantucket/>)

1. Take your small bowl fill it half way with water out of the tap.
  2. Take your kitchen spice and sprinkle the spice until the surface of the water within the bowl is lightly covered, no need to waste spices! This spice is the bowl represents germs.
  3. Using your bottle of soap squirt a drop of soap into your cup, not into the bowl full of water and spice.
  4. Take your finger and insert it into the bowl of water and spice.
  5. Observe and record the results, did the spice stick to your finger? Was it mildly repelled? Did the germs “jump” away from your finger?
  6. Now, wash the “germs” off of your finger.
  7. Now, take your finger and press it into the drop of soap.
  8. After putting your finger in the soap, re-insert it into the bowl full of water and spice.
  9. Observe and record the results, was the response of the germs different than before? How so?
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This experiment can be adapted for a longer portion of time by having a participant demonstrate the importance of washing one’s hands for the entire recommended 20 seconds. Instead of just putting your finger in soap have the participant wash their hands for 5 seconds, rinse, and insert in the “germ” bowl, observe and record results. Repeat handwashing but now for 10 seconds, insert, observe, and record. Repeat with 15 seconds of handwashing and finally 20. The intended result should show 20 seconds of handwashing makes for the best germ jumping results!

#### **Expected Outcomes:**

This experiment is intended to show children, and adults, just how important washing your hands properly can be in containing the spread of germs which is especially important giving the current COVID-19 pandemic. I believe showing children the magic of soap and handwashing during this difficult time will alleviate their fears and reinforce the importance of handwashing moving forward.