

### 2.2 (B) – Mission 2: Handwashing Experiment

Have you ever wondered how microorganisms like bacteria and viruses spread from one person to another? Today, we’re going on a handwashing adventure to learn how we can be superheroes against those sneaky, harmful microorganisms! We will shake hands with other students and touch classroom surfaces to see how harmful microorganisms can spread.



#### Materials Needed

Vegetable oil	Hand soap
Bacterial substance (e.g., pepper, glitter)	Access to a sink
Paper towel	

#### Step 1: Predictions

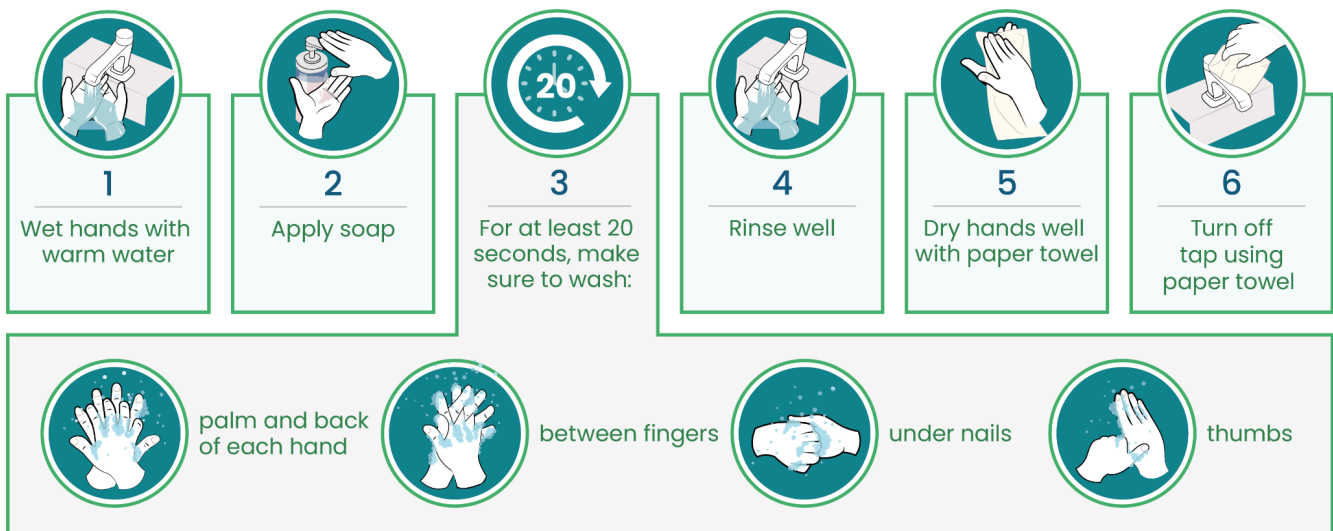
What do you think will happen when you shake hands with other people and touch surfaces in your classroom? Brainstorm with your group, then write or draw your predictions in the space below.

Predictions	
Hint: Will the bacteria stick to hands and surfaces or slide off?	

## Step 2: Handwashing Experiment

### Instructions

1. Write the names of the surfaces you will touch in your classroom (ask your teacher):  
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2. Rub oil on your hands.
3. Sprinkle the bacterial substance on your oily hands.
4. Shake someone's hand and touch different surfaces.
5. Wash your hands using only water.
6. Touch a different surface.
7. Wash your hands using soap and water, following the steps in the graphic below.
8. Touch a different surface.




Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Step 3: Observations

What happened to the bacteria when you touched each other's hands and the classroom surfaces? Discuss with your group members, then write or draw your observations in the space below.

Observations
<p data-bbox="203 520 1266 592">Hint: Did the bacteria stick to one type of material more than another (skin, metal, wood, etc.)?</p> 

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Reflection Questions



1. What happened when you washed your hands using only water?

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2. What happened when you washed your hands using soap and water?

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3. Why do you think it is important to always wash your hands with soap and water, even when they look clean?

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4. Why is it a good idea to use a paper towel to touch the tap **after** you wash your hands? Please explain.

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