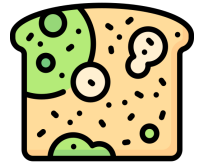


2.2 (C) – Mission 3: Bread Mould Experiment

Have you ever wondered what makes bread turn fuzzy and green? Let's experiment with bread to learn how mould grows best. Grab your detective hats as we dive into the world of science and squishy discoveries!



Each bread slice we test will have a different condition to see how it affects mould growth. As true detectives, we'll observe the bread slices each day for five to ten days to check for signs of mould growth.

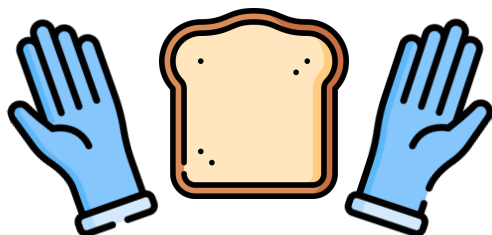
Materials Needed (per group)

5 slices of bread	Access to a sink
5 plastic sandwich bags	Hand soap
1 set of tongs	Marker or 5 sticky labels
1 pair of disposable gloves	Pencil

Step 1: Thinking About the Experiment

As a group, read and think about each bread preparation method below.

Control Bread
<ol style="list-style-type: none"> 1. Wash your hands with warm water and soap using the 20-second rule. 2. Put on a pair of clean, disposable gloves. 3. Take one slice of bread and put it directly into a plastic sandwich bag. 4. Label it as "control bread."



Unwashed Hands

1. Take one slice of bread and touch it several times with your unwashed hands.
2. Place the slice of bread in a plastic sandwich bag.
3. Label it as “unwashed hands.”

Washed Hands

1. Wash your hands with warm water and soap using the 20-second rule.
2. Take one slice of bread and touch it several times with your washed hands.
3. Place the slice of bread in a plastic sandwich bag.
4. Label it as “washed hands.”

5-Second Rule

1. Take one slice of bread and place both sides of it on the floor for 5 seconds.
2. Pick up the slice of bread with clean tongs and place it in a plastic sandwich bag.
3. Label it as “5-second rule.”

Shared Surfaces

1. Use a clean pair of tongs to take a slice of bread and place it on a shared surface in the classroom (countertop, desk, keyboard, etc.).
2. Use the clean tongs to move the slice of bread to another surface. Touch both sides of the bread to the surface.
3. Place it in a plastic sandwich bag.
4. Label it as “shared surfaces.”

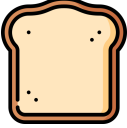




Name: _____

Date: _____

Step 2: Predictions

Record your group's predictions in the chart below. What do you think will happen to each piece of bread over the five to ten days?



Control Bread 	
Unwashed Hands 	
Washed Hands 	
5-Second Rule 	
Shared Surfaces 	

Step 3: Bread Preparation

Prepare the bread slices using the bread preparation methods listed under Step 1. Remember to label the bags for each of your bread slices. Once the bags are ready, seal them tightly and place them all in the same spot, away from direct sunlight.

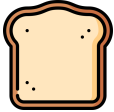




Name: _____

Date: _____

Step 4: Observations



What is happening to the bread? Check on your bread slices every day, looking at both sides. Write any changes you or your group notice in the table below.

	Day 1	Day 2	Day 3	Day 4	Day 5
Control Bread 					
Unwashed Hands 					
Washed Hands 					
5-Second Rule 					
Shared Surfaces 					

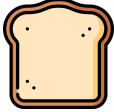




Name: _____

Date: _____

Step 4: Observations (Continued)



What is happening to the bread? Check on your bread slices every day, looking at both sides. Write any changes you or your group notice in the table below.

	Day 6	Day 7	Day 8	Day 9	Day 10
Control Bread 					
Unwashed Hands 					
Washed Hands 					
5-Second Rule 					
Shared Surfaces 					

Name: _____

Date: _____

Reflection Questions



At the end of five to ten days, compare the results of each bread slice under different conditions.

1. Which slice has the least mould? Why do you think this condition produced the least mould?

2. Which slice has the most mould? Why do you think this condition produced the most mould?

3. How do regular cleaning habits help prevent mould growth?

