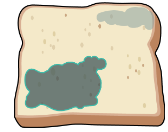
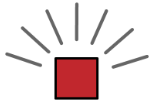


Experiment

THE SPREAD OF GERMS



Introduction



Many people around the world are sick with the coronavirus now. Germs spread the coronavirus from person to person. Germs are very tiny particles that can only be seen with a microscope. People cannot see where germs are or how they move from person to person, but coronavirus germs can spread when sick people cough, talk, sneeze or touch something. The germs can spread when sick people shake hands with healthy people. They can spread when sick people have germs on their hands and touch surfaces and objects. When healthy people touch those same surfaces and objects, the germs can move to the healthy person, making them sick too. That is why it is important for students to learn healthy habits. These habits include washing their hands regularly and well. Promoting healthy habits can help stop the spread of coronavirus germs.

This experiment can help students understand how easily coronavirus germs can spread. Instead of germs, this experiment uses mold spores. Like germs, mold spores are too tiny to see with just our eyes. They can spread when someone touches a surface where mold spores are. Mold spores can be on desks, phones, chairs and more! Also like germs, washing hands well with soap and water can remove mold spores from hands. If they are not washed away, mold spores can grow into mold that we can see.

In this experiment, students can see which surfaces have the most mold spores. Your students can use slices of bread to grow mold from mold spores. They will have one bread slice that is untouched. They will have a bread slice they touched without washing their hands. They will have a bread slice they touched after washing their hands with soap and water and another they touched after using hand sanitizer. The last bread slice, they will rub on a desk. Then each bread slice will go into a labeled zip-top bag. You should label the bags with the cut-out symbols from the Label Page (page 61). Observe the bread slices for about a month and see the differences! You can have your students draw what the bread slices look like after each week if you want to extend the experiment.

The bread slices with the least amount of mold touched the cleanest surfaces. The bread slices with the most mold touched the surfaces with the most mold spores. Remind your students that mold spores are like germs, so surfaces that had the most mold spores probably have the most germs, too.



What We Know:

- The coronavirus spreads from person to person.
- Washing your hands with soap and water can help stop the coronavirus.
- Washing your hands can get rid of germs, dirt and more.
- Washing your hands can get rid of mold spores too.
- Mold spores grow to become mold.



Step 1: Ask a Question

- Which bread will grow the least amount of mold?



Step 2: Make a Guess / Hypothesis

I think...

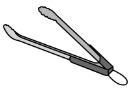


| | | | | |
|-----------------|-----------------|------------------|--------------------------|----------------|
| Not Touched | Dirty Hands | Washed Hands | Hand Sanitizer Hands | From Table |
|-----------------|-----------------|------------------|--------------------------|----------------|



Need

tongs



5 slices white bread



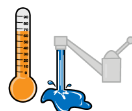
5 zip-top, gallon-sized bags, labeled (See Introduction)



soap



warm water



hand sanitizer



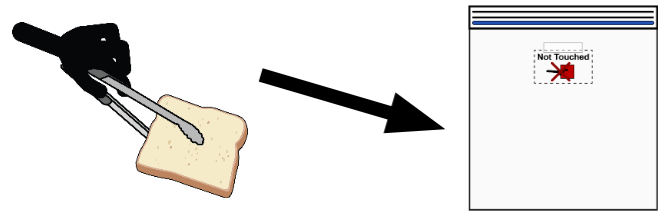
table



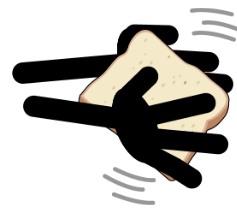


Step 3: Do an Experiment

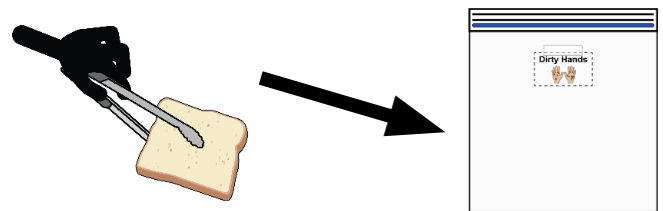
1. Using tongs, carefully put one bread slice into bag labeled Not Touched.



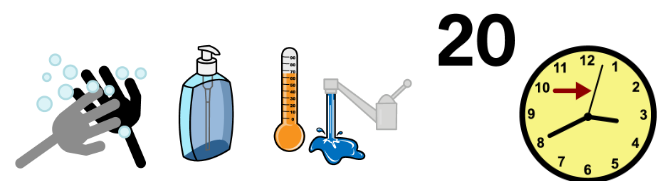
2. Have one student rub hands on second bread slice.



3. Have student put bread slice into bag labeled Dirty Hands.



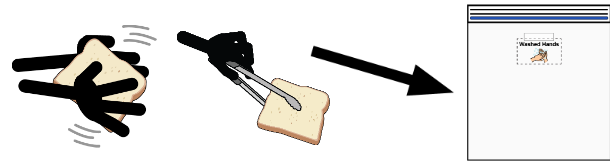
4. Have another student wash hands with soap and warm water for at least 20 seconds.



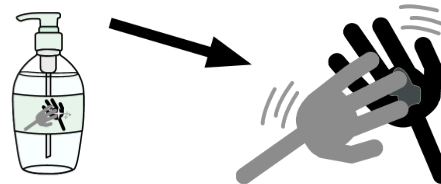


Step 3: Do an Experiment

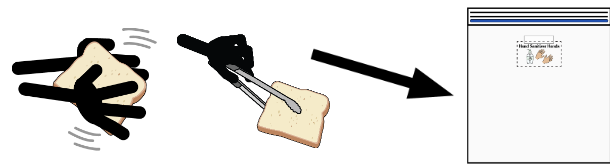
5. Have student rub hands on third bread slice. Put bread slice into bag labeled Washed Hands.



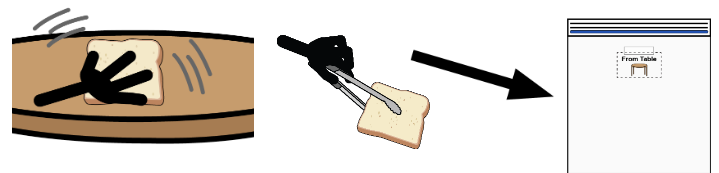
6. Have another student rub hand sanitizer onto hands.



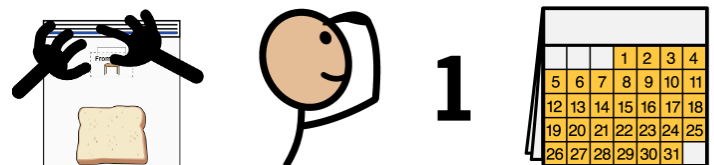
7. Have student rub hands on fourth bread slice. Put bread slice into bag labeled Hand Sanitizer Hands.



8. Rub fifth bread slice on table. Put bread slice into bag labeled From Table.

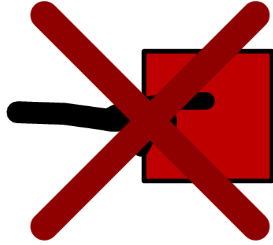


9. Seal each bag. Observe for 1 month.

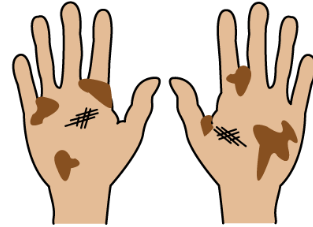


Label Page

Not Touched



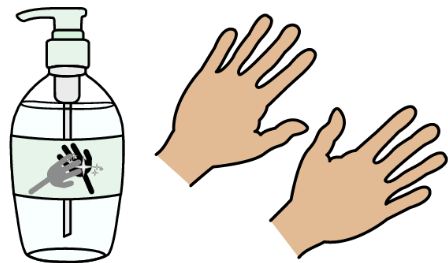
Dirty Hands



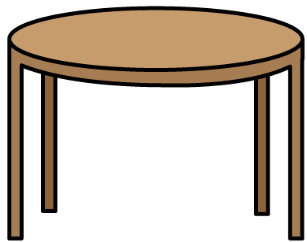
Washed Hands

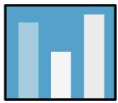


Hand Sanitizer Hands



From Table





Step 4: Organize Data

1. Did each slice of bread look the same at the start of the experiment?



yes



no



2. Did some slices of bread look different by the end of the experiment?



yes



no



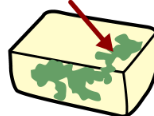
3. What did some bread slices grow?



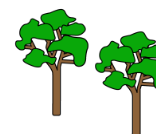
dirt



mold



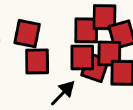
trees





Step 5: Find the Conclusion

1. Did some bread grow more mold than others?



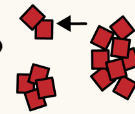
yes



no



2. Which bread grew the least amount of mold?



Not Touched



Dirty Hands



Washed Hands



Hand Sanitizer
Hands



From Table



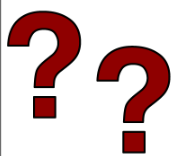
3. Was your guess correct?



yes



no

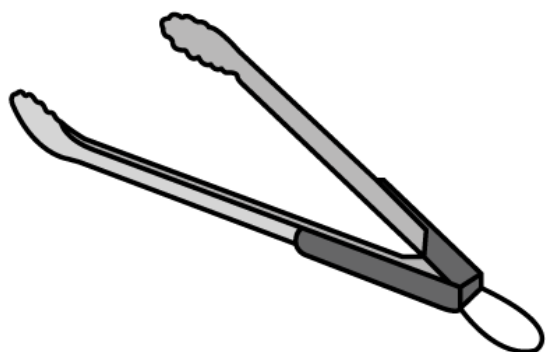


Questions for Class Discussion

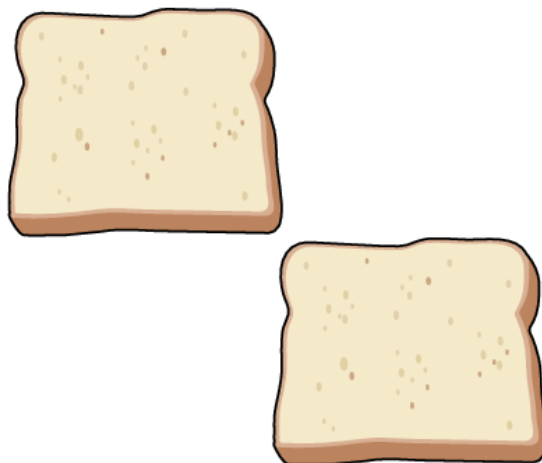
- What other objects do you think would make a bread slice grow mold? Why?
- Why is washing your hands with soap and water important?
- What else can you do to stay healthy?

Read, practice and post these words on classroom or craft area word walls.

tongs



slices white bread



zip-top, gallon-sized
bags, labeled

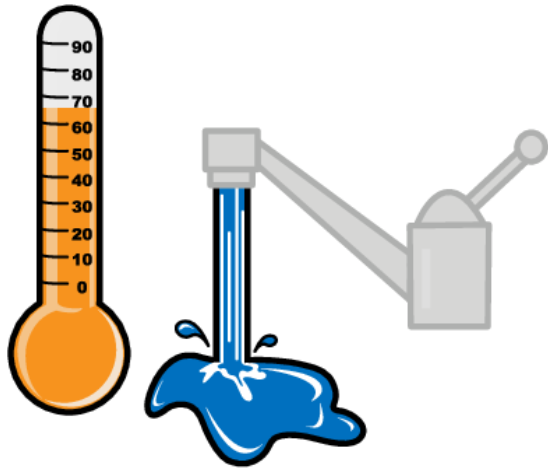


soap



Read, practice and post these words on classroom or craft area word walls.

warm water



hand sanitizer



table

