THE MICROBES ON HAND
ULYSSES PHILOMATHIC LIBRARY SCIENCE AT HOME 2020

THE STEP BY STEP
1 - Cut the potato into 4 quarters, and place one quarter into the "control" ziplock bag as quickly and as carefully as possible.

2 - Rub your hands all over the second potato quarter and place it into the second ziplock bag (labeled "no soap").

3 - Wash your hands with soap or detergent, allow them to air dry, and then rub your hands all over the third potato quarter. Put this one into the "with soap" ziplock bag.

4 - Select a high contact spot in your home (the back of a cell phone, a door knob or fridge handle, a computer mouse) and rub the final quarter on this surface, putting it in the bag labeled "surface."

5 - Keep the four bags in a warm, out of the way, location (a kitchen cabinet perhaps) and check them each day. Within a week to ten days you should see some differences!

ADDITIONAL QUESTIONS
What differences do you see between the four sections? What caused them?

What are the four common types of germs?

What are the differences between bacteria, fungi, viruses, and protozoa?

What do germs do? Why does this activity sometimes make people or plants sick?

How does washing with soap affect germs?

What is a microbiome? How is that different from a microbiota?

ADDITIONAL RESOURCES
Amoeba Sisters: Bacteria
https://www.youtube.com/watch?v=ORB866QSGv8

Introduction to Microbiology
https://www.youtube.com/watch?v=fU0XO1X1tAE

UNESCO: how soap kills covid 19

Live Science: why do we use soap?

What is Microbiology?
https://microbiologysociety.org/why-microbiology-matters/what-is-microbiology.html