ACTIVITY SHEET 1

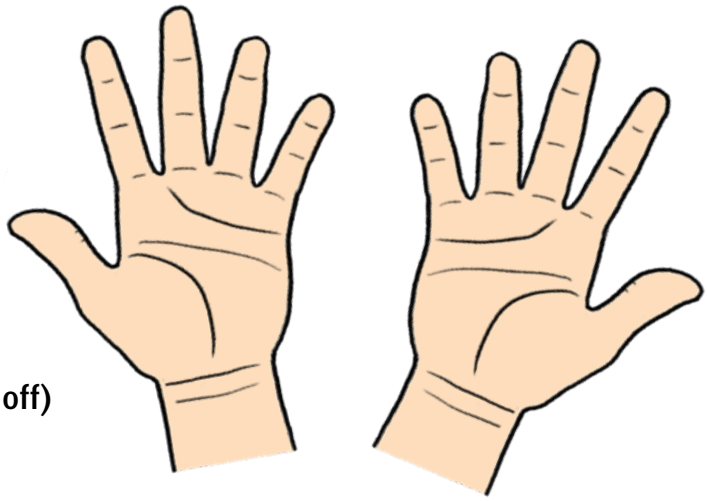
How do germs spread between people?

AGED 9-[illegible] YEARS

Objective

This experiment is not suitable during times of social distancing.

To understand how germs can be spread through cross-contamination. This demonstration stresses the importance of thoroughly washing hands with soap and warm water to prevent the spread of germs.



What you need

- Paint, gel or talcum powder
- 4 students happy to collaborate
- Paper towels
- Sink (to wash off)

Experiment

1. Ask students to stand in a circle
2. Select one student and place some paint, Glo-germ gel or talcum powder onto her/his hands. Explain that this represents germs.
3. Ask her/him to shake hands with another 3 students
4. Then, ask these students to shake hands with another 3 students
5. Continue this process until all hands in the classroom have been touched
6. Lead a discussion about how germs can spread from one person to another

How many people ended up with 'germs'? How can we reduce the spread of germs?

Why is it important to wash our hands after touching key Hygiene Hotspots?

When are the key times when we need to wash our hands?

ACTIVITY SHEET 2

How far can a sneeze travel?

Objective

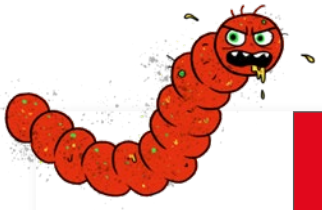
To show how far sneezes can travel and encourage students to prevent contamination from sneezing

What you need

- Floor marked out in 1m intervals
- 10 smiley face print outs
- Water spray bottle
- Piece of tissue
- Tape measure
- Food colouring or poster paint (optional)
- Paper to mark start
- Paper towels
- Masking tape

Experiment

1. Create a 4metre floor grid by marking out 1metre intervals with masking tape
2. Place the smiley faces on the floor at intervals
3. Fill up the spray bottle (you could add a little food colouring or poster paint) and stand at the start point of the sneeze zone
4. 'Sneeze' by using the spray bottle and measure how far the drops go. Repeat 5 times.
5. Hold a tissue in front of the spray bottle. 'Sneeze' again by using the spray bottle and measure how far the drops go. Repeat 5 times.



		SNEEZE 1	SNEEZE 2	SNEEZE 3	SNEEZE 4	SNEEZE 5
SNEEZE	Distance covered					
	Number of people affected					
SNEEZE WITH TISSUE	Distance covered					
	Number of people affected					

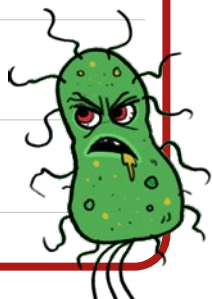
ACTIVITY SHEET 2 Cont'd

What was the highest number of people affected by one sneeze?

What happens when you put a tissue over your mouth when you sneeze?

What do you do with a tissue once it's used? Why?

Why is it better to use a tissue or elbow ("doing a vampire") when sneezing, not your hand?



ACTIVITY SHEET 3

Wow! Soap ‘n’ Pepper

Objective

Understand why we need soap and water when washing hands. Our skin naturally has oil on it. Germs stick to this oil and hide in it. Soap takes away oil and dirt, pushing the germs away. Without soap, the oils are not removed, and germs find it easier to stick. Remember, not all microbes are harmful – some help us!

What you need

- Bowl
- Some water
- Sprinkle of black pepper or other spice
- Hand soap
- Towel
- Pen
- Notebook
- Camera (optional)

Experiment

1. Fill the bowl with water, but not to the top. The water represents your skin.
2. Sprinkle some black pepper or spice onto the surface of the water. It should float on top. The pepper represents germs.
3. Dip your finger into the centre of the water and watch what happens to the pepper. Take a photo to record what has happened.
4. Dry your finger, and then dip it into the soap, so it covers your finger.
5. Dip your soapy finger into the water. Watch what happens to the pepper. Take a photo to record what has happened.

What happened without soap and with soap?

Why do we use soap to wash our hands?

When are the most important times to wash our hands?

ACTIVITY SHEET 4

Wow! Bursting viruses with soap!

Objective

Understand how soap can destroy viruses. Explanation: soap is made of little molecules. Each molecule is like a pin. One end loves water and the other end loves fat. Some viruses (and bacteria) have an envelope of fat around them. See what can happen when a soap molecule comes into contact with a virus. Soap bursts the fatty envelope and destroys the virus. So, we need to wash our hands with soap and water to keep safe from viruses..

What you need

- Balloon with some glitter inside
- Pin (this is your soap)
- Soap dish
- Newspaper layered on floor

Experiment

1. Put some glitter (or confetti) inside a balloon and inflate it. This represents a virus.
2. Ask the class how they might stop this virus from spreading
3. Draw attention to the pin (representing a soap molecule) and show how, when the pin comes into contact with the virus envelope, it is destroyed
4. Collect observations from students and discuss what you've seen

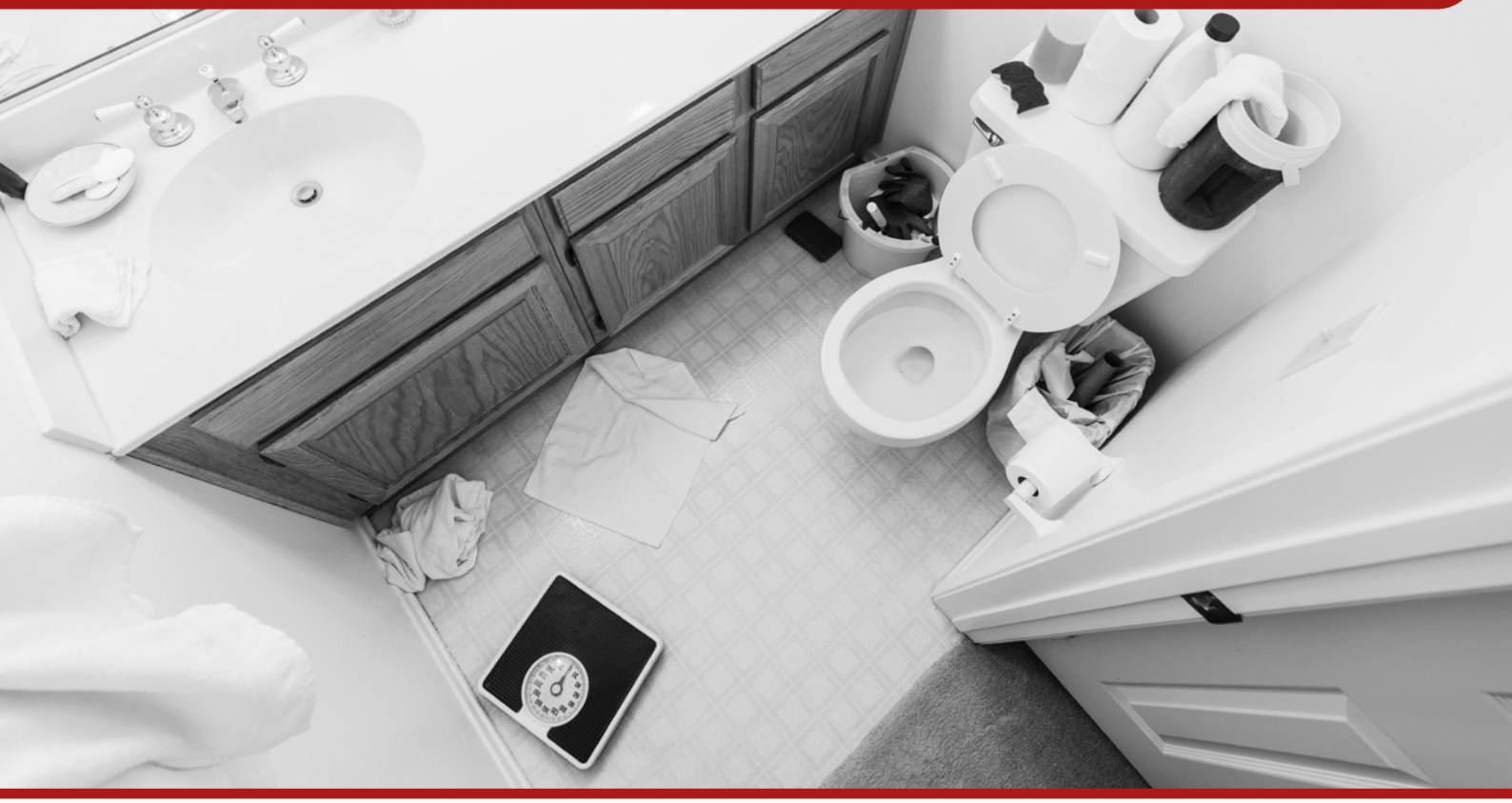
What happened when soap touched the virus? Why?

How do we make sure the burst virus doesn't lie around?

Which parts of our hands do some people forget to wash?

ACTIVITY SHEET 5

Where do most germs hide... in a home?



Use a coloured pen to mark the areas where most germs can be found

ACTIVITY SHEET 6

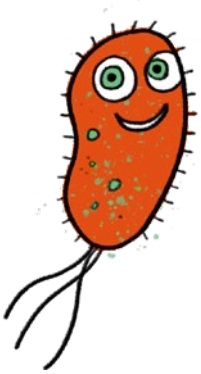
Where do most germs hide ... in the kitchen?

Objective

To understand where microbes hide in the kitchen.
Remember: not all microbes are harmful. Most of the microbes you will find are completely harmless to us.
Let's be microbe detectives!

What you need

- 4 slices of bread
- 4 small sealable clear plastic bags
- Sprinkle of water
- Camera (optional)
- Magnifying glass
- Marker pen
- Notebook



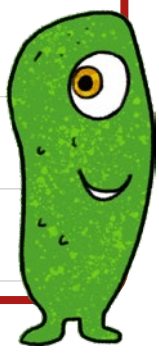
Experiment

1. Put 1 slice of fresh bread into a plastic bag. Seal the bag and label as "control and clean"
2. Add a tiny sprinkling of water to the other 3 bread slices. Don't soak them
3. Take 1 slice and carefully rub it across your kitchen floor. Try not to break up the bread. Put it into a bag, seal it and label the bag "floor"
4. Repeat step 3 but for different kitchen surfaces, e.g. a shelf in the fridge or the kitchen sink. Each time, seal the bag and label with the surface name
5. Place all the bags in a cupboard, and leave them for at least 1 week. Take notes and photos of any changes you see to the bread every day. Never open the bags. **At the end of the experiment, put the unopened bags in the bin.**

What happened to the bread?

Which slice had the most microbes?

What does this tell us?



ACTIVITY SHEET 7

Where do most germs hide... on hands?

Objective

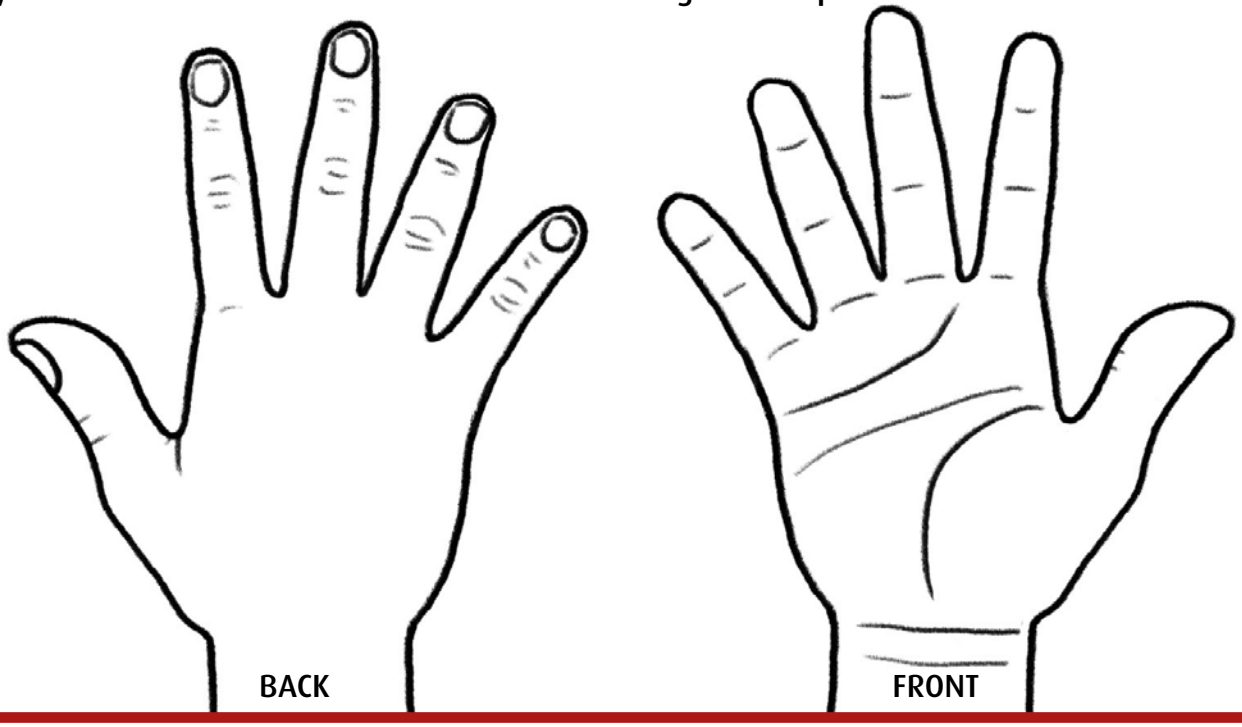
To remind ourselves where germs are most likely to hide on our hands so that we pay extra attention when washing.

What you need

- Scissors
- Glue
- White paper
- Coloured pencils
- Coloured paper
- Crayons or markers
- Cardboard (optional)

Experiment

1. Using the white paper, carefully trace left and right hands with pens
2. Then, cut out your traced artwork and glue them on coloured paper or cardboard
3. Using the image in the stimulus presentation, identify commonly missed areas when handwashing and discuss the importance of thorough handwashing
4. Use coloured pencils and pens to draw and label areas easily missed on hands
5. Display artwork around the classroom as a reminder of germ hotspots



Where in the classroom or school is best to remind about the need for handwashing?