

Care and COVID Tech Considerations

Tablet:

- Pros:
 - High engagement
 - High versatility – can take different types of photos (e.g., panoramic, portrait) and videos (e.g., slow motion)
 - Can hold many photos
 - Can add applications for editing photos (e.g., Lightroom, Photoshop)
 - Can add applications for sharing photos (e.g., Google Drive, Dropbox)
 - Compatible with most macro lenses (see Segment 3)
- Cons:
 - Price (wide range considering quality and brand)
 - Fragile (adding cases creates additional expense)
 - Storing may be more difficult
 - Youth may have challenges in sharing tablets with one another (if one per youth not an option)
 - *Could supplement with other type of camera (½ tablets, ½ alternative)*
 - Can be distracting – may need to monitor youth for using tablets for other purposes (e.g., games, social media)
 - May require wifi – large number of tablets transferring photos can be difficult on bandwidth
- Printing:
 - Can connect wirelessly or directly to most modern printers
 - May require on-the-stop troubleshooting
 - May require high quality wifi
 - Relatively easy to send in for printing (i.e., 1-hour photo) because files are already electronic
- Sharing:
 - Electronic photos can be projected onto screen
 - Photos can be printed for sharing
 - Sharing can occur directly from the tablet itself
 - May require high quality wifi

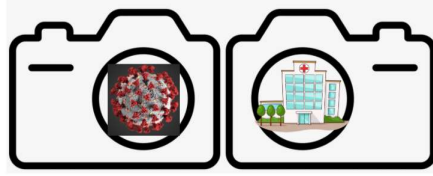
Digital Camera:

- Pros:
 - Less expensive than tablets
 - Potentially more durable than tablets
 - Cases (or additional protective hardware) not usually required
 - Can take a few different types of photos (e.g., zoom in and out, video)
 - Maybe less distracting than tablets
 - Less need to monitor or limit functionality
 - Can hold many photos

- Does not require wifi
- Cons:
 - May be less engaging – although [the old digital camera is coming back into style](#)
 - Need to connect to a computer to upload photos
 - Less versatility with types of photos and videos
- Printing:
 - May need to upload photos to computer or printer manually before printing
 - A little more difficult to send in (i.e., 1-hour photo) because of need to upload photos off camera
- Sharing:
 - Extra step to upload photos in order to project them on big screen
 - Photos can be printed for sharing
 - Sharing may not be easy to share directly from the camera itself

Polaroid Camera (or similar):

- Pros:
 - Nostalgic for the adults
 - Novel to youth
 - Relatively affordable (compared to tablets)
 - May be less distracting than tablets
 - Less need to monitor or limit functionality
 - Do not have to purchase or manage printers
 - Does not require wifi
 - No need to upload anything – it's an all-in-one (although a limited all-in-one)
- Cons:
 - Less versatile than any other option – only takes photos
 - Limited number of photos taken (youth will not be able to take pictures endlessly)
 - Photo paper is expensive
 - Photos are relatively small
 - Cannot have electronic version of photos for later uses (e.g., reprinting for art show) – need to save physical copies
- Printing:
 - Printing is all taken care of
- Sharing:
 - Youth share printed photos physically rather than electronically



Segment Two Facilitation Guide

Care and Self

Overview

In this segment, we begin to explore the ways in which an individual can protect themselves from getting sick from the COVID pathogen, beginning with what a pathogen is and how it invades our body to make us sick. Learners will explore where pathogens live in our daily routines and environments and healthy habits to follow throughout the day using close-up photography. Learners will also engage in theatrics and photography as they create and perform skits – pausing to take tableaus depicting stories of protection from COVID. Visual thinking strategies will be used in photovoice discussions of learners’ tableaus.

Big Questions and Ideas

- What is a pathogen?
- How can we help our body protect us from pathogens?
- How can we use a photograph to tell a story?
- How can we use photography vocabulary and techniques to discuss the stories in photographs?

Grade Level

3rd - 5th grade (approx. ages 8 - 11)

Objectives and Assessment (Science and Art)

Objective	Assessment
<i>Learners understand how a pathogen invades a body to make us sick.</i>	<i>Skits made by learners representative of an “invasion” or “attack” with something “precious” that gets hurt.</i>
<i>Learners understand where pathogens live in our daily lives.</i>	<i>Photos taken by learners represent contagion surfaces and situations.</i>
<i>Learners understand ways to protect themselves from pathogen infection.</i>	<i>Skits made by learners representative of an “invasion” or “attack” and a “defense.”</i>
<i>Learners understand ways to protect themselves from pathogen infection.</i>	<i>Learners are able to select photos representing “defenses” against pathogens.</i>
<i>Learners can use a photograph to tell a story.</i>	<i>1. Photos by learners of skits representative of the body fighting off</i>

	<i>a pathogen invasion.</i>
	<i>2. Learners can tell story of pathogen invasion and the body's defense using a photograph representative of their story</i>
<i>Learners can discuss and communicate with peers what they see in photographs as related to pathogen infections and defenses.</i>	<i>Learners use photography and science vocabulary in group discussions, including "perspective", "angle", "point of view", "scale", "size", "framing", "action", "pathogen", "virus", "infection", "defense", "protection."</i>

National Core Arts Standards

Anchor Standard #1: Generate and conceptualize artistic ideas and work.

Anchor Standard #2: Organize and develop artistic ideas and work.

Anchor Standard #4: Analyze, interpret, and select artistic work for presentation.

Anchor Standard #5: Develop and refine artistic work for presentation.

Anchor Standard #6: Convey meaning through the interpretation of artistic work.

Anchor Standard #7: Perceive and analyze artistic work.

Anchor Standard #8: Interpret intent and meaning in artistic work.

Anchor Standard #10: Synthesize and relate knowledge and personal experiences to make art.

Anchor Standard #11: Relate artistic ideas and works with societal, cultural and historical context to deepen understanding.

Next Generation Science Standards

Disciplinary Core Ideas

- ESS3.B Natural Hazards: A variety of natural hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts.
- LS1.A Structure and Function: Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.
- PS1.A Structure and Properties of Matter: Matter of any type can be subdivided into particles that are too small to see, but even then the matter can be detected by other means.

Science and Engineering Practices

- Asking Questions and Defining Problems
- Developing and Using Models
- Constructing Explanations and Designing Solutions
- Obtaining, Evaluating, and Communicating Information

Crosscutting Concepts

- Cause and Effect: Cause and effect relationships are routinely identified.

- Systems and Systems Models: A system can be described in terms of its components and their interactions.
- Scale, Proportion, and Quantity: Natural objects exist from the very small to the immensely large.

Time

2 hours

Materials

- Projector, screen, and computer to display slide decks and photos (alternatively use printed copies)
- Slide deck:
 - Segment 2 [Part A and B slide deck](#)
- Space for gathering and sharing photos taken by learners
- Cameras
- Macro lenses (if using phones or tablets for cameras, one per camera)
- Community Agreement poster about using/sharing cameras
- Community Agreement poster for discussing each other's photos
- Assorted items to represent things that could make you sick/carry pathogens, such as:
 - Pencils
 - Coins
 - Sponges
 - Water bottles
 - Eating utensils
- Assorted items that represent things that could protect you from getting sick/protect you from pathogens, such as:
 - Masks
 - Hand sanitizer
 - Fruits and vegetables
 - Soap
 - Gloves
 - Vitamins
- Assorted skit props (we have found it helpful to have a prop box with a variety of items for learners to utilize). Fun props could include:
 - Dress up clothes (coats, gloves, hats, bodysuits, dresses, etc.)
 - Masks
 - Hand sanitizer
 - Sponges
 - Jewelry
 - Stickers
- Poster paper titled "Care and Self"
- Pencils
- Post-it notes for learner responses to Big Picture activity (see Facilitation Guide Part B)

- Optional: Materials for makeshift stage (e.g., black sheet to hang as backdrop, chairs for audience)

Background Information for Facilitators

Art Background Information

- **Visual Thinking Strategies:** is an inquiry-based teaching method that improves a learner's ability to describe, analyze, and interpret imagery and information through observing and discussing visual art. It has been proven that using the following phrases get the best results from learners/observers. Learn more at www.vtshome.org.
 - "Take a moment to look at this photograph"
 - (Q1) What's going on in this picture?
 - (Q2) What do you see that makes you say that?
 - (Q3) What more can we find?
 - (Q4) What could be going on beyond the frame of this photo?
- **Theatrics and Tableau:**
 - When performing a skit, a tableau is a "freeze" during the performance. It is a static scene containing one or more actors or models. Actors use their bodies to create dynamic "snapshots," such as "high, medium, low" placements, or "big, medium, small" shapes.
- **Photography concepts:**
 - Composition - how the elements (objects, subjects, background, foreground, colors, textures, etc) of a photo are arranged.
 - Framing - drawing focus to the subject of a photo by using other parts of the image.
 - Rule of thirds - places your subject in the left or right third of an image, leaving the other two thirds more open.



- Perspective - the place from which the subject of the photo is being seen.
 - Close up: close to subject
 - Long shot: far from subject
 - Side view: side view of subject
 - Birds eye view: from high above subject

- Worms eye view: from far below subject

Science Background Information

There are things that are too small to see that can make you sick (pathogens). Pathogens include things like bacteria, parasites, and viruses. COVID is one of these; it is a virus. COVID spreads through water droplets (mucus, saliva) from a sick person from when they sneeze, cough, or touch their nose or eyes. If someone else accidentally inhales or swallows those water droplets they can also become sick with COVID. There are actions individuals can take to protect themselves from COVID. This includes wearing a mask, washing your hands, not touching your eyes/mouth/nose in public, social distancing, staying home if you feel sick, and getting vaccinated. The following list explains more on how to prevent infection:

- **Wear a mask:** COVID is commonly spread from sneezing and coughing. Masks protect sneeze water droplets from sneezes/coughs from going in or out.
- **Wash your hands:** soap and water will remove pathogens from your hands. Wash your hands with soap and water for at least 20 seconds before eating/touching your face. Hand sanitizer is a good substitute if you do not have access to soap and water.
- **Don't touch your eyes/mouth/nose in public:** if you touch a surface that has COVID on it and then touch your face, you can accidentally ingest or inhale COVID. Only touch your face when you know your hands are clean!
- **Social distancing and airflow:** when you sneeze or cough, the water droplets escape your mouth and fly into the air. Keeping distance between yourself and other people can reduce your likelihood of spreading or coming into contact with these droplets. Being in spaces that have good airflow, including outside, can also reduce this risk!
- **Stay home if you feel sick:** if you feel sick (fever, sneezing/coughing, etc.) try to stay home. Resting will help your body heal faster and being physically separated from uninfected people will help prevent others from getting sick.
- **Get enough exercise and rest:** your *immune system* is how your body fights off infection. Exercising regularly and making sure your body gets enough rest can help keep your immune system strong and healthy so it is in the best possible shape to defend your body.
- **Get vaccinated:** vaccines help your body fight off infection by training your body's immune system to recognize the pathogen. Vaccinated individuals are usually sick for less time and have lower risk of severe infection. *If you are able to get vaccinated, make sure you do!* Some people are not able to get vaccinated (including people with compromised immune systems and young babies). More vaccinated people means more COVID control and prevention!

Preparation

- Make sure all cameras are charged and ready for use.
- Set up a computer and projector to display slide decks and photos. (Alternatively have these printed out).
- Decide how to project or share photos for discussion – physically or electronically?

- Decide how to gather and share learner's photos – Options include online cloud storage (i.e., creating file folders for each student), printing physical copies, or passing around tablets/cameras.
 - Part A and B of this segment both have learners share and discuss their photographs with one another. How this is organized and facilitated is largely dependent on the facilitator's preferences and the learning environment. Learners' photos can be projected to a screen, printed and passed around, posted around the room and presented as a gallery, or shared directly on tablets etc.
- Part A Preparation:
 - Equip each camera with a macro lens (if using).
 - Lay out assorted items for close up photography on tables or counters for learners to access to take photos.
- Part B Preparation:
 - Lay out props on a table for learners to easily access.
 - Optional: set up a stage for skits.
 - Hang poster titled "Care and Self" at the front of the room.

Facilitation Guide

Part A (approximately 1 hour): *What is a pathogen and how does an individual get a pathogen? Your body has natural ways to fight pathogens (immune system), but there are also actions you can take to help your body fight off pathogens.*

- Introduce Big Picture Framing using the [slide deck](#) (10 minutes)
 - Explain that throughout Care and COVID we are going to explore how we can protect ourselves, our community, and the world from COVID.
 - Show learners the first slide in the slide deck that has three concentric rectangles.
 - Explain that our goal for today is to better understand how we can protect ourselves from pathogens.
 - On other days, we are going to explore how we can protect our community and the world from pathogens.
 - Point out to learners that as we move through the activities, we will be expanding the scale of protection.
 - Use the [slide deck](#) to introduce the concept of a pathogen and have learners brainstorm ways they think they can protect themselves from these pathogens.
- Arts-based science activity part 1 (10 minutes): Pathogens are too small to see, but they can make you sick.
 - Close Up Photographic Tasks: Take pairs of photos - one that frames the item in its place in the world, and one close up (with a macro lens, if using). Take several pairs of photos of people, places and things that can make you sick, or where the pathogens may live.
- Art-based science activity part 2 (10 minutes): Washing hands, diet, exercise, rest are ways to help your body fight pathogens.

- Close Up Photographic Tasks: Take pairs of photos - one that frames the item in its place in the world, and one close up (with a macro lens, if using). Take close-up photos of things that can help protect you from pathogens.
- Choose photo to share (5 minutes)
 - Depending on the facilitators choice and the group size, have one, a few, or all learners choose a photo that they would like to share and discuss. Discussions can occur as a whole group with one photo projected for all to see, in small groups, or as a gallery walk.
- Share and discuss photos (15 minutes) using the structure introduced in the bullet above.
 - “Take a moment to look at this photograph”
 - (Q1) What’s going on in this picture?
 - (Q2) What do you see that makes you say that?
 - (Q3) What more can we find?
 - (Q4) What do you think is happening “beyond the frame”?

Part B (approximately 1 hour): *What is a pathogen and how does an individual get a pathogen? Your body has natural ways to fight pathogens (immune system), but there are also actions you can take to help your body fight off pathogens.*

- Arts-based science activity part 1: Pathogens are too small to see, but they can make you sick (10 minutes)
 - Embodied/theatrical representation of pathogens invading body
 - Tell learners that we are going to pretend that they have something really precious, something that is really valuable to them that they want to protect.
 - Have learners stand up and act out what it would look like if they had something really precious that they wanted to protect.
 - Tell learners that we are going to pretend that there is something that is trying to attack you and hurt your precious item.
 - Have learners act out what something attacking their precious item may look like.
 - Explain to learners that the precious item that each of them has is their own body and that pathogens are things that are too small to see but try to invade your body and make you sick.
 - Explain to learners that these pathogens (invaders) that are too small to see can be found almost anywhere and can be passed from one person to another in different ways.
- Art-based science activity part 2: Washing hands, diet, exercise, rest as ways to help your body fight pathogens (15 minutes total)
 - Embodied/theatrical representation of protectors stopping pathogens from invading your body (e.g., washing hands -- washing away invaders, rest -- getting strong to fight off invaders).
 - Bring learners back together in a whole group.

- Tell learners that we are now going to pretend that we have ways to protect ourselves from invaders making our “precious” sick.
 - Have learners stand up and act out what it would look like if we were to kill and wash away invaders that are trying to invade our precious.
 - Have learners also stand up and act out what it would look like if we were to rest up to get strong and fight off invaders.
- Explain that today we are going to be taking a type of photo called a “tableau.” Use the [slide deck](#) to show some examples of tableaux. Explain that a tableau is a still scene, featuring actors posing for a shot. We can think about a tableau as a freeze photo from a skit.
- Explain that a skit is a very short play (2-5 minutes) that tells a story.
- Break into small groups of three to four learners and create a short skit about something trying to invade your precious. Learners can either kill and wash away the invaders or rest up to protect your precious (at least 10 minutes, if not more if time is available).
 - Each skit needs to have (1) a “precious”, (2) an invader, and (3) a way of protecting the precious from being invaded.
 - Encourage learners to use props to help tell the stories in their skits.
- Have groups act out their skit in front of the whole group (10 minutes).
 - During this time, other groups take photos of the “freeze shot” from different vantage points around the actors. Note: It may be helpful for the facilitator to call out “freeze” during the performances so the audience can take the tableaux.
 - Note: It may be helpful to remind learners that they are not taking video footage of the skits, but they are taking photos.
- Photo discussion using visual thinking: Review tableaux taken of the skits. (15 minutes total)
 - Groups review photos they took and choose one to share with class. Sharing and discussing can occur as a whole group with one photo projected for all to see, in small groups, or as a gallery walk.
 - Use Community Agreements, VTS and framing, perspective and composition to talk about photos.
 - “Take a moment to look at this photograph”
 - (Q1) What’s going on in this picture?
 - (Q2) What do you see that makes you say that?
 - (Q3) What more can we find?
 - (Q4) What do you think is happening “beyond the frame”?
 - If more conversation is needed, or the following ideas are not brought up, feel free to direct learners:
 - What’s going on in this photo? What stands out from this image?
 - Who/what is the main focus of the image?
 - What makes you say that?

- What do you think happens next (after the photo was taken)?
 - What story do you think this photo is telling?
- Big Picture Activity: How can we protect ourselves from pathogens? (5 minutes)
 - Give each learner three post-it notes and a pencil.
 - Have each learner think about three ways that they think individuals can protect themselves from pathogens.
 - Have learners write one on each post-it note and then place their post-it notes on a poster titled “Care and Self” in the front of the group.
 - Engage learners in a group discussion about the different ideas presented.

Tips for Group Participation

- Photo sharing and discussion can be facilitated in many different ways depending on your learners and learning environment. Discussions can occur as a whole group with one photo projected for all to see, in small groups, or as a gallery walk with learners walking around the room where some/all of the photos are on display.
 - For small groups and gallery walks, consider posting the VTS questions in written form in the classroom to remind learners of the discussion prompts.
 - For small groups, you could ask small groups to work together to create a poster (using words and/or drawings) that shares some responses to the VTS questions.
 - Gallery walks can be especially helpful if you have a large number of learners and/or your learners need to “get some wiggles out.” You can make a gallery walk “interactive” by giving learners small post-it notes and pens/pencils where they can write and post by each displayed photo short responses to one or more of the VTS strategies.
 - If you are working with a large group of learners, you may need to select a subset of learners to share their photos. If this is the case, pay attention to making sure that, over the course of the curriculum, all learners eventually have an opportunity to share.
- During Part B, learners may require additional facilitation to develop their stories. Plan on circulating across the small groups during this time in case more support is required. You can prompt learners back to the key features of the skit: (1) a “precious”, (2) an invader, and (3) a way of protecting the precious from being invaded. At the same time, make plenty of room for learners’ imagination and creativity!

Extended Science Background

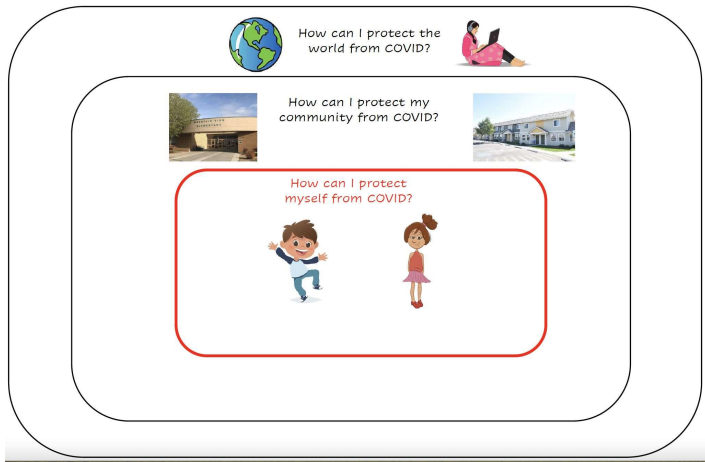
MMR: three cheers for vaccines!

Measles virus, and the similar Mumps and Rubella viruses, are pathogens that have slightly different symptoms than COVID. Like COVID, these are respiratory viruses that spread from water droplets coughed or sneezed by an infected person. The measles virus particles are able to stay suspended in the air for up to two hours after an infected person has left an area! This makes these viruses HIGHLY contagious. Because of this long air-time, uninfected people can unknowingly enter a space where an infected person once was (for example, a doctor's office waiting room) and inhale the pathogen. The good news is that there is a powerful vaccine,

the MMR vaccine, that is recommended especially for young children to prevent measles infection. Most people get this vaccine when we are babies! This extensive, long-term vaccination protocol has greatly reduced the occurrence of measles in the United States, almost eliminating it entirely!

Bless you!

Two other very common respiratory viruses are Influenza ("the flu") and rhinoviruses ("the common cold"). There are several different versions, or "strains", of these viruses that infect people all throughout the year. They are spread in the same way that COVID is. Most people become sick with these viruses multiple times per year - usually during the fall and winter. Common symptoms include runny nose, sore throat, cough, body aches, sneezing, and fever. There is no vaccine for the common cold, and the flu changes so much every year that new vaccines are created constantly. Make sure you get the new flu vaccine every year! The best way to prevent becoming infected with these viruses is by using the protective behaviors we have learned about from COVID - these behaviors work for many different pathogens!



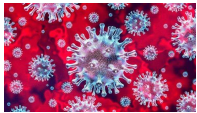
pathogen

patógeno/patógena

something that is too small to see that can invade your body and make you sick

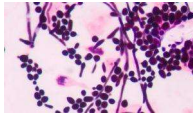
types of pathogens

viruses



coronavirus

fungi



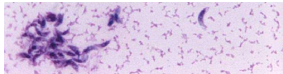
candida

bacteria



e. coli

protozoa

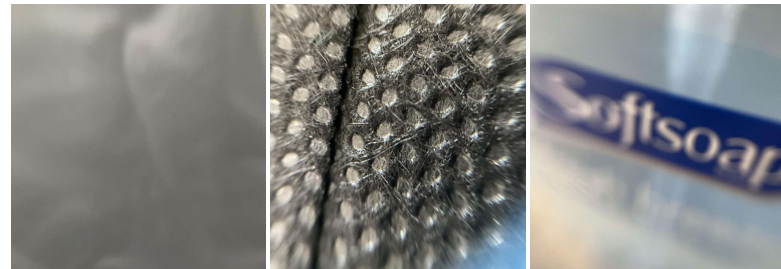


toxoplasma

worms



tapeworm



how can we protect ourselves from pathogens?



tableau: a freeze photo from a skit

skit: a short play that tells a story

2-5 minutes!
uses props!
can be silly!

tells a story about protecting yourself from pathogens invading your body!





How can I protect the world from COVID?



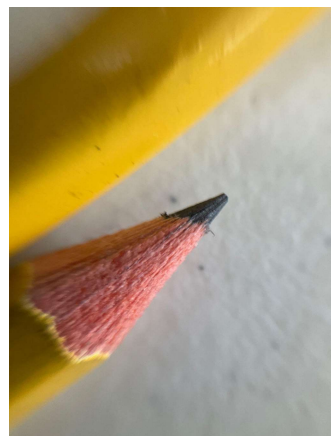
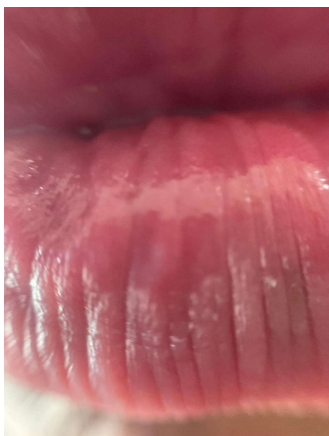
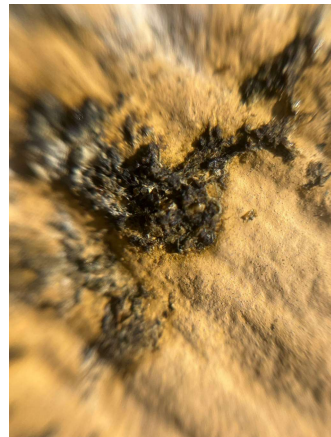
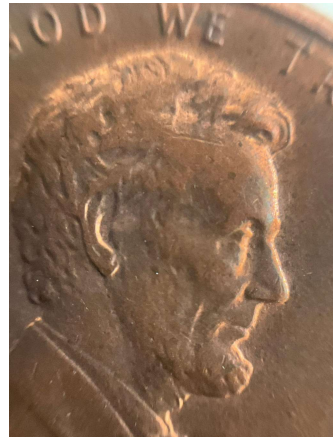
How can I protect my community from COVID?



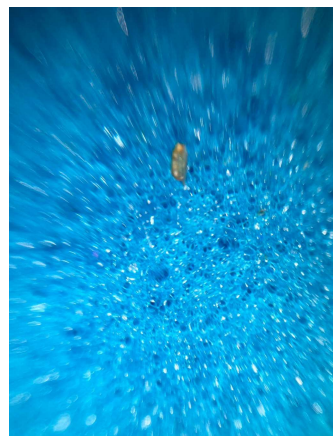
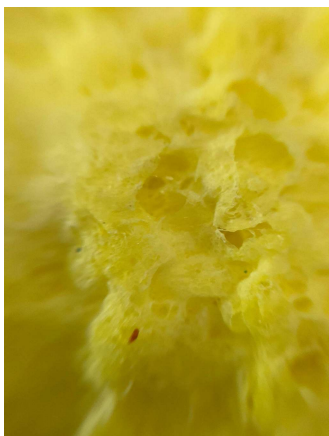
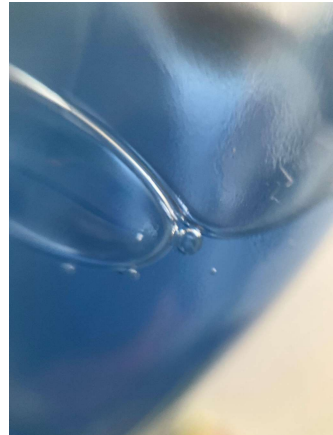
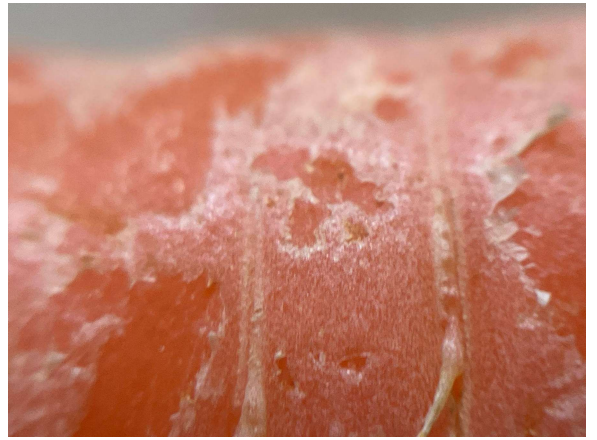
How can I protect myself from COVID?

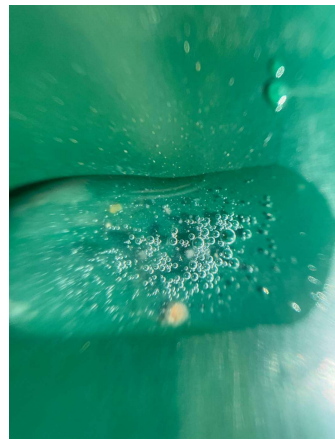


close ups: make you sick



close ups: protect you from pathogens





tableaus



One last step!

Please answer a few questions about how this segment went. This helps us learn from you about how to improve the activities.

Scan this QR code and fill out this quick survey.

