Learning About COVID-19

Activity Guide

ages 5–9

Alaska Afterschool Network
Program of Alaska Children's Trust

NORTH CAROLINA NCCAP
CENTER for AFTERSCHOOL PROGRAMS
Public School Forum of North Carolina

50 STATE AFTERSCHOOL NETWORK

Learning About COVID-19, Ages 5-9

COVID-19, coronavirus, has impacted students and families throughout the world and has significantly altered our education systems, including out-of-school time programs. The activities and resources in the Learning About COVID-19 Activity Guides were intentionally designed to support youth-serving programs in engaging students in learning about the science of COVID-19 and developing greater social awareness and empathy. The guide includes 40 activities and challenges organized by four different age groups (5-9) (10-12) (13-15) (16-18). The activities were developed for in-person and virtual instruction, or a hybrid of both, as well as sent as take-home packets. All activities should be safely executed and aligned with state and local health guidelines.

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Build a Virus

ACTIVITY DESCRIPTION

In this arts and STEM activity, youth will build a model of a virus. This activity is designed to introduce youth to different parts of a virus and how it functions. This activity encourages the development of STEM literacy, inquiry and critical thinking skills.

SUPPLIES

- Playdough (Note: To make playdough all you need is 1 cup of flour, ½ cup salt and 1/3 cup of water)
- Cotton swabs or toothpicks
- Scissors

STEPS

Viruses are very small, and when they get inside your body, they can make you sick. COVID-19 is a virus, so is the flu, measles and the common cold. If you've ever been sick, chances are you've had a virus. In this activity, you will learn more about what a virus is and what it does, and then you will build your own virus.

1. Watch this video about Sick Simon and how he catches a virus at school and passes it to others: https://www.youtube.com/watch?v=LIWXpiy8wwo
2. Let's build our own virus. Start by making the playdough (if you don't have any available):
   - In a large mixing bowl, add 1 cup of flour and ½ cup of salt
   - Slowly add 1/3 cup of water to the mixture.
   - Mix the ingredients together with your hands. (Note: If it's too dry, add water. If it's too wet, add flour.)
   - Optional: add food coloring to your dough.
3. Make the body of the virus using the playdough. Form the dough into a round shape using your hands.
4. Use scissors to cut the cotton swabs in half. Stick cut end of the cotton swabs into the virus body. The cotton swabs are the virus spikes that help attach the virus to our bodies.
5. Discuss with a friend or family member how your virus could get inside the body, how it could make someone sick, and what is the best way to get rid of it.

ADAPTATIONS

- If you are delivering the activity virtually, encourage youth to post a picture of their virus model and post it to your organization's platform.
- If you are delivering this activity in-person, put youth in pairs and ask them to create the virus together and discuss the symptoms of the virus and how it is transmitted.

EXTENSIONS

- Take a closer look at viruses using BioInteractive's Virus Explorer (https://bit.ly/2EMfZQj). Select "launch interactive" to look at 3-D models and the inside of viruses.
- Create a story or comic strip about your virus. Tell the story of how the virus makes someone sick and what that person does to feel better.
- Watch this video to learn more about the coronavirus: https://bit.ly/2QW3BjA

QUESTIONS FOR DISCUSSION

- If viruses are so small, how can we see them?
- What are the ways you can stop viruses from getting into your body?
- How can you stop germs from spreading to your family and friends?
- What do you do when you are feeling sick? How can you help others who are feeling sick?

CREDITS: Illinois Institute for Genomic Biology "Building a Virus" available at https://bit.ly/3jL3P9A

Build a Virus

FACTS FOR STAFF & FAMILIES

- Viruses are a microscopic collection of genetic material (DNA or RNA) surrounded by a protein coat.
- Viruses cannot replicate by themselves and need to live inside a host to survive. When the virus enters our healthy cells, it attacks the cells and replicates.
- COVID-19 is a type of virus and is spread through droplets released into the air when a person breathes, coughs or sneezes. Then, COVID-19 moves to the mouth, nose, throat and into the lungs, making it hard to breathe.
- The name "COVID-19" is short for coronavirus disease 2019. In COVID-19, 'CO' stands for 'corona,' 'VI' for 'virus,' and 'D' for disease.

CREDITS: Centers for Disease Control and Prevention (CDC) "COVID-19 Frequently Asked Questions" available at https://www.cdc.gov/coronavirus/2019-ncov/faq.html.

Calm Down Path

ACTIVITY DESCRIPTION

In this social and emotional learning (SEL) activity, youth will create a calm down path. As part of the COVID-19 unit, this activity is designed to teach youth the steps they can use to manage their emotions when they are exposed to potentially frightening media about the virus. This activity supports the development of self-awareness and self-management skills.

SUPPLIES

- 5 pieces of different colored paper
- Markers or crayons

STEPS

Hearing about coronavirus on the television, internet, radio and from other people can make you feel some big emotions. What are some of the things you might feel when you hear news about the virus? [scared, angry, worried, calm, confused, happy, sad].

It is normal to have big emotions when you hear certain news about the virus. It is helpful to learn how to manage these emotions in ways that are healthy for you and don't hurt others.

Today you are going to create a calm down path. A calm down path is the 4 steps that you can take to manage big emotions that you feel. After you make your path you are going to practice the steps.

The 4 steps in a calm down path are:

1. Remind yourself that it is never okay to hurt yourself, others or to destroy things. This includes hurting others with our words.
2. Do something that helps you to slow down and recognize how your body is feeling – like taking 5 deep breaths or counting slowly to 10.
3. Use your words to say what you feel and say what you wish will happen.
4. Talk to an adult or a friend about some things you can do to solve the problem or some things you can do to feel better.

Here is how you make your own calm down path.

1. On one of your pieces of paper, draw the number '1' and then draw a picture that will remind you that it is never okay to hurt yourself or others.

2. On your next piece of paper, write or draw the number '2' and draw a picture of something that you can do to help you slow down and recognize how your body is feeling.

Here is a list of some things you can do to help you slow down. You can pick one of these ideas or come up with your own:

- Listen to music or sing a song
- Take 5 deep breaths
- Rip up or crumple a piece of paper
- Do 10 wall push ups
- Trace your hands with your finger or a pencil
- Drink a full glass of water
- Count slowly to 10
- Draw or color what your feelings look like

3. On your next piece of paper, write or draw the number '3' and then a few words that help you remember to talk about how you are feeling, like:
   - I feel
   - I wish…
   - I hope that…
   - It helps when…
4. On your last piece of paper, write the number '4' and draw a picture of an adult or a friend that you trust that you can talk to.

Calm Down Path

STEPS continued

5. Set out your pieces of paper on the floor in order, from 1 to 4, like a path.
6. Now, slowly walk down your path. Step on one piece of paper at a time. When you stand on that piece of paper, see if you can remember that step in the calm down path by saying it out loud.

ADAPTATIONS

- If you are delivering the activity in person or virtually, have youth set their paths out on the floor and then, as the facilitator, randomly call out numbers between 1 and 4. When you call out the number, youth can run to that step in their path and call out the actions listed on the paper. Then, youth can practice the action on that piece of paper before you call out a new number.
- If there are delivering the activity virtually and/or there are constraints with space or materials, youth can use their 4 fingers to remember the 4 steps. Call out a number and have youth hold up that number of fingers while they share that step in the calm down path.

EXTENSIONS

- The more opportunities that youth get to practice using these strategies, the more they will be able to use the steps when big emotions arise. Consider making this practice part of your daily routine. Start or end your programming or your routine at home by practicing these steps.
- Ritualize the steps by turning practice into games. For example, play music while youth walk up and down their path. Stop the music and have youth freeze where they are. Then they can practice and talk about the step that they are standing on.
- Continue supporting youth's emotion management and social awareness by implementing the Empathy Charades activity in this unit.
- For more activities on recognizing feelings and managing big emotions, check out: https://bit.ly/3gTtScK

CREDITS: NPR's "What to Say to Kids When the News is Scary" available at: https://n.pr/2QMhAZm

QUESTIONS FOR DISCUSSION

- It can be hard to know when you are having big feelings. How do you feel when this is happening? What does it feel like in your body?
- How do you know when other people are upset?
- Hearing about coronavirus on the television, internet, radio and from other people can make you feel some big emotions. What are some things that kids might feel when you hear things about the virus?
- What are some healthy things that you can do to help yourself calm down when you are feeling big emotions?
- What are some things that others may have put on their paths to help them calm down?
- It can be hard to talk about our feelings. What are some words that you can use to start talking about your feelings? (E.g., I feel…, I hope…, I wish…). Let's practice saying those things.
- Who are some adults or friends that you can talk to when you are feeling big emotions?

FACTS FOR STAFF & FAMILIES

Families, caregivers, youth development professionals, and teachers play an important role in helping to prepare and protect kids from potentially frightening media. Here are some tips for supporting your youth:

- Limit kids' exposure to breaking news and try not to let your children experience the news without you so that you are aware of what they have seen and heard.
- Check in with kids by asking: "What have you heard and how are you feeling?" Create a safe space to talk where kids can ask questions about what they're seeing, how they're feeling and what they think.
- During these check-ins, provide kids with the facts and context. Take the time to debunk memes, myths and misconceptions.
- When they ask why something happened, avoid labeling others. Labels like "bad people" can increase fear and confusion.
- It's ok to not have all of the answers and to say "I don't know why that happened" to some of kids' questions.
- Encourage kids to "look for the helpers" when something frightening is happening. Encourage them to identify and focus on how people are supporting each other.

COVID Comics

ACTIVITY DESCRIPTION

In this health and literacy activity, youth will create a comic strip to share facts about coronavirus. As part of the COVID-19 unit, this activity is designed help ensure youth understand and can communicate basic information about the virus. This activity supports the development of health literacy and responsible decision-making.

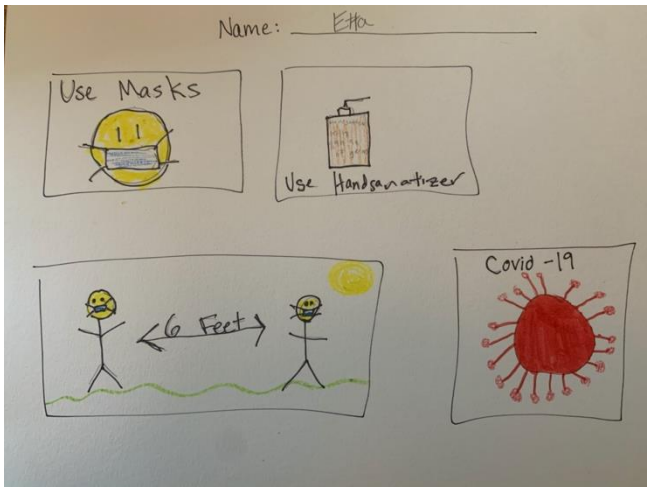
SUPPLIES

- Print out the comic strip template found here: https://bit.ly/3j615n3. Or you can also use the COVID Comics Handout or make your own by drawing 6 boxes on a blank sheet of paper like this https://bit.ly/2Yoi2kG
- Piece of paper
- Pencil
- Markers or crayons

STEPS

In this activity you are going to learn some key facts about coronavirus and ways to prevent it. Then, you will create a comic strip about something important that you want others to know about the virus.

1. First, watch this video that is about the virus: https://bit.ly/3jliojX.
2. Then, check out this comic about the virus: https://n.pr/2YgSgi4. The comic is also available in Spanish and Chinese. It may be helpful to have an adult read it with you.
3. What are some things that you learned about the coronavirus from the video and the comic strip?
   - What does the virus look like? What is its shape?
   - What are some of the things that people do when they are sick with the virus?
   - What can you do to prevent getting sick (keep yourself safe)?
   - What is one thing you want people to know about the coronavirus?
4. Now, you are going to make your own comic strip. In your comic strip, you are going to draw a story about the coronavirus using something that you learned.
5. Before you start, decide on a story. On a piece of paper, write down or draw what you want to happen in your story.
   - What will happen in the beginning of the story?
   - What will happen in the middle of the story?
   - What will happen at the end of the story?



6. Start drawing your story. You can draw pictures and write words or just draw pictures. Draw it in pencil first in case you want to change anything. Then you can color it in with markers or crayons.
7. Once you are done, share your story with someone. Read it to a family member or a friend to share what you learned.

ADAPTATIONS

- If you are delivering the activity virtually or digitally, youth can create and share digital comics and cartoons using ToonyTool: https://www.toonytool.com/.
- If you are delivering the activity virtually, consider breaking up the activity into multiple sessions. Session 1: Read the comic strip together and discuss learnings. Session 2: Come up with your own story and create a comic strip. Session 3: Show and discuss comic strips.

CREDITS: NPR's "A Comic Strip Exploring the New Coronavirus" available at https://n.pr/2YgSgi4. The Simple Parent's comic strip template available at https://n.pr/2YgSgi4

COVID Comics

EXTENSIONS

- Host a virtual comic con. Comic con is an event where comics creators and other artists come together to share and discuss their art. Have youth show and describe their art. They can even dress up as one of their comic characters.

QUESTIONS FOR DISCUSSION

- What are some things that you learned about the virus from the comic strip?
- What are some things that you would want to teach others about the virus?
- What was easy about this activity? What was challenging?
- Comic strips and cartoons are one fun way to teach others information about the virus. How else could you teach other people about the virus?

FACTS FOR STAFF & FAMILIES

- The term "coronavirus" refers to a family of viruses that causes many different types of diseases, including the common cold.
- COVID-19 is a "novel coronavirus," which means it's a new disease unfamiliar to scientists and doctors. The name of the virus is actually a mash-up of the words "corona" (CO); corona means "crown" in Latin (coronaviruses are named for the crown-like spikes on their surface), "virus" (VI), and "disease" (D). The "19" comes from the year 2019, when the disease was first detected.
- COVID-19 can be transmitted by little droplets from coughs or sneezes, which is why doctors say you should always cover your mouth with your elbow when you cough or sneeze. You could also pick it up by touching doorknobs or countertops that an infected person has touched, and then touching your eyes, nose, or mouth.

CREDITS: National Geographic for Kids' "Facts About Coronavirus" available at https://bit.ly/2G37xNa

COVID Comics Handout

Instructions: Make your own comic strip about the coronavirus. First, decide on a story. Then, draw your story in the boxes below. You can draw pictures and write words or just draw pictures. Draw it in pencil first in case you want to change anything. Then you can color it in with markers or crayons.

Empathy Charades

ACTIVITY DESCRIPTION

In this social and emotional learning (SEL) activity, youth will learn about empathy and perspective-taking. As part of the COVID-19 unit, this activity is designed to help youth understand why these skills are especially important during the pandemic and to identify ways they can practice these skills. This activity supports the development of social awareness skills.

SUPPLIES

- Empathy Charades Handout
- Scissors
- Timer (optional)
- Pencil, markers or crayons (optional for step 2)

STEPS

Note: This activity is best done with a group or at least one additional person (an adult, a peer or a sibling).

Do you know what the word 'empathy' means? Empathy means you are able to understand and care about another person's feelings. Here is a video that helps you to learn more about empathy: https://youtu.be/9_1Rt1R4xbM.

Empathy helps you to connect and build positive relationships with other people and to understand more about people from different backgrounds and cultures. Some ways to show empathy are by learning about other people's needs, being kind to others, and being kind to yourself.

Why do you think that it is important to show empathy to others while the virus is going around? What are some ways that you can show empathy to others right now?

In this activity, you are going to play a game where you will get to practice empathy.

1. Cut out the cards on the Empathy Charades Handout. Each of the cards lists something that you can do to show empathy to others while the virus is going around. Look at each card, one at a time, and talk about:
    - What is the action that is listed on the card?
    - How does doing this action show that you care about others?
2. As you are talking about the actions listed on the card, you may want to draw a picture on each card to help you remember what that action is.
3. Put your cards in a pile face down.

4. Take turns pulling a card from the top of the pile, one at a time. Then, act out what is on the card. You can talk while you are acting. Don't show the others what is on your card. The other people will try to guess what you are acting out.
5. Once they have guessed it correctly, switch actors and have someone else take a turn.
6. You can turn the game into a contest by using a timer and giving points to the people who have correctly guessed what the actor is doing.

ADAPTATIONS

- If you are delivering the activity for older youth in this age bracket, challenge them to act out the cards without talking.
- If you are delivering the activity in person or virtually, you can pause after each turn and discuss the following 2 questions:
    - How does that action show others that you care about their feelings?
    - Why is it so important to do that action during the pandemic?
- If you are delivering the activity in person, youth can work in teams to act out the actions on the cards and to guess.
- If you are delivering the activity digitally, encourage families to play together so that there is at least one person who can act and one person who can guess.

Empathy Charades

EXTENSIONS

- Have youth come up with their own ideas and add cards to the game.
- Use the cards (and add more to the pile) to play Pictionary- a game where someone draws the actions on the card while others try to guess what is being drawn.

QUESTIONS FOR DISCUSSION

- What does the word 'empathy' mean?
- What are some ways that people have shown you empathy?
- What are some ways that you can show empathy to others right now?
- Why do you think that it is important to show empathy to others during this pandemic?
- What are some ways you can show empathy and be kind to yourself during the pandemic?

FACTS FOR STAFF & FAMILIES

The best ways to teach youth empathy is to model it for them and engage them in experiences that demonstrate empathy. Here are some ways to practice empathy during the pandemic:

- Stay socially connected. For example, reaching out to friends by phone, writing a supportive note to someone who may be struggling, and donating things to those in need are some ways to show concern that also help you stay connected.
- Consider some of the ways that the pandemic has affected the lives of other people. Think about work, access to housing and other basic needs, schooling, etc. Discuss some of the ways the pandemic has affected other's lives with your kids.
- Be kind to yourself. You are managing a lot and everyone copes with stress, anxiety and fear differently. Practice self-compassion.
- Be considerate. It can be easy to criticize others without making the effort to understand how their situation and experiences are impacting their choices. Remind yourself and your kids that everyone copes differently. Consider and seek to understand how people's life experiences influence their decisions.
- Keep yourself and others safe. Kindly ask others to observe your physical distance and try to gently encourage friends and family to stay home, wash their hands frequently, practice social distancing, and self-isolate if they experience symptoms. Talk to children about how these actions show concern for other's well-being.

CREDITS: Very Well Mind's "How to Practice Empathy During the COVID-19 Pandemic" available at https://bit.ly/2DnnQDJ

Empathy Charades Handout

Instructions: Cut out the cards below and put them in a pile face down. Each of the cards lists something that you can do to show empathy to others during the pandemic.

Call a friend or family member on the phone to ask how they are doing.	Help your family by doing something to make their day easier (like making your bed, putting the dishes away, cleaning up the house, etc.)	Wear a mask.
Kindly ask people to keep 6-feet of distance from you.	Help a friend or a sibling with their schoolwork.	Tell your teacher how much you appreciate them.
Teach people about things they can do to stay safe during the pandemic.	Wash your hands frequently.	Say nice things to yourself.
Say “hi” to someone new.	Share something with a friend, classmate, or sibling.	Talk to an adult or a friend if you are feeling scared, worried or sad.
Thank the person who works in the checkout line at one of the stores you go to for work they do.	Speak up if you hear someone saying mean things about someone else.	Tell someone something that you like about them.
Sneeze and cough into your elbow.	Smile at someone who looks like they are having a bad day.	Give something that you no longer use to someone who could use it.

Glitter Germs

ACTIVITY DESCRIPTION

In this STEM and health activity, youth will conduct a simple experiment to learn about how germs are spread. This activity is designed to introduce youth to how COVID-19 can transfer from person to person through surfaces. This activity encourages the development of health promotion behaviors and responsible decision-making.

SUPPLIES

- Glitter
- Baby oil or lotion
- Cup, silverware and other items you touch during the day
- Paper towel
- Hand soap
- Glitter Germs Handout

STEPS

Germs are everywhere, and because they are so small, you can't see them on your body or hands. Washing your hands is so important because the COVID-19 virus can enter through or nose, mouth or eyes when we touch our face with our dirty hands. (Most people touch their face 15 times an hour!) In this activity, you will conduct a simple experiment to show how germs, like the COVID-19 virus can get on our hands when we touch a surface.(Note: You may want to do this activity outside or in a place in your home where it's okay to get a little dirty.)

1. Set out on a table a few items that you would pick up during the day, like a cup, fork, pencil or toy. Put a small amount of glitter in a shallow bowl. The glitter represents germs, like viruses and bacteria. (See Step 1 on the handout.)
2. Add a few drops of baby oil or lotion to your hands. Rub the oil or lotion all over your hands, including in between your fingers and on the back of your hands.
3. Sprinkle glitter on to your hand or place your hand in the bowl of glitter. Rub the glitter all over your hands.
4. Pick up an item on the table and move it around in your hand. Set it back down. What happened? Where did the glitter (aka germs) go? Repeat with the other items.
5. Let's try to get the glitter off our hands. First, use a paper towel to try to get the glitter off your hands. What happens? Did all the glitter come off easily?
6. Now, use just cold water to get the glitter off your hands. What happens? Did all the glitter come off?
7. Lastly, use warm water and soap and wash for at least 20 seconds. What happens? Did all the glitter come off?

CREDITS: A to Z Teacher Stuff's "Glitter Germs" available at https://bit.ly/330PwqC

ADAPTATIONS

- If you are delivering the activity in-person, use different color glitter for each person. Have youth pass objects or walk around a room for 2 minutes. See how the glitter moves around the room and mixes together.
- If you are delivering the activity virtually, conduct the experiment during the virtual session. Have youth make predictions about what will happen when you try to get the glitter off your hands.

EXTENSIONS

- Play germ tag with your friends and family! Put stickers (aka "germs") on the other people you tag. At the end of the game, see how many germs have spread to each other.
- To learn more about washing your hands to keep the virus out of your body complete the activity "Soap and Viruses Don't Mix", or if you want to learn about what germs do to living things over time, complete the activity "Growing Germs".

QUESTIONS FOR DISCUSSION

- Why did the paper towel not work as well as soapy water?
- What are some of the ways you can remind yourself to wash your hands frequently?
- How can you avoid touching your face or others throughout the day?
- How does washing your hands help others?

Glitter Germs

FACTS FOR STAFF & FAMILIES

- Frequent and thorough handwashing with soap is one of the best ways to protect yourself and others from COVID-19.
- You should wash your hands for at least 20 seconds. Make sure to get the backs of your hands, between your fingers and under your nails.
- You should wash your hands before meals, after using the bathroom, after sneezing or blowing your nose, and after touching potentially contaminated surfaces, like doorknobs.
- Regular soap is just as effective as antibacterial soap. If water and soap are not available, use alcohol-based hand sanitizer. The hand sanitizer should contain at least 60% alcohol.

CREDITS: Centers for Disease Control and Prevention (CDC): "When and How to Wash Your Hands" available at https://bit.ly/2QVbdCV

Glitter Germs Handout

Step 1: Set out on a table a few items that you would pick up during the day, like a cup, fork, pencil or toy. Put a small amount of glitter in a shallow bowl.

Step 2: Add a few drops of baby oil or lotion to your hands. Rub the oil or lotion all over your hands, including in between your fingers and on the back of your hands.

Step 3: Sprinkle glitter on to your hand or place your hand in the bowl of glitter. Rub the glitter all over your hands.

Step 4: Pick up an item on the table and move it around in your hand. Set it back down. Repeat with the other items.

Step 5-7: Try to get the glitter off your hands. First use just a paper towel. Then, use only cold water. Finally, use warm soapy water.

Growing Germs

ACTIVITY DESCRIPTION

In this STEM activity, youth will conduct a simple experiment to understand how germs work. This activity is designed to introduce youth to how germs can affect other living things. This activity encourages the development of STEM literacy, inquiry and critical thinking skills.

SUPPLIES

- 3 slices of bread
- 3 resealable plastic zipper bags
- Gloves
- Marker

STEPS

Germs are very small, living things that can cause people to get sick. These include viruses (like COVID-19) and bacteria. Germs are everywhere, and because they are so small, we can't usually see them with our eyes. In this activity, you will conduct an experiment to see what germs can do to bread and the importance of washing your hands. [Note: This activity may not be suitable for individuals and families with mold sensitivities.]

1. Get out a loaf of bread that has not been touched. (Keep it in the bag for now).
2. Put on pair of clean rubber gloves. Open the bag and grab out one piece. Put the slice of bread in a bag and label the bag "Control" with a marker. Take off the gloves.
3. Get your hands dirty (put them in dirt or touch a bunch of things in your home). Grab another piece of bread and put your hands all over it for at least 10 seconds. Put the slice of bread in the bag and label the bag "Dirty Hands" with a marker.
4. Go to a sink and wash your hands with warm water and soap for at least 20 seconds. (Make sure to clean the back of your hands and in between your fingers.) Grab another piece of bread and put your hands all over it for at least 10 seconds. Put the slice of bread in the bag and label the bag "Clean Hands" with a marker.
5. Keep the bread in the bags for one week. Make a guess (hypothesis) about what you think will happen. Take a look at it every day and see how it changes.

CREDITS: TeachStarter's "Tips to Reduce Germs in the Classroom" available at https://bit.ly/3gwT88x

"Moldy bread, 3rd place" by Benimoto is licensed under CC BY 2.0

ADAPTATIONS

- If you are delivering the activity in-person, sit the youth in a circle or in pairs and have them pass the bread to each other (with clean and dirty hands).
- If you are delivering the activity virtually and/or supporting youth in a low-resource setting with challenges related to food insecurity, conduct a demonstration rather than asking them to use their own bread.

EXTENSIONS

- Take pictures of your bread each day. Write down what is happening to each slice on that day.
- Conduct the experiment again but this time put the bread on a dirty and clean surface (like a table) and see what happens.
- If you touch a dirty surface, the only way a virus or bacteria can enter your body is if you touch your eyes or mouth. To learn more about washing your hands to keep the virus out of your body complete the activity "Soap and Viruses Don't Mix".

QUESTIONS FOR DISCUSSION

- What happened at the end of the week? How are the slices of bread different?
- What are some of the ways you can remind yourself to wash your hands frequently?
- How can you avoid touching your face or others throughout the day?
- How does washing your hands help others?

Growing Germs

FACTS FOR STAFF & FAMILIES

- Frequent and thorough handwashing with soap is one of the best ways to protect yourself and others from COVID-19.
- You should wash your hands for at least 20 seconds. Make sure to get the backs of your hands, between your fingers and under your nails.
- You should wash your hands before meals, after using the bathroom, after sneezing or blowing your nose, and after touching potentially contaminated surfaces, like doorknobs.
- Regular soap is just as effective as antibacterial soap. If water and soap are not available, use alcohol-based hand sanitizer. The hand sanitizer should contain at least 60% alcohol.

CREDITS: Centers for Disease Control and Prevention's (CDC) "When and How to Wash Your Hands" available at https://bit.ly/2QVbdCV

Lungs in a Bottle

ACTIVITY DESCRIPTION

In this STEM activity, youth will conduct a simple experiment to learn about how our lungs work. This activity is designed to introduce youth to how COVID-19 can impact our lungs and our breathing. This activity encourages the development of STEM literacy, inquiry and critical thinking skills.

SUPPLIES

- A plastic bottle
- 2 balloons
- 1 straw
- 1 rubber band
- Scissors
- Tape or playdough
- Lungs in a Bottle Handout

STEPS

The COVID-19 virus can enter through our nose or mouth and travel to our lungs. Our lungs help us to breathe, so when a virus attacks our lungs, it can cause coughing or pain in our chest. In this activity, you will conduct a simple experiment to show how the lungs work.

1. Ask an adult to cut the bottle in half using scissors. Use the top half of the bottle. See step 1 on the handout.
2. Tie a knot in one end of the balloon. Cut the opposite end of the balloon off. Stretch the cut off end of the balloon around the bottom of the plastic bottle. See step 2 on the handout.
3. With the second balloon, insert a straw into the balloon, and then secure balloon to the straw using a rubber band. (Make sure to not tie it too tight – the air needs to flow through the straw.) You can test the balloon by blowing air into the straw to make sure the balloon inflates. See step 3 on the handout.
4. Put the straw and the balloon into the neck of the bottle. Add playdough around the straw to make a seal, so that air does not get in. See step 4 on the handout.
5. Now it's time to conduct our experiment. Hold the bottle and pull the knot of the balloon at the bottom. What happens to the balloon inside the bottle? What happens when you let go?

Explanation of the Science: The balloon inside of the bottle represents our lungs, and the balloon at the bottom is our diaphragm. A diaphragm is a big muscle that works with your lungs to move air in and out of your lungs. When we breathe, the air goes down into our lungs and the diaphragm moves down to create more space.

ADAPTATIONS

- If you are delivering the activity in-person, have youth make predictions about what will happen to the balloons before they conduct the experiment.
- If you are delivering the activity virtually, send home a kit with the activity supplies so that youth can conduct the experiment alongside of the facilitator.

EXTENSIONS

- Create another model of how lungs work. This time using plastic bags. Follow the instructions here: https://bit.ly/2D5x7jF
- When you need to cough or sneeze, you should do it in your elbow, instead of your hands. This helps stop the spread of disease. Make a poster to remind you and your family members to cough and sneeze into your elbow.

QUESTIONS FOR DISCUSSION

- When we breathe out, sneeze or cough, we can spread a virus to another person. What are some of the ways you help stop the spread if you are sick?
- What do you think happens to your lungs when you are sick? What happens to your balloon (a.k.a. lung)?
- Why should we try to stop the spread of the virus?

CREDITS: Science Spark's "How Do Lungs Work?" available at https://bit.ly/2GsWDk1

Lungs in a Bottle

FACTS FOR STAFF & FAMILIES

- The COVID-19 virus can enter through your nose or mouth and travel to your lungs. Your lungs help you to breathe, so when a virus attacks your lungs, it can cause coughing or pain in your chest.
- COVID-19 can cause complications in the lungs, including pneumonia. When someone has pneumonia, their lungs become filled with fluid and inflamed, which makes it difficult to breathe. Pneumonia can be so severe in some people that they require treatment at a hospital with a ventilator.
- People who have asthma or other breathing issues can be more at risk for having a severe reaction to COVID-19. These people should take extra precautions to protect themselves from getting infected with COVID-19.

CREDITS: Johns Hopkins Medicine's "What Coronavirus Does to the Lungs" available at https://bit.ly/3jnGvyG

Lungs in a Bottle Handout

Step 1: Ask an adult to cut the bottle in half using scissors. Use the top half of the bottle.

Step 2: Tie a knot in one end of the balloon. Cut the opposite end of the balloon off. Stretch the cut off end of the balloon around the bottom of the plastic bottle

Step 3: With the second balloon, insert a straw into the balloon, and then secure balloon to the straw using a rubber band. You can test the balloon by blowing air into the straw to make sure the balloon inflates.

Step 4: Get a balloon and tie a knot in one end of the balloon. Cut off the other end. Stretch the balloon around the bottom of your plastic bottle.

Soap and Viruses Don't Mix

ACTIVITY DESCRIPTION

In this STEM and health activity, youth will conduct a simple experiment to learn about how soap protects us from viruses. This activity is designed to build wonder and excitement while introducing youth to the science behind handwashing. This activity encourages health promotion skills and responsible decision-making.

SUPPLIES

- Bowl or plate
- Water
- 2 tablespoons of pepper
- A few drops of dish soap or regular soap

STEPS

You have probably heard that it is important to wash your hands during the pandemic, but you might not know why. In this activity, you will do a simple experiment that shows how soap protects us from viruses, like COVID-19.

1. Get a bowl or plate and add 1 to 2 cups of water.
2. Sprinkle 2 tablespoons of pepper onto the water. (We are going to pretend the pepper is a virus.)
3. Stick your finger into the water and hold it there for 5 seconds. Notice what happens to the pepper. What happens to your finger when you pull it out of the water?
4. Find a sink and wash your hands with soap for at least 20 seconds, or put a drop of dish soap on your finger.
5. Stick your finger in the water again and hold it for 5 seconds. Notice what happens to the pepper. What happens to your finger when you pull it out of the water?

Explanation of the Science: When we touch our eyes, nose or mouth with our hands, germs can get in and make us sick. Soap can "pick up" things, like germs, on our skin and carry them away when mixed with water. In this experiment, the soap carried away the pepper from our finger. Though soap cannot kill germs, like an antibiotic, it does a good job of removing as many possible viruses away from our skin.

ADAPTATIONS

- If you are delivering the activity virtually, send home a kit with the activity supplies so that youth can conduct the experiment alongside of the facilitator.
- If you are delivering the activity in-person, put youth in small groups or pairs. Have them take turns conducting the experiment and discus what happened to the pepper.

EXTENSIONS

- Do the experiment again, but change it up. For example, wash your hands for only 5 or 10 seconds, instead of 20. What happens to the pepper and your finger this time?
- Try a different handwashing experiment using glitter and hand sanitizer. You can find instructions for the activity here: https://bit.ly/3jqGEBr
- You should always wash your hands for at least 20 seconds. Instead of counting to 20, try singing a song! Make up your own song to sing, or pick a song that is about 20 seconds long (ex. "Happy Birthday" sung twice).

QUESTIONS FOR DISCUSSION

- When are the times that you should wash your hands?
- What are some of the ways you can remind yourself to wash your hands frequently?
- How can you avoid touching your face or others throughout the day?
- How does washing your hands help others?

CREDITS: Mommy Poppins' "Pepper and Soap Experiment" available at https://bit.ly/2Qxx17k

Soap and Viruses Don't Mix

FACTS FOR STAFF & FAMILIES

- Frequent and thorough handwashing with soap is one of the best ways to protect yourself and others from COVID-19.
- You should wash your hands for at least 20 seconds. Make sure to get the backs of your hands, between your fingers and under your nails.
- You should wash your hands before meals, after using the bathroom, after sneezing or blowing your nose, and after touching potentially contaminated surfaces, like doorknobs.
- Regular soap is just as effective as antibacterial soap. If water and soap are not available, use alcohol-based hand sanitizer. The hand sanitizer should contain at least 60% alcohol.

CREDITS: Centers for Disease Control and Prevention's (CDC) "When and How to Wash Your Hands" available at https://bit.ly/2QVbdCV

Stay Safe Hat

ACTIVITY DESCRIPTION

In this STEM activity, youth will create a social distancing hat. As part of the COVID-19 unit, this activity is designed to teach youth why physical distancing helps to stop the spread of the virus and why 6-feet is the recommended metric. This activity supports the development of health literacy, social awareness and responsible decision-making.

SUPPLIES

- Ruler or tape measure
- Supplies for making and decorating a hat such as construction paper, cardboard, plastic bottles, masking tape, markers, etc.
- Note: It may be helpful to use a long item such as a cardboard tube from a roll of wrapping paper, a pool noodle, sticks, rolled-up poster board or newspapers, etc. to add length to your hat.

STEPS

During this pandemic (time when the virus is spreading), experts are helping us learn how to stop the spread of the virus by doing things like washing our hands, wearing masks, and trying to stay at least 6 feet apart from each other. One question you may have is "Why 6 feet?"

Doctors and scientists have learned that people can catch the virus from others when they cough, sneeze or even talk. The virus can spread through the droplets that come out of people's mouths and noses. Sometimes, these droplets can travel through the air up to 6 feet (or 2 meters).

So, how far is 6 feet?

1. First, check out these songs to learn more about how long 6 feet (or 2 meters) is and how to keep a safe space between you and others:
   - Greet From 6 Feet: https://youtu.be/uZmajkrTj6A
   - 2 Meters Away: https://youtu.be/3nQgTywKmvQ
2. Now that you know how far 6 feet is, you are going to make 'stay safe hat' that keeps you 6 feet away from others when you put it on. Check out the photos to the right for some ideas.
3. You can make your hat out of any supplies that you have. Your goal is to make your hat as close to 6 feet in length as you can. Use your ruler or a tape measure to see how long you can make it.

ADAPTATIONS

- If you are delivering the activity digitally, have youth take a photo of themselves wearing their hats and upload the photo to your program platform or Facebook page.
- If you are delivering the activity in person, have youth wear their hats for a portion of your program time to reemphasize social distancing practices in your program space.

EXTENSIONS

- Spraying water or room deodorizer from a spray bottle is a lot like droplets traveling through the air. Try spraying water from bottle and measure the distance that the water travels. Would the length of your hat keep you far enough away from the droplets? What happens when you spray water into a mask? Does it stop the water from travelling 6 feet?

CREDITS: Social Distancing Hats by Nexus Learners. See https://bit.ly/3h0wllQ

Stay Safe Hat

QUESTIONS FOR DISCUSSION

- How does staying 6 feet away from others keep you safe? How does it keep others safe?
- It can be hard when you can't give someone you care about a hug or a high five. What are some other ways that you can show people that you care about them while staying 6 feet away?
- A large hat can remind you to keep space between you and others. How else can you remind yourself to stay 6 feet away from others?
- It can be easy for people to forget to keep a safe distance from others. What are some nice ways to ask people to stay a safe distance away without hurting their feelings?
- One way that the virus spreads is when droplets from our mouths or noses spread through the air to other people. How can wearing a mask stop those droplets from traveling 6 feet through the air?

FACTS FOR STAFF & FAMILIES

- Social distancing, also called "physical distancing," means keeping a safe space between yourself and other people who are not from your household.
- To practice social or physical distancing, stay at least 6 feet (about 2 arms' length) from other people who are not from your household in both indoor and outdoor spaces.
- COVID-19 spreads mainly among people who are in close contact (within about 6 feet) for a prolonged period. Spread happens when an infected person coughs, sneezes, or talks, and droplets from their mouth or nose are launched into the air and land in the mouths or noses of people nearby. The droplets can also be inhaled into the lungs.
- Recent studies indicate that people who are infected but do not have symptoms likely also play a role in the spread of COVID-19. Since people can spread the virus before they know they are sick, it is important to stay at least 6 feet away from others when possible, even if you—or they—do not have any symptoms.
- COVID-19 can live for hours or days on a surface, depending on factors such as sunlight, humidity, and the type of surface. It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or eyes. However, this is not thought to be the main way the virus spreads. Social distancing helps limit opportunities to come in contact with contaminated surfaces and infected people outside the home.

CREDITS: Center for Disease Control's (CDC) "Social Distancing" available at https://bit.ly/2Z7TzAx

Virus Detectives

ACTIVITY DESCRIPTION

In this health activity, youth will do a scavenger hunt to learn more about where a virus lives on surfaces in the home. This activity is designed to introduce youth to surface transmission of COVID-19. This activity encourages the development of health literacy, inquiry and critical thinking skills.

SUPPLIES

- A pen or pencil
- Post-its or Virus Cards and tape
- Virus Scavenger Hunt Handout

STEPS

The COVID-19 virus is spread from one person to another through two ways.

The first way is through the air through respiratory droplets, like when someone sick coughs or breathes and someone else inhales that air or the droplets land on their nose or mouths. (Note: people who are sick may not be showing symptoms, so it's best to keep at least 6 feet of distance from others.)

The second is way is by touching surfaces, like a table, that have the virus on them, and then touching our eyes or mouth. In this activity, we will look for the surfaces in our homes where germs, like viruses and bacteria can live.

1. Find all six clues on the Virus Scavenger Handout. Mark each clue with post-its or cut out the Virus Clue Cards and use tape (see handout). You can also draw the object or write your answer in the square.
2. Talk with a parent or loved one in your home about what you found and what you can do to keep your home clean and safe from the virus.

ADAPTATIONS

- If you are delivering the activity in-person, modify the handout to find places in your building or school. Have youth work in pairs to find the surfaces together.
- If you are delivering the activity virtually, ask youth to do the activity before your virtual session. Discuss how the activity went and the questions for discussion during your virtual session.

EXTENSIONS

- Draw a map of the inside of your home. Label each room, like kitchen or bedroom. Mark the spots on your map where the germ hotspots are, like on the toilet or kitchen table.
- Create signs to remind you and the people you live with to wash their hands. Hang these signs in areas where the germs are most likely to be.
- Ask an adult to show you how to clean surfaces with warm water and soap to make sure they are free from germs.
- If you touch a dirty surface, the only way a virus or bacteria can enter your body is if you touch your eyes or mouth. To learn more about washing your hands to keep the virus out of your body complete the activity "Soap and Viruses Don't Mix".

QUESTIONS FOR DISCUSSION

- What surprised you to learn about viruses that could be in your home?
- What are the ways you can keep the surfaces in your home clean?
- How can you remind yourself not to touch surfaces that might have a virus on them?
- Outside of your home, what are the surfaces where the virus is most likely to live?

Virus Detectives

FACTS FOR STAFF & FAMILIES

- The COVID-19 virus is spread from one person to another through two ways. The first way is through the air, like when someone sick coughs or breathes and someone else breathes in that air. The second is way is by touching surfaces, like a table, that have the virus on them, and then touching our eyes or mouth.
- In one study conducted by the National Institutes of Health, COVID-19 can live up to three days on stainless steel and plastic and five days on metal. You should regularly clean surfaces and objects that are touched often, like tables, countertops, light switches and door knobs.
- You should wash your hands for at least 20 seconds with warm soapy water. It's especially important to wash:
    - Before eating or preparing food
    - Before touching your face
    - After using the restroom
    - After leaving a public place
    - After blowing your nose, coughing, or sneezing
    - After handling your mask
    - After touching animals or pets
- There have been no reports of COVID-19 spreading through swimming pools or hot tubs, but it's still a good idea to keep physical distance (6 feet) between you and the people you do not live with. When you're not in the water, wear a face mask.

CREDITS: WebMD's "How Long Does the Coronavirus Live on Surfaces?" available at https://wb.md/2DyFbcU

Virus Detectives Handout

Instructions: Read the clues and find the places in your home where viruses can live. Mark the spot in your home with Post-its or cut out the Virus Clue Cards. You can also draw or write your answer in the square.

Clue #1: COVID-19 can live on places where people touch often. Find the door knob that people touch the most in your home.	**Clue #2:** COVID-19 can live on a surface for hours or up to several days. Find a place in your home where you think the virus could live the longest.
Clue #3: Electronics (keyboards, remotes and phones) can be a good hiding place for germs. Find an electronic where the virus could live.	**Clue #4:** The virus can live in places longer that are dark and cold. Find a place in your home that is dark or cold where the virus could live.
Clue #5: Bathrooms can be full of germs. Find the place in the bathroom where you think the virus could live.	**Clue #6:** COVID-19 can live longer on hard, smooth surfaces. Find a place in your home that is hard and smooth where the virus could live.

The 50 State Afterschool Network

The Learning About COVID-19 Activity Guide has been developed for the 50 State Afterschool Network with leadership from the Alaska Afterschool Network to engage and support children and youth nationwide.

In each state, the afterschool network is broadening opportunities for youth. Seeking equitable outcomes for underserved children to succeed in school and future jobs, a statewide afterschool network brings together cross-sector leaders with a common vision and coordinated strategy to advance quality afterschool and summer learning programs

Alabama Afterschool Community Network
Alaska Afterschool Network
Arizona Center for Afterschool Excellence
Arkansas Out of School Network
California AfterSchool Network
Colorado Afterschool Partnership
Connecticut After School Network
Delaware Afterschool Network
Florida Afterschool Network
Georgia Statewide Afterschool Network
Hawai'i Afterschool Alliance
Idaho Afterschool Network
Afterschool for Children and Teens Now (ACT Now) Coalition (IL)
Indiana Afterschool Network
Iowa Afterschool Alliance
Kansas Enrichment Network
Kentucky Out-of-School Alliance
Louisiana Center for Afterschool Learning
Maine Afterschool Network
Maryland Out of School Time Network
Massachusetts Afterschool Partnership
Michigan After-School Partnership
Ignite Afterschool (MN)
Missouri AfterSchool Network
Mississippi Statewide Afterschool Network
Montana Afterschool Alliance
Beyond School Bells (NE)
Nevada Afterschool Network
New Hampshire Afterschool Network
New Jersey School- Age Care Coalition
NMOST (New Mexico Out of School Time) Network
New York State Network for Youth Success
North Carolina Center for Afterschool Programs
North Dakota Afterschool Network
Ohio Afterschool Network
Oklahoma Partnership for Expanded Learning Opportunities
OregonASK
Pennsylvania Statewide Afterschool/Youth Development Network
Rhode Island Afterschool Network
South Carolina Afterschool Alliance
South Dakota Afterschool Network
Tennessee Afterschool Network
Texas Partnership for Out of School Time
Utah Afterschool Network
Vermont Afterschool, Inc.
Virginia Partnership for Out-of-School Time
Washington Expanded Learning Opportunities Network
West Virginia Statewide Afterschool Network
Wisconsin Afterschool Network
Wyoming Afterschool Alliance