Keeping Busy Hands Clean (3rd Grade)

This is a longer lesson; it can be split into two parts and taught over two days.

HAND-WASHING OBJECTIVES CHECK LIST

Students will be able to:

- ☑ ***perform*** proper hand washing techniques.
- ☑ ***express ways*** they can ***remember to wash their hands regularly***.
- ☑ ***explain*** the ***importance*** of washing hands.
- ☑ ***identify*** that fruits and vegetables fit in the food groups of MyPlate and are healthy.

MATERIALS AND INGREDIENTS

Bins	Teacher Provides	Will be Provided
In Kitchen Bin - cutting board (teacher only) - chef knife (teacher only) - large bowl ***In Paper Goods Bin*** - spoons/forks* (if needed) - paper plates* (if needed)	- activity sheets copies* - scissors* - small handful of confetti (small pieces of paper from a hole puncher) (optional) - napkins*	- book: "Killing Germs" by Melanie Mitchell - seasonal fruit or vegetable - family letters*

*one per student

EXPERIMENT MATERIALS

Bins	Supplies	Materials
	- tape for keeping Petri dishes securely closed - paper towels*	- **2 Petri dishes** (use at room temperature and store red side up) - hand soap

*one per student

Reinforcing Colorado Comprehensive Health Standards

Third Grade, Standard 2. Physical and Personal Wellness. 1. Apply knowledge and skills to engage in lifelong healthy eating.

Third Grade, Standard 4. Prevention and Risk Management.7. Apply personal safety and skills to prevent and treat injury. *Health-Skills:* Self-Management/Personal Responsibility.

While INEP nutrition lessons focus on the Colorado Comprehensive Health Standards, you will find you may utilize lessons to reinforce physical education, mathematics, reading, writing & communicating, science & social studies standards for your class.

SET-UP

Copies:
- Make copies of Petri dish experiment sheet (each student) and *Steps to Hand Washing* sequencing activity sheet (each student).

Work area:
- Students will work individually at their desks.
- Have nutrition table ready for lesson materials and ingredients.

Food-prep:
- Wash seasonal fruit or vegetable for snack. Cut and divide the fruit or vegetable into appropriate number of pieces for the class. Use plates and spoons if needed.

Other-prep:
- Have a small handful of confetti ready to use in beginning of lesson. (**Note:** make confetti with small bits of paper or with a hole punch.)
- Petri-Dishes **(IMPORTANT)**
  - Have your two Petri dishes ready for the experiment.
  - **Take Petri dishes out of the fridge an hour before using-red side up.**
  - *Plan to tape the Petri dishes shut while the germs grow. To dispose of Petri dishes properly keep them taped shut securely and throw away in trash.*
- Have scissors along with sequencing activity sheet ready to pass out to students to do while groups of students are washing their hands.
- Have soap and paper towels ready for hand washing.
- Have the book *Killing Germs* ready to read to the class.

Useful Information about Petri dishes:

Petri dishes should be refrigerated and stored upside down (red side up) until they are ready to be used. The experiment works best when the Petri dishes have been set out at room temperature (70°F) for one hour before the experiment. The pink gel that covers the bottom of the dish is an ideal medium for bacteria to proliferate. For best results, after the Petri dishes are imprinted with bacteria, set them upside down at room temperature (above 70°F) to promote bacteria growth. Have students observe the growth of germs after a couple of days or more. Discard dishes as soon as students have recorded their observations. If dishes are kept more than a week, the germs will quickly multiply as they absorb the food that is available. Therefore, there will be little

difference between the two dishes that are being compared. This could be confusing for students. **Note:** The growth rate of germs depends on the room temperature. If the room is colder than 70°F, it may take longer than a couple of days for the germs to become visible.

INTRODUCTION WITH STUDENTS

Let's Wake Up Our Brains! Brain Boost Exercise!

Run those Germs Off- Repeat to get your heart going!

- ♥ Run, run, run in place
- ♥ Run those germs off
- ♥ Jump, jump, jump in place
- ♥ Jump those germs off
- ♥ Jog, jog, jog in place
- ♥ Jog those germs off
- ♥ Hop, hop, hop in place
- ♥ Hop those germs off
- ♥ Wash, wash, wash those germs off
- ♥ Good –Bye Germs!!

Now that our minds are ready to go, let's get started on our *nutrition lesson*.

- Begin the lesson by having your students get ready to hear a story. Hold the confetti secretly in your hand. When you have your students' attention fake sneeze into your hand and let the confetti fly everywhere.
- Tell students that today they are going to learn about germs. Tell them that germs spread in many ways and one way is through sneezing just like the confetti flew, but germs fly faster and farther.
- Start a discussion about germs.
  - Where do we find germs?
  - What do germs look like?
  - What do germs do to our bodies?
  - How do germs spread?
- **Refer to the Key Behavior on the board and tell students that it is important to wash their hands regularly to get rid of nasty germs that are everywhere. It is also important to "Make half their plate fruits and vegetables", to help them get the fruits and vegetables they need to fight off germs inside their bodies.**
- Read the book *Killing Germs* to the class. Also read the **Facts about Germs** at the end of the book.
- Tell students that today they will use Petri-dishes to safely grow some germs, practice good hand washing skills, and eat healthy fruit that has vitamin C and can help fight germs in our bodies.
- **Important:** Tell students that just because they have germs on their hands it does not mean they will get sick. For them to get sick the germs need to get inside their bodies through their mouths or eyes. Eating fruits and veggies also helps our blood fight off germs inside our bodies. Remind students not to worry about germs but to wash their hands regularly and eat fruits and vegetables.

PROCESS

Step 1: Show students the Petri dishes. Explain that they are used in science laboratories to grow all kinds of tiny organisms including germs. Explain that the pink gel in the dish is the food needed for the germs to grow. Tell students that they will be used in today's germ experiment.

Step 2: **Experiment, Part One:**

- ✓ Remind students that we all have germs on our hands.
- ✓ Pick a volunteer and have him/her shake hands with a few students.
- ✓ Have the volunteer put their (right) hand on the doorknob, phone and desk.
- ✓ Ask the class if they think that student's hand has germs on it.
- ✓ Have the volunteer press his/her (right) fingers firmly on the agar (pink jelly) of one of the Petri dishes.
- ✓ Explain to the class that the student volunteer put invisible germs from his/her fingers onto the dish.
- ✓ **Tape closed**, date and label the first dish "unwashed hand".
- ✓ Store it upside down (gel side up) and at room temperature.
- ✓ Ask the students what they think will happen inside the Petri dish.

Step 3: Do a demonstration of how to wash hands thoroughly. **Note:** If there is no sink in your classroom, go through all the steps.

- ✓ use warm water and soap
- ✓ rub all parts of your hands
- ✓ dry hands with a clean towel

Remind students that it takes time to wash hands thoroughly, at least 20 seconds of rubbing and washing. Sing the ***"ABC" song***, as you wash your hands.

Step 4: **Experiment, Part Two:**

- ✓ Have a volunteer wash his/her hands thoroughly at the sink.
- ✓ Have the class sing the "***ABC" song*** as he/she washes.
- ✓ Have the student press clean fingers firmly against the agar in the second Petri dish.
- ✓ **Tape closed**, date and label the dish "washed hand".
- ✓ Store it upside down (gel side up) and at room temperature.
- ✓ Ask the students what they think will happen inside the Petri dish.

Step 5: Pass out the experiment sheet and go over with students. Have them draw and write about their predictions. What do they think the germs will look like after they have had a chance to grow for a couple of days? Tell them that predictions are guesses and scientists make predictions or guesses when they are trying to answer a question.

Step 6: Collect and save their prediction sheets for completing when germs have had a chance to grow.

Step 7: Pass out “Steps to Hand Washing” sequencing activity sheet along with scissors to cut out and put in the right order. As students begin this activity have small groups of students wash their hands well at the sink.

Step 8: After students have finished washing their hands, pass out the snack. Tell students that eating fruits and vegetables every day helps keep our body healthy and more able to fight off germs that get into our bodies.

Step 9: **Let’s Eat, Let’s Talk. While students are eating ask them what they learned. Help students think of things they can do to make sure they remember to wash their hands regularly. Ask and discuss the questions in the box Make Health Happen.**

Step 10: After a couple of days, have students observe the two Petri dishes and have them record their observations and complete the activity sheet. Discuss with students the results of the experiment.

IMPORTANT: *Do not* wait more than a couple of days to observe as the germs will continue to grow in both dishes and you will not be able to see a difference between the two.
IMPORTANT: Keep the tape around the petri dishes and throw them away after observing.

Make Health Happen

- ☑ What did you learn today that makes you want to wash your hands before you eat or cook?
- ☑ What are you going to do to help make sure you wash your hands long enough?
- ☑ How do germs spread?

BACKGROUND INFORMATION

It is important for students to learn about germs, the tiny organisms, or living things, that can cause disease. The term “germs” refer to bacteria, viruses, protozoa, and fungi.

Germs are found in the air, water, plants, animals as well as inside and outside our bodies. Many kinds of germs are helpful, such as the bacteria found in our gut that aid in digestion. However, there are also harmful germs that can cause infections.

The spread of harmful germs is preventable through simple public health measures such as covering your mouth when coughing, getting vaccinated, and washing your hands.

Washing your hands with soap for at least 20 seconds is one of the easiest and best way to get rid of germs.

Students should wash their hands before eating, before preparing food, after going to the bathroom, after blowing their nose, after playtime, and after touching a pet.

Traditional soap vs. antibacterial soap: Antibacterial soap has become a popular alternative to traditional soap because it contains certain chemicals that kill bacteria. Although this sounds beneficial, researchers concluded that antibacterial soaps are no better at preventing illness than washing hands with plain soap and water outside of healthcare settings. In school settings, using traditional soap is the cheapest and best option.

What about hand sanitizer? Soap and water are your best bet, but hand sanitizers also kill germs. They work best when they contain at least 60% alcohol and your hands do not have dirt on them. They do not kill all germs but are a good solution when soap and water is not an option.

Hand washing before any cooking or food preparation is required and particularly important in nutrition classes. Foodborne illness caused by germs can be prevented by establishing good hand washing habits and wearing disposable gloves when handling food. **Note:** In some nutrition lessons, students prepare uncooked dishes, such as salads to share with other students. For those food preparation activities, students are required to wear plastic gloves on both of their hands. When wearing plastic gloves, the student should not touch anything but the ingredients and utensils.

Steps to Hand Washing

Rinse your hands with warm water.

Turn off the water.

Turn on the water.

Say “excuse me” when you burp.

Put soap on your hands.

Dry your hands.

Use a tissue when you sneeze.

Get your hands wet.

Cover your mouth when you cough.

Sing the “ABC” song while you scrub your hands all over.

Pasos para lavarse las manos

Enjuágate las manos con agua tibia.

Cierra el agua.

Abre el agua.

Di “disculpe” cuando tengas un erupto (burp).

Pon jabón en tus manos.

Seca tus manos.

Usa una toalla cuando estornudes.

Moja tus manos.

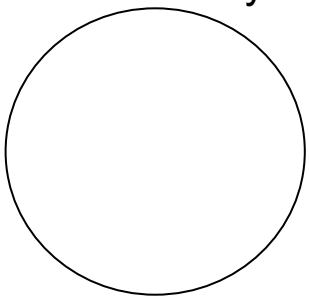
Tápate la boca cuando estés tosiendo.

Canta el abecedario cuando te
estés lavando las manos una y otra vez.

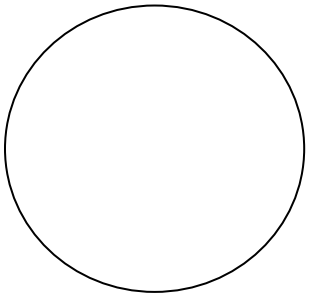
Hooray for Hand Washing

Name:_____ Date:_____

Draw and write your predictions:



unwashed hand



washed hand

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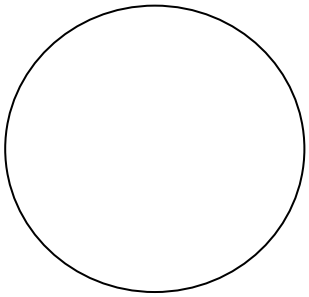
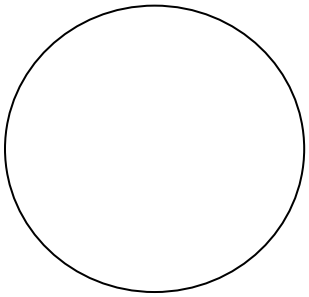
STOP! Wait for 2 or 3 days.

_____

Draw and write your observations (after 48-72 hours):



unwashed hand



washed hand

_____

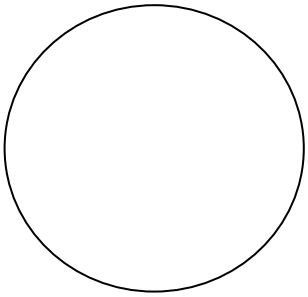
_____

_____

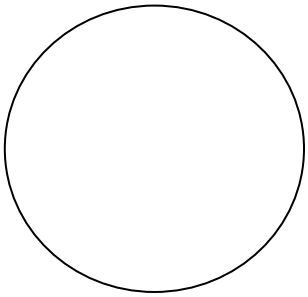
Bravo por Lavarse las Manos

Nombre: _____ Fecha: _____

Dibuja y escribe tus predicciones:



mano no lavada



mano lavada

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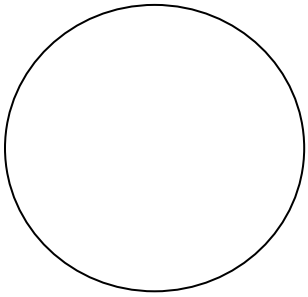
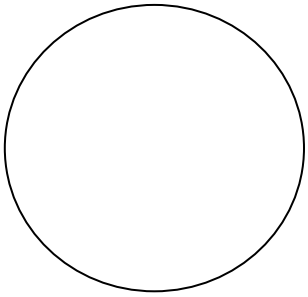
¡Para! Espera 2 o 3 días.

Dibuja y escribe tus observaciones (después de 48 o 72 horas).



mano no lavada



mano lavada

_____

_____

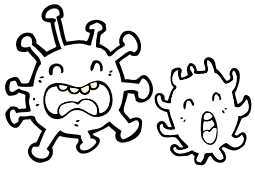
_____

Family Letter:
Handwashing

Dear Families,

Today, your student learned the importance of washing their hands regularly for at least 20 seconds. They practiced singing the song (below) while they washed their hands. If they wash while they sing the whole song, their hands will be clean.

Studies show that practicing regular handwashing reduces the number of school absences from viruses, colds, flu, and stomachaches in children.



Let's sing this song together before we eat using the tune of "wheels on the bus"!

This is the way you wash your hands, wash your hands, wash your hands.
This is the way you wash your hands, for 20 seconds at least.
Lather up and rub-a-dub-dub, rub-a-dub-dub, rub-a-dub-dub.
Lather up and rub-a-dub-dub, for 20 seconds at least.
One more time before you're done, before you're done, before you're done.
One more time before you're done, now 20 seconds a piece.

Wash your hands regularly!
To keep from getting sick, washing your hands will do the trick!

Science: See Soap in Action!

Materials: pinch of black pepper, soap, and shallow dish filled with water

1. Add the black pepper "germs" to the water.
2. Children stick their fingers into the water.
3. Pepper "germs" will stick to fingers. Rinse fingers.
4. Children put fingers in soap before putting them in the bowl of "germs".
5. Have the children watch as the "germs" scatter away from the soap.

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This material was funded by USDA's Supplemental Nutrition Assistance Program - SNAP.
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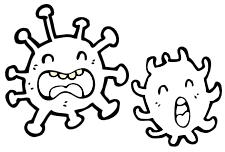
Carta Familiar:
Lavado de manos

Queridas familias,

Hoy, su estudiante aprendió la importancia de lavarse las manos regularmente por lo menos por 20 segundos. Cantaron la canción que mencionamos mas adelante mientras se lavaban las manos. Si se lavan las manos mientras cantan la canción completa, sus manos estarán limpias.

Estudios de salud muestran que lavarse las manos de forma regular, reduce el número de ausencias escolares por virus, resfriados, gripe y dolores de estómago en los niños.



¡Vamos a cantar esta canción juntos antes de comer con la melodía de "ruedas en el autobús"!

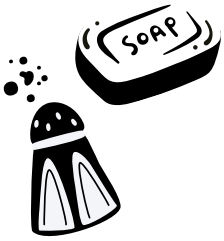
A lavarse, du ru ru du ru las manitas, du ru ru du ru
A lavarse, du ru ru du ru ¡Las manitas!
Con jabón, du ru ru du ru con jabón, du ru ru du ru
Con jabón, du ru ru du ru ¡Con jabón!
Restregando, du ru ru du ru las manitas, du ru ru du ru
Restregando, du ru ru du ru ¡Las manitas!
Enjuagando, du ru ru du ru las manitas du ru ru du ru
Enjuagando, du ru ru du ru ¡Las manitas!
A secarse, du ru ru du ru las manitas, du ru ru du ru
A sercarse du ru ru du ru, ¡Las manitas!

¡Lávese las manos frequentemente!

¡Para evitar enfermarse, lavarse las manos hará el truco!

Ciencia: ¡Ver el jabón en acción!

Materiales: pizca de pimienta negra, jabón y plato poco profundo lleno de agua



- Agregar la pimienta negra "gérmenes" al agua.
- Los niños meten los dedos en el agua.
- Pimienta "gérmenes" se pegará a los dedos. Enjuague los dedos.
- Los niños ponen los dedos en el jabón antes de ponerlos en el tazón de "gérmenes".
- Haga que los niños observen cómo los "gérmenes" se alejan del jabón.

SNAP-Ed
Division of Food & Energy Assistance

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