



HASTINGS PRINCE EDWARD
Public Health

Infectious & Communicable Diseases Curriculum Support Package

Grades K-6

July 2020

Purpose of this Resource

The purpose of this guide is to provide educators and schools with resources to integrate infection control in classrooms and to assist educators, school staff, vice-principals and principals with the enhancement of student learning and achievement by improving teaching practices.

Hastings Prince Edward Public Health has created the following support package to align with the Ontario Curriculum, Grades K-6: Health and Physical Education, Interim Edition (re-issued 2018). We would like to acknowledge Toronto Public Health, Canadian Red Cross and Ontario Public Health Units who worked on the original version.

For More Information:

Hastings Prince Edward Public Health
179 North Park Street
Belleville, Ontario K8P 4P1
Tel: 613-966-5500 ext. 349
Toll-free: 1-800-267-2803 ext. 349
Fax: 613-966-4363
hpePublicHealth.ca

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Contents

Objectives:	4
Interactive Activities:.....	4
Activity 1: Handwashing Video #1 for Elementary Students	4
Activity 2: Handwashing Video #2 for Elementary Students	4
Activity 3: Picture Review	5
Activity 4: Colouring Sheet.....	7
Activity 5: When is the best time to wash your hands?	8
Activity 6: Colouring Sheet.....	10
Activity 7: True or False	11
Activity 8: Keeping a Physical Distance	13
Activity 9: Word Search	14
Activity 10: Hand Washing Word Search	15
Activity 11: Complete the sentences.....	16
Activity 12: True or False	18
Activity 13: Classroom Discussion.....	20
Activity 14: Cross Germ Puzzle	22
Activity 15: How Clean Are Your Hands? (Glo-Germ)	26
Activity 16: How to wash your hands	27
Activity 17: How to apply hand sanitizer	28

Objectives:

- To educate students about the spread of germs.
- To increase the frequency of children using good hand hygiene.
- To improve hand washing techniques of students.

Interactive Activities:

Activity 1: Handwashing Video #1 for Elementary Students



Activity 2: Handwashing Video #2 for Elementary Students



For more videos, please visit our Infection Control in Schools web page:
hpePublicHealth.ca/infection-control-schools/

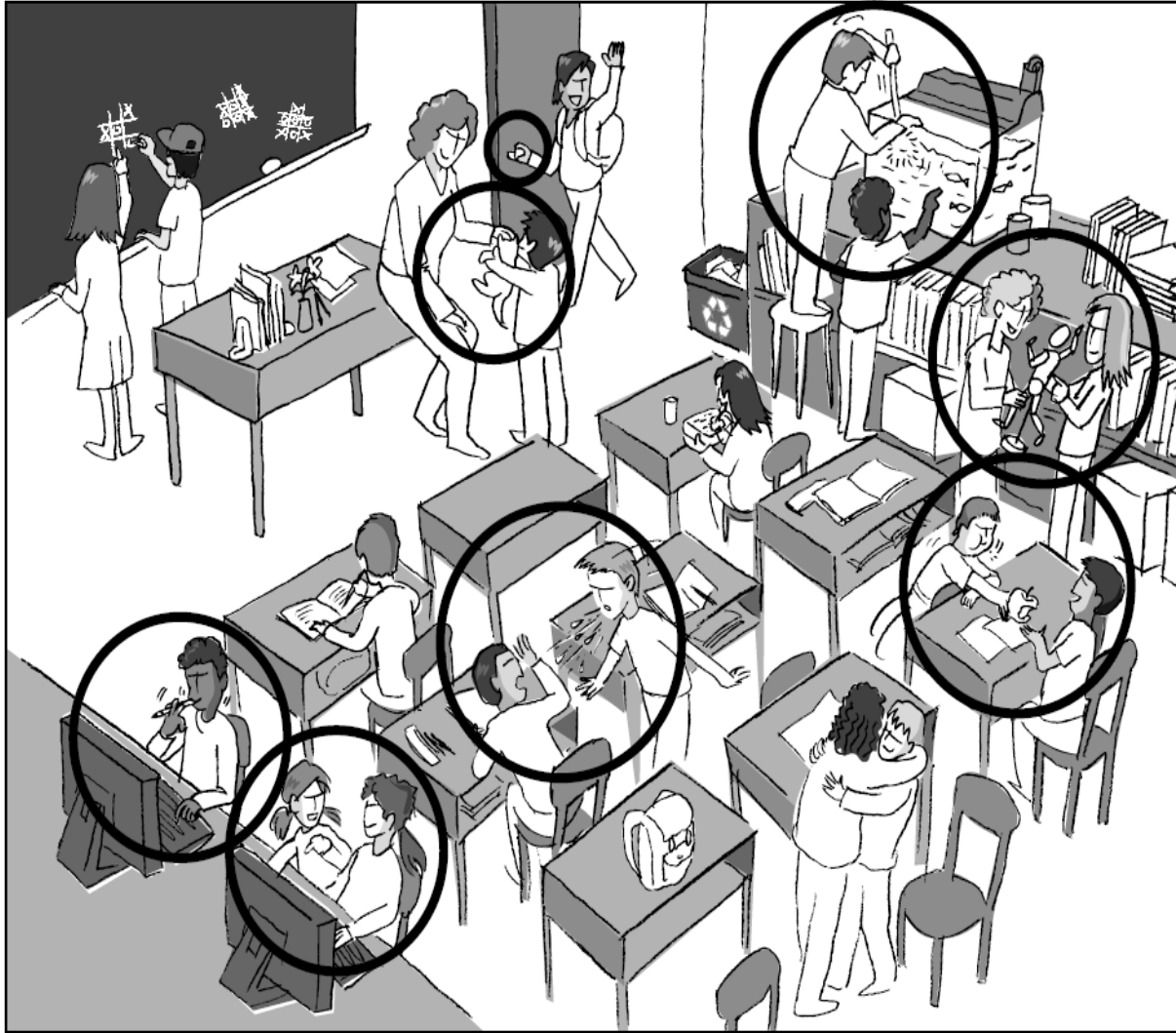
Activity 3: Picture Review

When is the best time to wash your hands?

Look at the picture below. Circle as many places you see where viruses and bacteria can hide.



Answer Key for Activity 3:



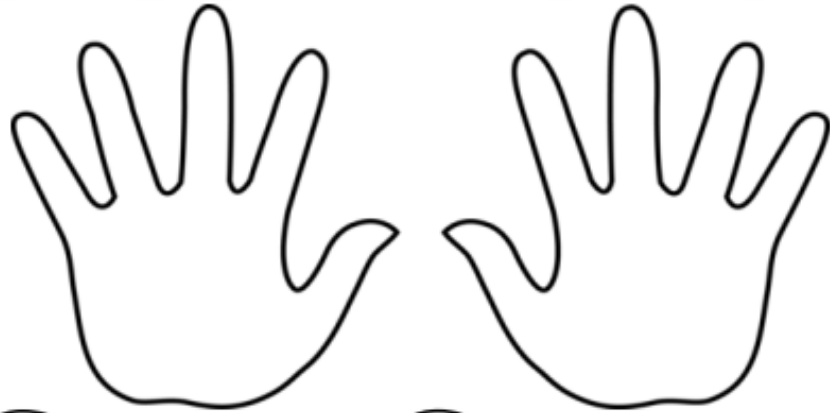
The eight areas that should be circled in the picture are the following:

1. One child is holding a doorknob.
2. One child is using a computer.
3. One child sneezing without covering his mouth with a tissue. Another child gets sneezed on.
4. One child sharing an apple with another one.
5. One child chewing on a pencil.
6. One child cleaning the classroom aquarium.
7. Two children sharing a toy.
8. Child and teacher playing with toy or pet (cat).

Activity 4: Colouring Sheet



Clean Hands



Stop Germs

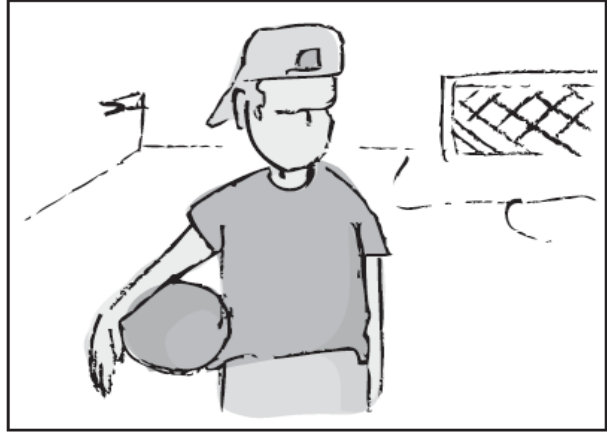


Activity 5: When is the best time to wash your hands?

Washing your hands – the best way to keep germs away! There are six (6) magic moments when you should wash your hands. Do you know what they are? From the pictures below, list the six magic hand washing moments.



1. _____



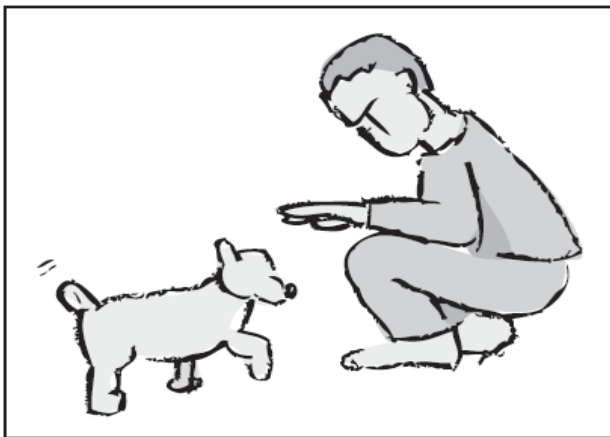
2. _____



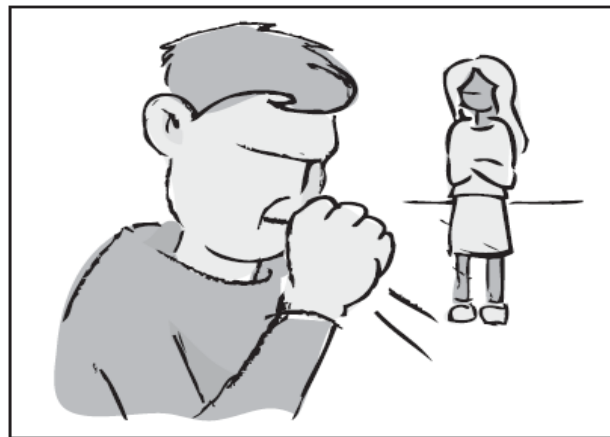
3. _____



4. _____



5. _____



6. _____

Answer Key for Activity 5:

1. Before and after eating
2. After playing (indoors or outdoors)
3. After going to the bathroom
4. After coughing and sneezing
5. After touching a pet
6. After being near someone who is sick

Activity 6: Colouring Sheet



Activity 7: True or False

Sentence	True	False
Germs travel through tiny droplets in the air.		
You can pass germs by kissing and touching another person.		
You cannot catch germs by shaking hands with another person.		
You can catch germs by touching toys, crayons, counter tops and desks.		
A healthy person cannot carry germs and pass them on to others.		
Germs in food and water can make you sick.		

Answer Key for Activity 7:

Sentence	True	False	Explanation
Germs travel through tiny droplets in the air.	T		Yes, they do. When you cough or sneeze, germs travel in the air from your mouth and nose in tiny droplets.
You can pass germs by kissing and touching another person.	T		Germs live in your mouth, nose and eyes – your mucous membranes. When you touch or kiss someone, you can share your germs.
You cannot catch germs by shaking hands with another person.		F	Germs can travel from eyes, nose and mouth – your mucous membranes to your hands. If you shake someone’s hand without properly washing, you can share your germs with another person. Viruses, like the influenza virus, can live on your hands up to 5 minutes!
You can catch germs by touching toys, crayons, counter tops and desks.	T		Germs are everywhere. They even live on your toys. That is why it is important to disinfect them regularly.
A healthy person cannot carry germs and pass them on to others.		F	Everyone carries germs. Germs are everywhere. Some germs are good for us while others can make us sick.
Germs in food and water can make you sick.	T		Foods that are not safely prepared on clean surfaces, or are not properly cooked, can make you very sick.

Activity 8: Keeping a Physical Distance

What is physical distancing?

In order to keep yourself and others as healthy as possible, it is important to practice measures that will contribute to that effect. One of those measures is called physical distancing.

Physical distancing refers to methods to reduce the frequency and closeness of contact between people.

Question: Can you think of examples where you should practise physical distancing? To get you started, here are some examples. Can you think of others?

1. **At the shopping mall**
2. **At the library**
3. **At a restaurant**
4. _____
5. _____
6. _____
7. _____
8. _____

Activity 9: Word Search

Hand Washing

B G F G K C G H B J
A S H V H L H W H Z
T I O D L E Y A Y T
H N H R W A G X M U
R K E I A N I T V T
O I A N T G E R M S
O D L S E Q N V V D
M V T E R Y E U P A
P Z H E S O A P M E
G S M S C R U B P F

CLEAN BATHROOM GERMS HEALTH
HYGIENE RINSE SCRUB SINK
SOAP WATER

Activity 10: Hand Washing Word Search

GERMS

DISEASE

SOAP

WASH HANDS

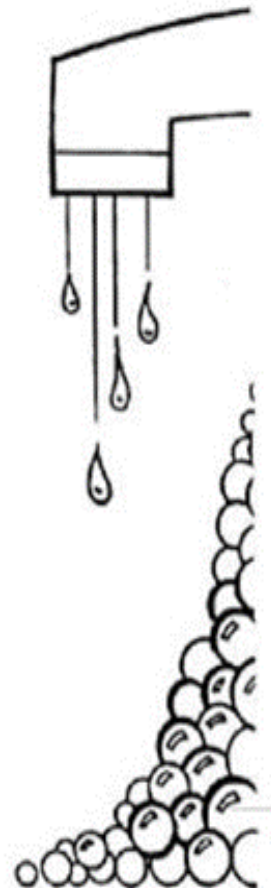
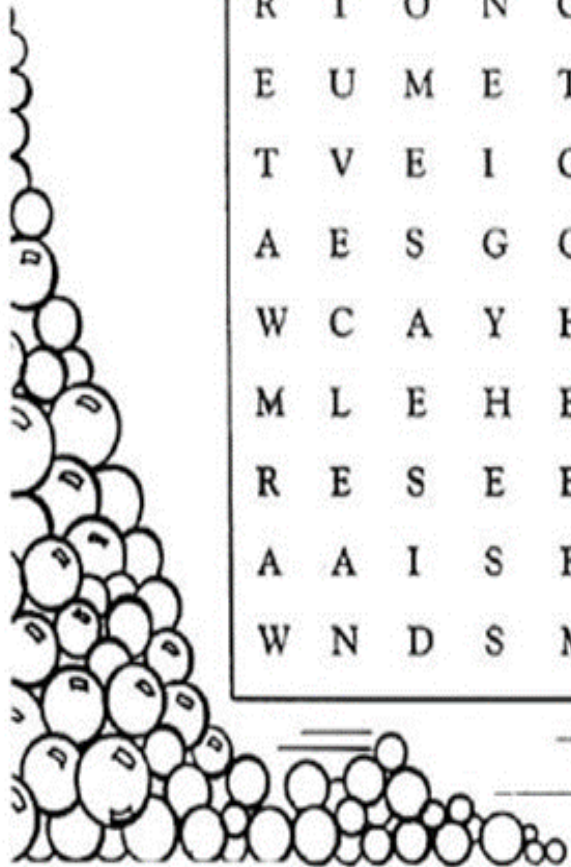
WARM WATER

HYGIENE

CLEAN

HEALTH

O	Z	S	E	I	M	J	K	I
R	T	O	N	C	P	A	O	S
E	U	M	E	T	X	B	D	T
T	V	E	I	G	Q	N	I	V
A	E	S	G	O	A	F	C	H
W	C	A	Y	H	B	P	X	R
M	L	E	H	E	A	L	T	H
R	E	S	E	B	U	R	K	O
A	A	I	S	F	F	B	L	M
W	N	D	S	M	R	E	G	N



Activity 11: Complete the sentences

Read the following sentences below and together fill in the blank spaces with the following list of words:

Words to choose:

Tiny

Cold

Microscope

Disease

Air

Important

Plants

Bacteria

Heat

Viruses

Living

- a) Germs are _____ organisms that are too _____ to see without a _____.
- b) Germs live everywhere: in the _____, in the soil, on _____ and in the water.
- c) Some germs live happily in searing _____, while others can hibernate in the freezing _____.
- d) Some germs cause _____ in humans, plants and animals. Others are _____ for a healthy life, and we could not exist without them.
- e) Germs are divided in several groups. Here are the three most common ones: _____, _____ and fungi.

Answer Key for Activity 11:

- Germs are **living** organisms that are too **tiny** to see without a **microscope**.
- Germs live everywhere: in the **air**, in the soil, on **plants** and in the water.
- Some germs live happily in searing **heat**, while others can hibernate in the freezing **cold**.
- Some germs cause **diseases** in humans, plants and animals. Others are **important** for a healthy life, and we could not exist without them.
- Germs are divided in several groups. Here are the three most common ones: **bacteria**, **viruses** and fungi.

Activity 12: True or False

	TRUE	FALSE
1. Germs can live on surfaces like tables and doorknobs.	T	F
2. After washing your hands, turn off the taps with a towel or your sleeve.	T	F
3. Germs can easily be spread when hands are not kept clean.	T	F
4. Using a hand sanitizer before eating or after coughing, sneezing or blowing your nose helps to reduce the spread of germs.	T	F
5. Five seconds is enough time to clean your hands.	T	F
7. Hand sanitizers get rid of all peanut products on your hands.	T	F
8. Towels are not needed when using hand sanitizers.	T	F
9. Hand sanitizers should be used on visibly dirty hands.	T	F
10. The most important thing we can do to keep from getting sick and spreading germs to others is to clean our hands often.	T	F

Answer Key for Activity 12:

1. Germs can live on surfaces like tables and doorknobs. T F
2. After washing your hands, turn off the taps with a towel or your sleeve. T F
3. Germs can easily be spread when hands are not kept clean. T F
4. Using a hand sanitizer before eating or after coughing, sneezing or blowing your nose helps to reduce the spread of germs. T F
5. Five seconds is enough time to clean your hands. T F
6. Soap is a necessary part of handwashing. T F
7. Hand sanitizers get rid of all peanut products on your hands. T F
8. Towels are not needed when using hand sanitizers. T F
9. Hand sanitizers should be used on visibly dirty hands. T F
10. The most important thing we can do to keep from getting sick and spreading germs to others is to clean our hands often. T F

Activity 13: Classroom Discussion

1) What are germs?

Answer: Germs are tiny living organisms that can't be seen with our eyes alone. Some germs are important to our bodies – they help us grow and stay healthy. Some germs can cause disease and make us very sick.

2) There are many types of germs. What are the three most common types of germs?

Answer: The three most common types are bacteria, viruses and fungi.

a) Bacteria are simple one-cell micro-organisms that reproduce rapidly. Some produce poisonous waste products that cause illness and/or disease such as whooping cough or tuberculosis. When bacteria get into your body, they quickly start to multiply.

Some bacteria are beneficial and even necessary to human life. Others are also important in the production of foods like cheese and yogurt, and medication (antibiotics) like penicillin.

b) Viruses are among the smallest germs, much smaller than bacteria. Viruses infect the cells of living organisms and cause diseases. Some examples of viruses are: the mumps, measles, influenza (the flu), and chicken pox.

Many scientists do not believe viruses should be classified as living because they do not reproduce until they are inside a human or animal host. Once inside the body, however, they can reproduce by the millions, destroying healthy cells in the process. Unlike fungi and bacteria, viruses are not poisonous.

c) Fungi are plant-like organisms that live off of decomposing organic matter. They can be found in air, in soil, on plants, and in water. Like bacteria, some fungi are poisonous and can cause a fungal infection. Others are not harmful at all, such as mushrooms you can buy at the grocery store. Others have made our lives easier by being a host for the production of medicines like penicillin.

3) Germs (bacteria, viruses and fungi) can live several hours outside our bodies. An example is an influenza A virus (flu). It can live for 24–48 hours on hard non-porous surfaces; 8–12 hours on cloth, paper or tissue; or up to 5 minutes on hands!

4) Although certain types of bacteria and fungi can cause illness and disease, some bacteria and fungi are beneficial. In some instances, they are necessary to human life. Do you know of a good bacterium or fungi and why they are important to our health?

Answers:

- Acidophilus in yogurt
- Antibiotic medicines like penicillin

- Germs keep us healthy and play a large role on earth by making the air breathable, helping us digest food and supporting and protecting crops.
- Germs play a major role in creating many of the foods we love, such as cheese, yogurt and bread

5) Where do you they think bacteria and viruses are most likely to be found?

Answer:

Germs live everywhere. You can find them in air, on surfaces, in the soil and water. Some enjoy the heat and others can hibernate in the freezing cold. Germs can be found in and on plants, animals as well as our bodies.

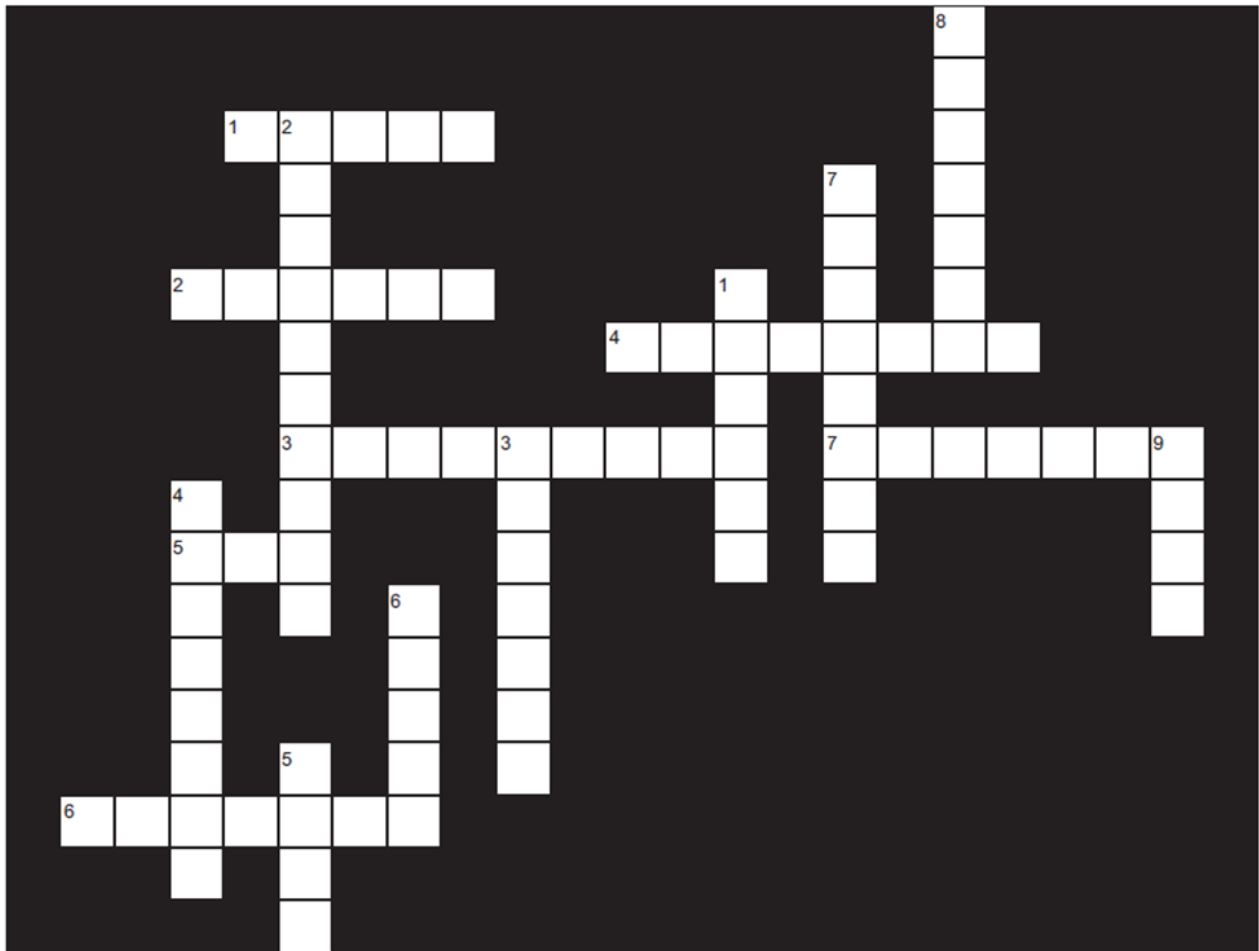
6) What are some ways you can help prevent illness and disease?

Answers:

- Eat healthy
- Regular exercise
- Proper hand washing
- Cough and sneeze etiquette (in sleeve or tissue)
- Go to the doctor for regular check-ups
- Get the flu shot or other vaccinations and booster shots for the measles or mumps
- Do not share food or drink with others
- Stay home when you don't feel well
- Stay away from others who are sick, or are not feeling well
- Take medication (and finishing the prescription)
- Avoid touching face without proper hand washing

Activity 14: Cross Germ Puzzle

Answer the following questions and place your answers in the “Cross Germ” puzzle below.



Words to choose from:

illness, several, air, sanitize, hand shake, poisons, multiply, body, skin, harmful, everywhere, virus, bacteria, period, germs

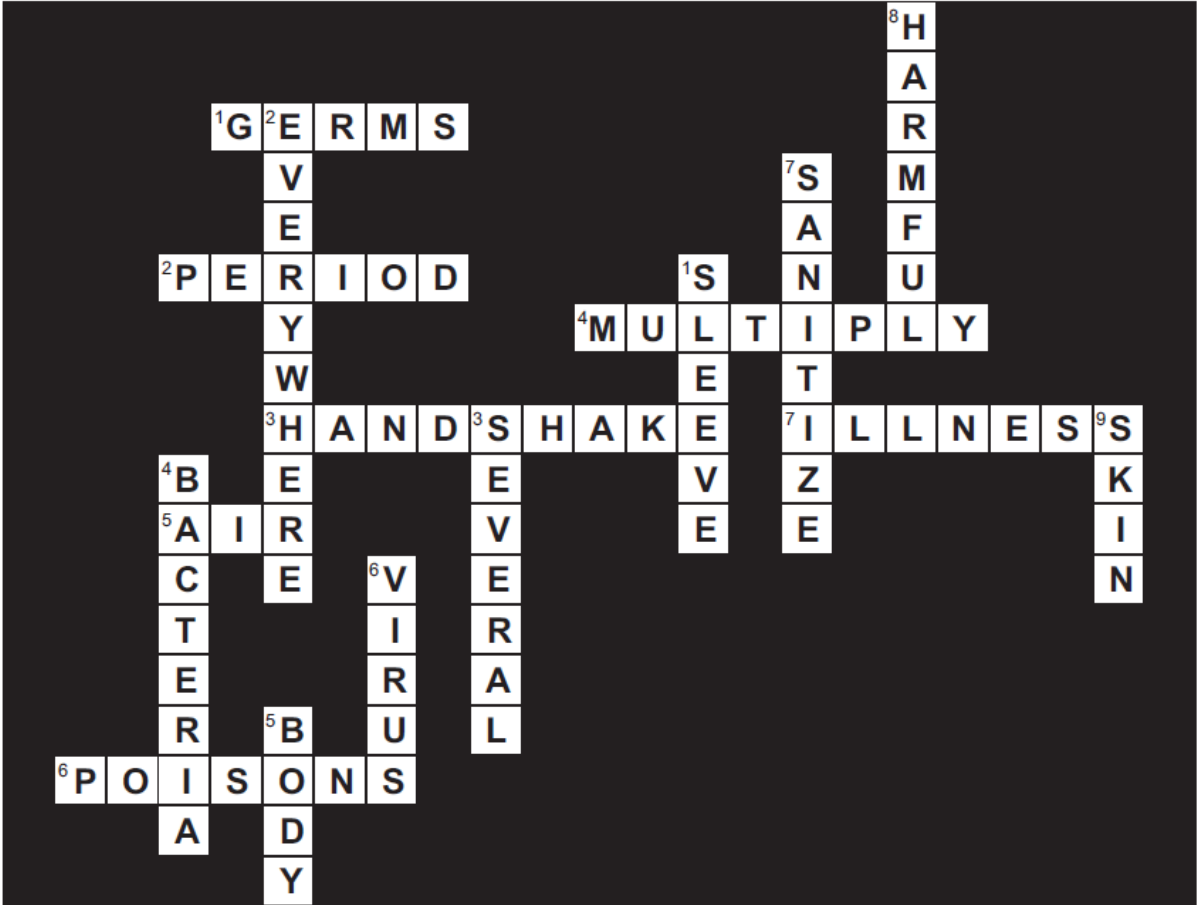
Across

1. _____ are tiny microbes that can make you sick.
2. 1,000 germs could fit across the _____ at the end of this sentence.
3. You can spread germs through a _____
4. When bacteria gets into your body, they quickly start to _____
5. Germs can spread through the _____
6. Like bacteria, fungi can give off _____ viruses do not.
7. When viruses and bacteria get in your body they cause an _____

Down

1. When you sneeze, it's best to cover your mouth and nose with a tissue or your _____
2. Germs can be found _____
3. Some germs can survive _____ hours outside our bodies.
4. _____ is a type of germ.
5. If you cut yourself, harmful bacteria or viruses can get into your _____
6. Which is smaller, a virus or a bacteria? _____ .
7. It's important to wash your hands with warm water and soap or _____ them often.
8. Not all micro-organisms are _____.
9. Your _____ helps to block germs from getting in your body.

Answer Key for Activity 14:



Across

1. **Germ**s are tiny microbes that can make you sick.
2. 1,000 germs could fit across the **period** at the end of this sentence.
3. You can spread germs through a **handshake**.
4. When bacteria gets into your body, they quickly start to **multiply**.
5. Germs can spread through the **air**.
6. Like bacteria, fungi can give off **poisons**; viruses do not.
7. When viruses and bacteria get in your body they cause an **illness**.

Down

1. When you sneeze, it's best to cover your mouth and nose with a tissue or your **sleeve**.
2. Germs can be found **everywhere**.
3. Some germs can survive **several** hours outside our bodies.
4. **Bacteria** is a type of germ.
5. If you cut yourself, harmful bacteria or viruses can get into your **body**.
6. Which is smaller, a virus or a bacteria? **Virus**.
7. It's important to wash your hands with warm water and soap and/or **sanitize** them often.
8. Not all micro-organisms are **harmful**.
9. Your **skin** helps to block germs from getting in your body.

Activity 15: How Clean Are Your Hands? (Glo-Germ)

There are several different ways of using the fluorescent products to demonstrate proper hand washing technique; use the method that works well for you. Please contact HPEPH to sign out a Glo-Germ Kit

Materials:

- Glo-Germ Gel
- UV Flashlight
- Hand washing facilities
- Soap
- Paper towel

Instructions:

1. Ask for 3 volunteers.
2. Apply fluorescent lotion/gel/powder to the hands of the 3 volunteers – small amount, about the size of a quarter, into the palm of one hand and spread over both hands as if applying hand lotion.
 - Ask one of the volunteers to wash their hands using lots of soap and water and NO friction (scrubbing/lathering), then remove soap under the water and pat hands dry with the paper towel.
 - Ask the second volunteer to wash his/her hand using NO soap, only water. Friction can be used, then dry hands with paper towel.
 - Ask the third volunteer to wash his/her hands as if he/she was a surgeon washing properly using a little soap and lathering (using friction) for at least 20 seconds. After that, rinse hands and dry well with paper towel.
3. When all three volunteers come back, shine the UV light/bar over the first volunteer's hands. Show the class, reminding them that this person only used soap and water and did not lather.
 - Shine the UV light/bar over the second volunteer's hands. Show the class, reminding them that this person did not use soap, only water and friction.
 - Shine the UV light/bar over the third volunteer's hands. Show the class, reminding them that person washed his/her hands the right way, using the right technique.
4. Ask the class why the last person hands are so much cleaner than the other two volunteers' hands (Answer: You need soap AND friction to physically remove microorganisms from the hands).
5. Go over the [six steps to washing hands](#):
 1. Wet your hands with warm water
 2. Gently apply soap to produce lather
 3. Rub for 15-20 seconds to remove germs
 4. Rinse away germs
 5. Dry your hands with a paper towel
 6. Turn off tap with a paper towel

Activity 16: How to wash your hands

How to wash your hands



Wash hands for
at least 15 seconds

1



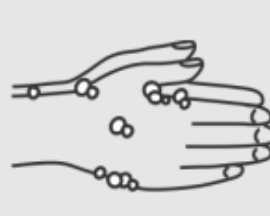
Wet hands with
warm water.

2



Apply soap.

3



Lather soap and rub
hands palm to palm.

4



Rub in between and
around fingers.

5



Rub back of each hand
with palm of other hand.

6



Rub fingertips of each
hand in opposite palm.

7



Rub each thumb clasped
in opposite hand.

8



Rinse thoroughly under
running water.

9



Pat hands dry with
paper towel.

10



Turn off water
using paper towel.

11



Your hands are now
clean.

How to use hand sanitizer



1




Apply 1 to 2 pumps of product to palms of dry hands.

2



Rub hands together, palm to palm.

3




Rub in between and around fingers.

4



Rub back of each hand with palm of other hand.

5



Rub fingertips of each hand in opposite palm.

6



Rub each thumb clasped in opposite hand.

7



Rub hands until product is dry. Do not use paper towels.

8



Once dry, your hands are clean.



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