

# 6<sup>th</sup> Grade

## Communicable Diseases

### SOL 6.1 E

Target: Students will learn how to prevent the spread of communicable disease



# Bell Ringer



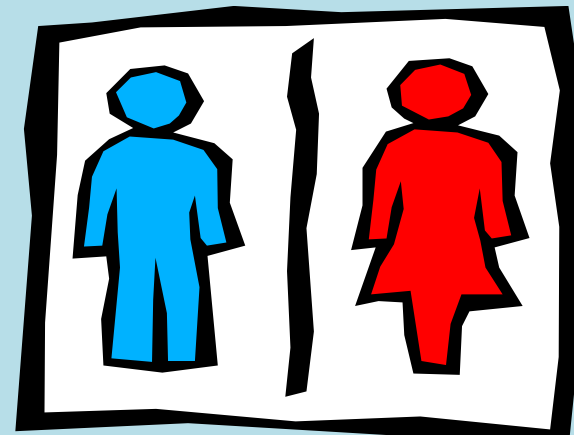
What could you do to help prevent the spread of communicable (spreadable) diseases? (ex. common cold)

Which do you think is a more effective way to dry your hands, paper towel or hand dryer? Why?



# Break Time

- Water
- Bathroom
- Sharpen Pencils



- **Communicable Disease**- disease that can be spread. ex. flu, mono, strep
- **Immune system**- a group of cells, tissues, and organs that fight disease.

Eat health and exercise to keep your immune system strong!



# What are germs?

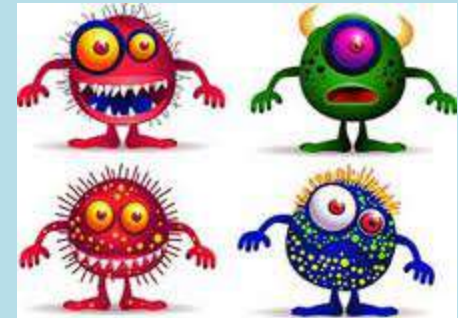


Germs are microbes. This means they are organisms so small that you can't see them without a microscope.

# Good vs. Evil

- *Some germs are good, like the ones in your stomach that gobble up bacteria.*
- *Other germs are bad. These are known as Pathogens.*

- **Pathogens**-germs that can cause communicable diseases.



- **Infection**- When pathogens (bad germs) enter the body and multiply, causing harm to the body's cells.



There are 4 types of germs. There are 2 that you need to know:

**Bacteria** –One celled organisms that live everywhere *ex. strep throat*

\*antibiotics may help

Examples of bacteria born illnesses:



Food Poisoning



Lyme Disease

# Strep Throat

- Sore throat caused by bacteria



## Symptoms

- Sore throat
- white patches
  - Fever
- Swollen lymph nodes





**Virus**-Smallest of germs. They take over healthy cells.

\*antibiotics won't help  
*ex. common cold, flu, AIDS*



How do we get rid of a virus?

**You Can't!**

The best line of defense is **PREVENTION**

**Vaccine**-a dead or weakened pathogen introduced into your body



*ex. Measles, Flu, Chicken Pox,*

# What kinds of diseases do viruses cause?



Chicken Pox

Cold



Flu

# How Germs are Spread (4 Ways)

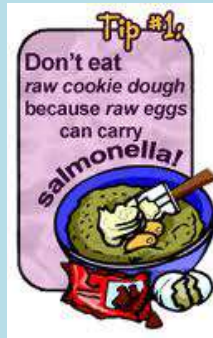
- **Direct contact** *ex. shaking hands with others*



- **Indirect contact** *ex. sharing utensils*



- **Eating or drinking contaminated food** *ex. food poisoning*



- **Contact with animals or insects** *ex. West Nile virus*



# Glo Germ Experiment



**Bust the germs that could make you  
sick!**

**Are you ready to find out our secret  
weapon?**

**\*Drum roll please...\***



# What is the Proper Way to Wash Your Hands?

1. Wet hands & wrists; add soap
2. Lather! Lather! Lather!  
Both sides of hands and wrists  
Between fingers and thumb; fingertips
3. Sing The Alphabet two times! (About 20 seconds)
4. Rinse well
5. Dry well



# Make sure to wash everywhere



Dry your hands using air dryers or a paper towel. If you use a paper towel, use it to open the door, and then throw it away.

# Billy Nye Hand Washing Song

The screenshot shows a Windows Internet Explorer browser window with the address bar displaying a YouTube URL. The browser's address bar contains the text: `http://www.youtube.com/watch?v=3ELmY7Fq4ts&feature=related&safe_mode=true&prstz_safety_mode=1&safe=active`. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The address bar also shows a search query: "ch is more effective, paper towel or hand dryer?".

The YouTube page displays the video player for "Bill Nye the Science Guy - 'Just Wash Your Hands'". The video player shows a close-up of hands being washed in a sink, with the text "DOSE OF SOAP 'JUST WASH YOUR HANDS' Soundtracks of Science Not That Bad Records" overlaid on the video. The video player controls show a progress bar at 0:01 / 1:01.

Below the video player, the video title "Bill Nye the Science Guy - 'Just Wash Your Hands'" is displayed. The video is by "Nye Tunes" and has 102 videos in the channel. The video has 76,339 views, 96 likes, and 3 dislikes. The video was uploaded on Jan 20, 2008. The description reads: "A couple years before 'Weird Al' officially made it cool to sing about germs, one hit wonder Dose of Soap dropped this bombshell. For those who don't remember the brief mid-80's Swedish invasion, this".

On the right side of the page, there is a list of recommended videos:

- Germs** by leasideoys (35,813 views, 2:07)
- Germs** by nckleodes (21,861 views, 25:42)
- Wash 'Em - Hand Hygiene Music Video** by Je HansonHecatal (158,795 views, 5:46)
- How many germs actually live on your hands?** by coastofanto (10,193 views, 3:08)
- Bill Nye the Science Guy episodes 22: Wind** by ZaidTsbR (5,060 views, 22:32)
- Food Safety Music - You'd Better Wash Your Hands - Animation** by Can Witter (116,531 views, 2:19)
- Hand Washing for Kids - Crawford the Cat - Educational** by chrissyolds (389,619 views, 5:02)
- "Wash Your Hands" Hygiene PSA** by Jsharps30 (11,483 views, 1:04)
- Physics songs** by nykardia (46 videos)

The Windows taskbar at the bottom shows the Start button and several open applications: "Pty Documents", "Bill Nye the Science ...", "Novel GroupWise ...", "Presentation1", "ethgrade Communic...", and "PowerPoint Side Sho...". The system tray shows the Internet icon, a volume icon, and the time 10:05 AM.



# Hand Sanitizer Gels

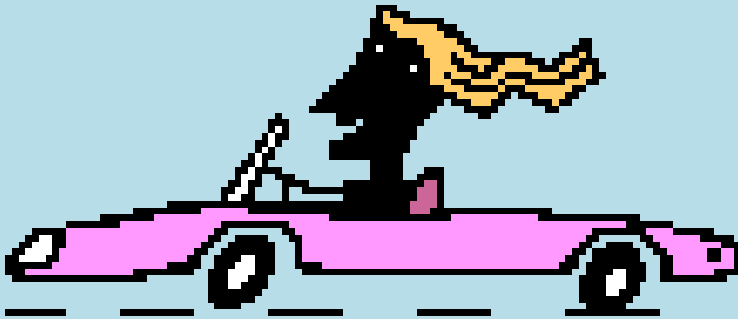
1. Apply one pump to hands
2. Rub hands together
3. Rub all surfaces
  - Both sides of hands & wrists
  - Between fingers & thumb
  - Finger tips
4. Keep rubbing until hands are DRY



# Don't send germs to other people!

## Fact:

A sneeze blows as fast as 100 MPH!



What should you do when you need to cough or sneeze?

# COVER YOUR COUGH OR SNEEZE!



# Do this?



# How about this?



# How's this?



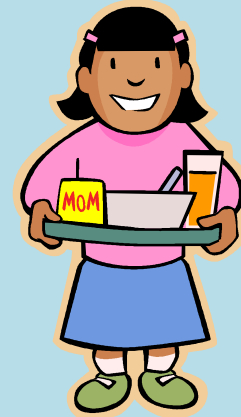
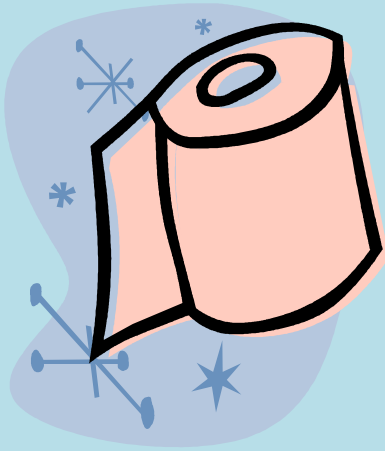
# Germ Buster Duties

## Cover up!

When you cough or sneeze, cover your mouth with a tissue or with the inside of your arm



# When do we need to wash our hands?







# POP QUIZ!!!

1. In what temperature of water is it best to wash your hands?
  - b. Cold
  - c. Warm
  - d. Hot
  
2. For how long should you wash your hands?
  - a. 10 seconds
  - b. About 20 seconds
  - c. One minute

SAFARI Montage: Play - Windows Internet Explorer

http://10.197.3.241/SAFARI/montage/play.php?keyindex=86451&location=005649&chapterskeyindex=261492

File Edit View Favorites Tools Help

SAFARI MONTAGE: Play

SAFARI MONTAGE Smart's Mill Middle DVD | log out

DASHBOARD SEARCH SUBJECTS STANDARDS PLAYLISTS MODULES PREFERENCES HELP

## Safety Smart Science with Bill Nye the Science Guy: Germs and Your Health

Media: Running Time: 20 min 51 sec Grades: 4 to 8

Disney EDUCATIONAL PRODUCTIONS

Bill Nye the Science Guy explains the science behind germs and overall health. Students will learn the difference between communicable and non-communicable diseases, how germs cause sickness and how to prevent the spread of germs.

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This title is part of 3 content packages.

Actions: PLAY ADD TO PLAYLIST PERMANENT LINK

### Chapters and Key Concepts

**Chapter 1: Introduction to "Safety Smart Science with Bill Nye the Science Guy: Germs and Your Health" (1 min)**

**Chapter 2: Germs and Communicable Diseases (5 min 22 sec)**

- A disease-causing germ is called a "pathogen," which comes from Greek words meaning "making disease", the human body is exposed to millions of germs every day; taking care of your body helps fight off germs. (1 min 6 sec)
- A communicable disease is infectious and can spread from person to person; communicable disease is the leading cause of sickness worldwide. (50 sec)
- A non-communicable disease is not contagious and cannot spread from person to person. asthma, hay fever, diabetes and tooth decay are examples of non-communicable diseases. (31 sec)
- Bill Nye uses green paint to demonstrate how germs are transmitted through direct and indirect contact. (54 sec)
- Bill Nye uses green paint to demonstrate how germs can spread through air, water and by touching a contaminated surface. (29 sec)

PROMETHEAN K12 EDUCATION TUTORIAL

Bookmark Video Segment

Start Point: 00:00:00 End Point: 00:01:00

Save to Playlist Preview Segment

Supplemental Teacher's Documents

[Standards for Virginia](#)  
[Quiz](#)  
[Teacher's Guide](#)

Done

Internet 100%

start Novell GroupWise - ... My Documents Communicable Disea... CommunicableDiseas... pandemic-germbuste... SAFARI Montage: Pl... 11:32 AM

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