SO GROSS!

WEBLINKS:
www.moh.govt.nz/influenza
www.sneezesafe.co.nz

FUN FACTS FOR STUDENTS

Why is 'the sneeze' the biggest culprit in the transmission of colds and flu?
Published medical journals confirm that the volume of virus particles produced by a sneeze is significantly greater than the volume produced by a cough or nose blow. And U.S. expert in infectious diseases, Dr Winkler Weinberg, maintains that a sneeze is capable of sending cold and flu virus particles at speeds of up to 320 kilometres an hour, a distance of up to 900mm, into the air for others to breathe. Dr Lance Jennings* was coinvestigator in an Antarctic study 30 years ago, testing the nature of cold and flu virus transfer.
The same 'Antarctic Hut Model' was used in 1986, involving 20 volunteers (8 cold-ridden) playing poker for 12 hours. The poker games ensured a consistent level of exposure to cold virus particles (i.e. via sneezes, coughs, nose-blows, laughing, singing and speaking), and a variety of surfaces. Hand to hand and surface contact was shown in the experiments to be less effective than air transfer in spreading live cold virus particles. However Dr Jennings believes that cold and flu hygiene for children should still include hand-washing, as their closer and more frequent contact makes the risk of transmission by contact higher.

**Independent New Zealand virologist and temporary advisor to the World Health Organisation.*

How do our bodies 'choreograph' a sneeze?
When the inside of your nose gets a tickle, a message is sent to a special part of your brain called the sneeze centre. The sneeze centre then sends a message to all the muscles that have to work together to create the amazingly complicated process that we call the sneeze.
Some of the muscles involved are the abdominal muscles, the chest muscles, the diaphragm, the muscles that control your vocal chords, and muscles in the back of your throat.
Don't forget the eyelid muscles! Did you know that you close your eyes when you sneeze?
It is the job of the sneeze centre to make all these muscles work together, in just the right order, to send that irritation flying out of your nose at high speed!!

Reviewed by John Gould, MD, January 2006 • Source: http://kidshealth.org/kid/talk/qa/sneeze.html

STUDENTS: IT'S TIME TO TEACH THOSE ADULTS TO BE SNEEZESAFE®

A Colmar Brunton survey(1) conducted in March 2008, profiled the state of cold and flu hygiene practice in New Zealand. These are the results:

- ***25%*** of New Zealand adults cleared mucus from their nose onto the ground at least sometimes.
- ***55%*** admitted to sometimes sneezing into the air for others to breathe.
- ***34%*** used their clothing, fingers or wrist to wipe a runny nose at least occasionally.
- ***12%*** of those who sometimes sneezed into their hands never washed them afterwards
- ***73%*** thought 'snot' was part of normal vocabulary in New Zealand.

(1) sample size: 716 respondents aged over 18

For more information:
email: *info@sneezesafe.co.nz*
ph: *0800 733 703*

Sneeze Safe® LESSON PLAN

AIM

Students will acknowledge and understand the importance of good hygiene practice in relation to colds and flu. They will learn how an unsafe sneeze spreads cold and flu viruses to others, and will be encouraged to use safe hygiene practices.

ACHIEVEMENT OBJECTIVES

STRAND A
Personal Health & Physical Development
• Personal Well-Being & Development • Attitudes & Responsibilities

STRAND D
Healthy Communities & Environments
• People & the Environment

The cold and flu hygiene messaging in the KLEENEX® SNEEZESAFE® lesson is supported by the Ministry of Health

LESSON PLAN

WARM UP – ACTIVITY 1

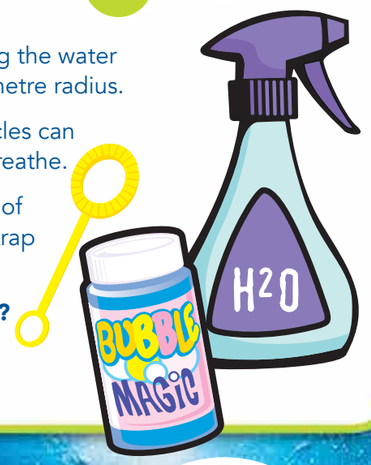
COLD & FLU VIRUS TRANSFER BY AIR

YOU WILL NEED:
Water spray bottle and bubble mixture

- The teacher fills an empty, clean spray bottle with water.
- The teacher simulates the spread of a sneeze by spraying the water into the air, reaching surfaces and people within a one-metre radius.
- The teacher creates bubbles to illustrate how virus particles can float in the air from an untrapped sneeze for others to breathe.
- The class learns that sneezing is the most prolific means of spreading cold and flu viruses and that people need to trap their sneezes effectively.

1. How many people and surfaces have water on them?

2. To what extent have the cold and flu virus particles spread through the air?



WARM UP – ACTIVITY 2

COLD & FLU VIRUS TRANSFER BY TOUCH

YOU WILL NEED:
Glitter

- Students simulate the spread of cold and flu virus particles, if hands are not washed straight after sneezing.
- One student wets their hands with water and keeps them damp so glitter sticks. (Alternatively, talcum powder on dry hands illustrates the same effect.)
- One student puts glitter on their right hand.
- The selected 'glitter' student shakes hands with 3 other people. Each of the 3 people shake hands with 3 others. Continue until all hands have been shaken.
- Students then investigate their hands and the surfaces they've touched, and learn how far cold and flu virus particles can spread by touch.

1. How many hands have glitter on them, even just one speck?

2. To what extent have the cold and flu virus particles spread by touch?

TEACHING MESSAGE

Even though only one person started out being 'infected' with a cold or flu virus in this simulated sneeze scenario, glitter and water spray will have 'infected' others, due to unsafe cold and flu hygiene practice. Cold and flu viruses can spread by touch, or even more effectively by air, they are invisible, and they can remain active for more than an hour.

ACTIVITY 1

THE ART OF THE AHHH-CHOOO!!

- **Students use the KLEENEX® TISSUES SNEEZESAFE® website *www.sneezesafe.co.nz* and other sources to learn about the science of sneezes e.g. how many virus droplets are produced by a sneeze, how far and fast they travel, how long cold and flu viruses remain contagious, and which muscles are used to execute a sneeze.**
- **Explain and discuss the science of sneezing and the safest ways to sneeze.**

1. The safest way to trap a sneeze is with a tissue. Bin the used tissue straight after sneezing.
2. Another safe way to trap a sneeze is with your hands cupped over your mouth and nose, as long as you wash your hands straight after sneezing into them.
3. The third option is to sneeze into the inside of your elbow. This sneeze at least stops virus particles from entering the air for others to breathe, but the particles can still spread by touch.

ACTIVITY 2

TRAP IT! WASH IT! WATCH IT!

- **Watch the online movie at *www.sneezesafe.co.nz* and discuss. Write questions on whiteboard.**

1. How do sneezes have the potential to spread colds and flu?
2. What are the 4 key things to remember when sneezing to prevent the spread of cold and flu viruses?
3. What could happen if no one in the community followed these key things?
4. What can you do to pass on the message about sneezing safely to others in your community, school and family?

Your class might like to visit *www.sneezesafe.co.nz* and experience the KLEENEX® SNEEZESAFE® virtual sneeze or view the SNEEZESAFE® lesson brought to life by other schools.