

Super Sneezes

Learning Objectives

- There can be harmful microbes in your sneezes
- Microbes can travel through the air
- Microbes can spread to other people through your sneezes
- Sneezes can spread germs a long way
- If you sneeze into your hand you should always wash your hand afterwards
- Sneezing into a tissue, or into your sleeve if you have no tissue, is the best way to stop the spread of colds and flu germs

Materials

- 'Snot gun' – Spray gun
- Plastic face mask
- Green food colouring
- Wallpaper lining (or equivalent)
- Disposable Gloves (non latex)
- Kitchen roll or tissues
- Bin liner
- Jar of 'snot'
(provided by the e-Bug UK team)



Set Up

1. Set up the sneezing runway by placing white wallpaper along a table. Two tables may be pushed together to create a longer runway.
2. Fill the spray gun with water and add green food colouring.
3. Prepare a jar of 'snot' using the recipe

Please see the virtual Science Show video for an example of how this stand can be run:
<http://bsac.org.uk/science-fair//stands/giantsneezes/>

Super Sneezes

Instructions

This activity centres on the 'sneezing runway' which runs the length of the designated space. The activity demonstrates the importance of covering coughs and sneezes with a tissue to prevent the spread of microbes.

1. Ask the students if anyone knows why we sneeze. Explain that it helps our body get rid of microbes.
2. Ask if anyone knows what is in a sneeze. Show the children the jar of snot and explain that we produce 2 pints of snot every day.
3. Then ask how far they think a sneeze travels, this is 2-3 meters or the length of a double-decker bus, so if someone at the back of the bus sneezed, all those germs could hit the bus driver in the back of the head!
4. Hook the spray gun into the face mask and ask a volunteer to pull the trigger on the count of 3, whilst everyone joins in to say 'achoo!'.
5. Point out that the germs have spread everywhere, right to the end of the runway.
6. Ask what they would naturally do if they felt a sneeze coming on - put a hand over their mouth.
7. Demonstrate this by giving a glove to another volunteer and ask them to 'catch' the sneeze in their hand whilst a different volunteer sprays the gun and everyone shouts 'achoo!'
8. Show the glove to everyone and say how the harmful germs are now on your hand and could be passed to other people.
9. Dispose of the glove and do the demonstration again but covering the 'nose' with a tissue, asking for new volunteers if possible
10. Show how the tissue has captured all the germs and you can throw them away.



Giant Sneezes

What's in a Sneeze?

What is a Sneeze?

Sneezing is a way in which our body tries to get rid of all the bad bugs and dust. The bugs and dust get caught on the nose hair and tickle our nose. The nose sends a message to the brain which then sends a message back to your nose, mouth, lungs and chest telling them to blow the irritation away.

To Sneeze or not to Sneeze

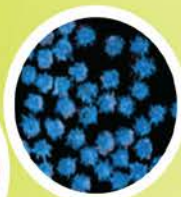
A sneeze can spread germs 2-3 meters or over 5ft at a speed of 100 miles per hour!

The sneeze contains a lot of horrible stuff, like water vapour, water droplets, and snot from your nose. This moisture and snot may be full of microorganisms, and some of those may be unhealthy ones. These bad microbes can be passed on to someone else through sneezing so it is very important to cover your coughs and sneezes. Remember that if you cover your mouth and nose with your hand you can still spread the flu germs to someone when you touch them! It's best to use a tissue or to sneeze on your sleeve.

Photos Copyright 2008
Giantmicrobes, Inc.



Streptococcus (strep throat) — Bacteria



Rhinovirus (flu) — Virus



Orthomyxovirus — Virus

How can our nose stop us getting ill?

We breathe in more than 20,000 litres of air a day mostly through our nose.

This air contains oxygen, nitrogen, dust and pollutants as well as lots of microbes. Some of these microbes may be harmful if they come from a cough or sneeze from someone around us. Coughs, colds and the flu are caused by bad virus microbes. As we breathe in through our nose, many of these microbes and other irritants get trapped in our snot and nose hair but some can make it into our throats and multiply making us ill.



Sneezing FACTS!

- The world record for sneezing was held by Donna Griffiths of Worstershire who sneezed for 978 days in a row.
- Some cultures think that sneezing is a sign of good luck — others think it's a sign of death.
- You cannot sneeze without closing your eyes.
- Its illegal to burp or sneeze in a church in Nebraska, USA.
- You produce 2 pints of snot every day and most of this you swallow without thinking.
- Some doctors use the colour of your snot to tell if you are ill.
- There are more than 200 cold viruses but only a few types of flu.
- Antibiotics will NOT cure the flu.

Sneezing FICTION!

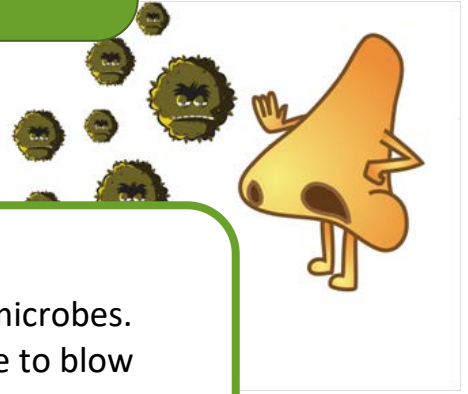
In the old days, people were very worried about sneezing - here are some of the things they believed:

- Your eyes will pop out if you keep them open when you sneeze.
- Your heart stopped when you sneezed.
- You can catch a cold by going out with wet hair.
- Your soul leaves your body when you sneeze.



Contact Primary Care Unit
cliodna.mculty@phe.gov.uk / vicki.young@phe.gov.uk
0300 422 5062 www.e-bug.eu

Super Sneezes Fact Sheet



Why do we sneeze?

Sneezing is a way in which our body tries to get rid of bad microbes. Germs and dust get stuck in our nose hair and so we sneeze to blow them away.

What is in a sneeze?

Sneezes contain snot and bad microbes. That is why it's important to cover our sneezes with a tissue or our sleeve (but never our hand), so we don't pass the bad microbes onto someone else.

Did you know?

Surprise your friends and family with these fun facts!

- ➔ Sneezes can travel at a speed of 100 miles per hour!
- ➔ Sneezes can spread microbes 2-3 meters.
- ➔ The longest sneezing spree was 978 days, a record set by Donna Griffiths of Worcestershire, England.
- ➔ It is impossible to sneeze without closing your eyes.
- ➔ It is illegal to burp or sneeze in a church in Nebraska, USA.



Super Sneezes Super Slimy Snot

Make your own snot!

Sticky, slimy snot in our nose traps microbes. This helps to stop bad microbes getting into our body and making us ill. Ask an adult to help you make your own snot using the recipe below.

To make your own snot, you will need:

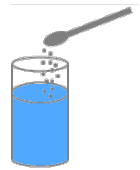
Ingredients

- PVA Glue
- Borax powder (this can be bought in the supermarket near the washing powder).
- Green food colouring (you will find this in the baking aisle of the supermarket)
- Water
- 2 disposable cups, labelled A and B
- A plastic spoon or stirrer
- A tablespoon
- Rubber gloves

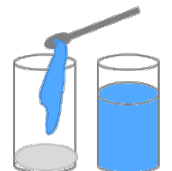
Method



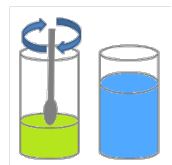
Put the gloves on. **Fill** cup A with water, and ask an adult to add a **spoonful** of borax powder to the cup. **Stir** to mix the powder and water.



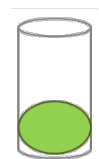
In cup B, **add** about an inch of PVA glue to the bottom of the cup, and **mix** with about three tablespoons of water. **Stir** to mix.



Add a few drops of green colouring to cup B and **stir** to mix.



Finally, add a **tablespoon** of the Borax solution (from cup A) to cup B, and **watch** the green **slimy** snot form! After about 30 seconds you can **play** with it!



You can play with the snot, but **do not** eat it!
Wash your hands when you have finished playing with the snot.
It will last a few days if you keep it wrapped up in cling film.

Super Sneezes Wordsearch

Can you find all the sneezy words in the word search below? Remember that the words can be horizontal (across), vertical (down) or diagonal (top left to bottom right).

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

SNOT

BUGS

VIRUS

COUGH

COLD

SNEEZE

FLU

BACTERIA

GERMS

