Time	Audio	Visual
0:00-0:03	No audio	"Respiratory Hygiene: Snot Gun
		Runway"
0:04-0:33	We are going to explore the	Teacher is stood at the front of a
	importance of proper respiratory	classroom, involving the students
	hygiene, teaching students to catch it,	in a class discussion. Students
	bin it, and kill it using our highly	are contributing to the discussion
	popular snot gun activity. This is	by raising their hands and
	available in the key stage one, two	answering questions.
	and three lesson plans on respiratory	
	hygiene available at <u>www.e-Bug.eu</u> .	
	The lesson plans contain some useful	
	discussion points that can encourage	
	students to explore what they know	
	about respiratory hygiene.	
0:34-0:46	"Say we cough then the germs from	One student is speaking directly
	our throat would come out and it'd be	to the camera
	everywhere, unless you cough into a	
	tissue, folded it and throw it away and	
	then wash your hands. Then there	
0 47 0 50	Wouldn't be much trace of germs."	
0:47-0:56	"If you have a tissue or you sneeze	Another student is speaking
	Into your sleeve, then it won't get as	directly to the camera
	iar as if you just let it, you just sneeze without protocting it with onything"	
0.57 1.05	To set up this activity, join tables	The teacher sets up the activity
0.57-1.05	together to form a runway, and cover	by laving down a large sheet of
	them with flinchart naner. Place rulers	naper across joined up tables to
	along one side of the runway	make a runway and the students
	along one olde of the farway.	are lined up either side of the
		runway
1:06-1:17	Fill a pump action spray bottle with	The teacher is holding a spray
	water, and a drop of green food	bottle filled with water, with a
	colouring to make your snot. You can	Shrek mask placed over the top
	cover the spray bottle with a	of the nozzle through the mouth
	character mask to represent the	hole so that the water can be
	sneezer.	sprayed through.
1:18-2:03	While teaching students about the	The teacher is explaining the
	importance of covering coughs and	activity to the students whilst
	sneezes, this lesson also	setting up the equipment, and the
	incorporates elements of scientific	students are engaging and asking
	working by asking students to make	questions.
	predictions, record observations and	
	compare measurements. I o start the	
	activity, introduce the concept of	
	Coughis and sneezes to students.	
	which our body trice to get rid of any	
	which our body thes to get he of any	
	namiul micropes and particles.	

	Harmful microbes can cause disease. When we sneeze we can spread microbes, including harmful ones, to others. Introduce the character or spray bottle as the sneezer. Ask students to discuss how far they think its sneeze might travel, making predictions on both the length and width of the sneeze.	
2:04-2:13	These can be recorded on the worksheet provided with each of the lesson plans. Students can also place a sticky note on the runway to show their guess for where the sneeze will land.	The students each place a sticky note on the paper based on how far they think the sneeze will travel, they are discussing their choice with each other.
2:14-2:28	Ask one student to act as the sneezer pulling the trigger on the spray bottle, whilst the rest of the class observes how far the sneeze travelled when it is not covered. "It went on mine" "It went all the way back there!"	One student stands at the end of the runway with the spray bottle, and sprays the liquid over the paper. The students discuss the outcome of the spray.
2:29-2:37	Students should notice that some of their sticky notes are covered in snot. Students can measure how far the snot spray reached and record their observations.	The sticky notes, each signed by a student and stuck to the paper, have drops of water over them from the spray.
2:38-2:45	The students can now make a new prediction of how far and how wide the snot might go when the sneeze is covered by a hand.	The students each place a new signed sticky note along the runway, and a new student has the spray bottle ready to be the next sneezer.
2:46-2:59	The students should observe that the hand blocked the sneeze from travelling so far, however, they should also observe that the hand covering the sneeze is now covered in snot.	Another student, wearing a plastic glove, holds their hand over the nozzle of the spray bottle to simulate catching a sneeze in their hand, whilst the sneezer sprays the bottle.
3:00-3:07	Students can discuss the fact that microbes in the snot are now on their hands and can now spread to other things they touch	The student catching the sneeze holds their hand out to show it covered in snot from the bottle.
3:08-3:14	"Look what's happening, it's spreading everywhere to everybody. She hasn't washed her hands yet."	The student places the snotty hand all over the other sticky notes on the runway, simulating the microbes spreading from person to person.
3:15-3:30	In the final part of the experiment, students observe the effects of	A new student places a tissue over the nozzle of the spray bottle

	sneezing into a tissue. Again, ask for volunteers amongst your students for one to act as the sneezer and for the other to hold a tissue against the mask.	whilst it is sprayed by the sneezer.
3:31-3:38	In this condition, they should notice that the sneeze is completely contained within the tissue, but that the tissue is now covered in snot.	The student holds the wet tissue with the sneeze contained.
3:39-3:53	Ask the students what to do with the snotty tissue and explain that it should be disposed of in the bin and the students should wash their hands. Finish by reiterating the importance of the phrase catch it, bin it, kill it.	The snotty tissue is shown to all of the students by the teacher, before being passed back to the student.
3:54-4:12	Students can record their observations on the worksheets provided. The resources also contain additional extension activities that can be used for this lesson, including quizzes and wordsearches, or students may want to create their own posters or catchphrases to emphasise the key messages.	All students are sat at their desks completing the worksheets within the lesson plan
4:13-4:32	Closing discussion points are included to consolidate the student's learning. "The hand caught most of it, not as much as the tissue, but it definitely caught more and it stopped it from going as far" "Even if you don't have a tissue and you just – using your hand isn't enough, you should always just wash your hands after"	Students are sat discussing the experiment outcomes around their table.
4:33-4:50	All of the resources, including a step by step guide for this experiment, worksheets, suggested extension activities, and discussion points can all be downloaded for free from our website. Visit <u>www.e-Bug.uk</u> to find out more.	"For the full lesson plan, extension activities, work sheets, answers, and much more visit the e-Bug website: <u>www.e-Bug.eu</u> "
4:51-4:57	No audio	"With thanks to Frith Manor Primary School, Ms. Abigail Symons and Magenta Class"