Stand up Disease

You are working for the centre of disease control. Your job is to produce a mathematical model for the disease, make predictions about how long it will take to spread and make comments on how good your predictions are.

Questions to discuss

* How long did it take to infect the class?
* How many people were infected at each stage? How would you describe this number sequence?
* What would happen in 3 people were infected at each stage?
* Can you make predictions for any **n**umber (n)? Can you produce a formula to make predictions?
* How many minutes to infect the whole school? (approx. 1000 students)
* What about the UK? (pop approx. 68 million)
* How about the world? (approx. 7 billion)
* Show your results on a suitable graph.

How good/ realistic is this model?

* What aspects tell us something useful about the spread of diseases?
* What parts of the model don’t make sense? Why?
* What improvements need to be made to the model?

Time is of the essence. You will soon be asked to report in with this data including reflections on how reliable this is in the real world.