

Name _____ Date _____

Worksheet 1.4

Model the spread of a disease

This model is a simulation of how diseases spread if there are no measures to prevent them.

You will need: sets of two different coloured stickers, a timer or stopwatch

Round 1: Choose a ‘spreader’ to stick a sticker of one colour on as many people as possible in 30 seconds. A person with a sticker is ‘infected’ with a disease. The other players should run around the room to avoid being ‘infected’.

After 30 seconds, count the number of ‘infected’ people with stickers, including the ‘spreader’.

Round 2: All the people with stickers now become new ‘spreaders’. They must ‘infect’ as many people as possible in 30 seconds. The other players should run around the room to avoid being ‘infected’.

At the end of the round, count the number of ‘infected’ people, including the ‘spreaders’.

Round 3: Give five of the ‘spreaders’ from Round 2 one of the other coloured stickers to stick on their arms. These players must now sit out of the game. Other players ‘infected’ in Round 2 should take off their stickers. Repeat Round 2, with players who still have stickers trying to infect as many people as possible in 30 seconds (except those learners who are now sitting out of the game).

Count the number of people with stickers, including the ‘spreaders’.

Record the results in a table.

Round	Number of ‘infected’ people
Start	
1	
2	
3	

- 1 a What do you notice about the results for Round 1 and Round 2?
Explain this observation.

b How many people were 'infected' at the end of Round 3? Say why this is so.

2 Imagine the first 'spreader' has the flu.

a How is flu caused?

b How is the disease spread in real life?

c What do you think the other colour sticker in the game represents?

Help sheet

Flu is a very common disease. Flu is spread mainly by tiny droplets made when people with flu cough, sneeze or talk. You can breathe in the infected droplets. Flu germs can live for two to eight hours on hard surfaces. That's why it's so easy to pick up flu germs without knowing it. You can get infected if you touch an infected door handle or light switch and then do something like rub your eyes or bite your nails.

People who have flu can help stop the disease spreading by staying home from school or work, coughing or sneezing into a tissue or wearing face masks.