

VIRAL CONTAGION



Lesson 3 Context

The situation is continuing to deteriorate and fast. It has been confirmed that someone carrying the virus is infectious for a period of up to a week. Previous predictions were that they only remained infectious for 1 day. The infection rate for each individual is thought to be the same as for the previous lesson.

The resources are designed so that the students will have to think about the best and worst case scenarios for the new revised outbreak. There are again some structured activities prepared. This task has become more complex as each person that becomes infected can infect people every day for seven days. The third animation highlights this very nicely.

The resources are designed so that this more complex problem is started with an infection rate of 2. This is important as the pupils will need to get the idea of the new scenario before moving on to a higher infection rate. The auto marking Excel spreadsheet could prove particularly useful for this lesson.

In this lesson the pupils will probably need to all work together to make sure the answers are correct as they go. For more able groups they may want to split the work between them for different infection rates.

There is also a list of questions for pupils to think about whilst they are preparing their presentation. The questions also relate to drawing comparisons from the first initial estimates of the same infection rates from previous lessons to the current estimates.

For example

- How much quicker do you expect the disease to spread now that the time that each person remains infectious for is an increased period of time?
- Do you think that the disease will have spread further geographically as a result of these revised infection rates?
- Is it realistic that someone will infect someone after the first day? Won't they be in bed trying to recover?
- How many more people do you estimate are infected now?
- The prepared activities are available as online activities and on paper so that all schools can take advantage of this resource regardless of their ICT capabilities.

The key activities are listed below:

- Sequence and Series tables for various infection rates
- Table to complete
- The students are encouraged to think about the key questions that are shown on the resource sheet before putting their presentation together so there is a real focus on communicating the key ideas.