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| **Topic** | Pathogens and disease | **Level** | GCSE (or any other course for students aged 11-16) |
| **Outcomes** | To model the spread of an infection through direct contact | | |

**Modelling the spread of an infection**

*Equipment needed for a class of 30 students:*



1. 29 test tubes 1/3 full with milk

2. One test tube containing 1/3 milk **and starch solution**

3. One plastic pipette in each test tube

4. 10 bottles of iodine solution with droppers

*How it works:*

The test tube with starch represents the infected individual. When students begin the activity each is given a test tube. The test tube represents bodily fluids. Students are then asked to move around the classroom and ‘exchange’ a small amount of fluid with another student. It is important that nobody in the class knows who the ‘infected’ individual is. After 5 exchanges the class is stopped and it’s time to get ‘tested’.

Students place a small amount of iodine into their test tube and then record whether they have been ‘infected’. Infected samples should turn blue/black due to the presence of starch.

This can then lead to a discussion about:

(i) transmission – how?

(ii) transmission – what?

(iii) speed of transmission

(iv) how can we stop infection?

(v) can we work out who the source of the infection was?