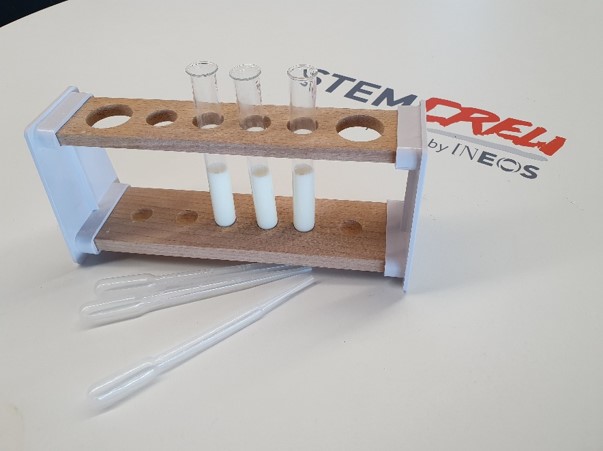
**Class Activity Teacher Notes - Modelling the spread of an infection**

**Introduction:**

In this is activity, students are given test tubes containing milk and then   
exchange ‘fluids’ with each other. One student is infected at the start as their test tube contains starch. After five exchanges the class is stopped and it’s time to get ‘tested’   
with iodine. The results then lead into a discussion about:

1. Transmission – how?
2. Transmission – what?
3. Speed of transmission
4. How can we stop infection?

**Aim:**

To model the spread of an infection through direct contact.

**Equipment:**

1. One test tube per student 1/3 full of 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:**

1. The test tube with starch and milk in it represents the infected individual, of   
   which there is only one in the group.
2. At the start, each student is given a test tube containing milk apart from one   
   student who has the test tube containing milk and starch. The test tube represents bodily fluids, (these could be airborne particles, saliva, semen etc)
3. Students move around the classroom and ‘exchange’ fluids by placing three to five drops of the fluid from their test tube into five other students test tubes.
4. It is important that nobody in the class knows who the ‘infected’ individual is.
5. After five exchanges the class is stopped and it is time to get ‘tested’.

**Testing:**

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:

* How did transmission occur and how many people were infected?
* Why were more than five people (or number exchanged with) infected?
* What would speed up transmission of an infection?
* How can we stop infection?
* Can we work out who the source of the infection was?