

Streak Plate Method

Microbiology / Lab. 5

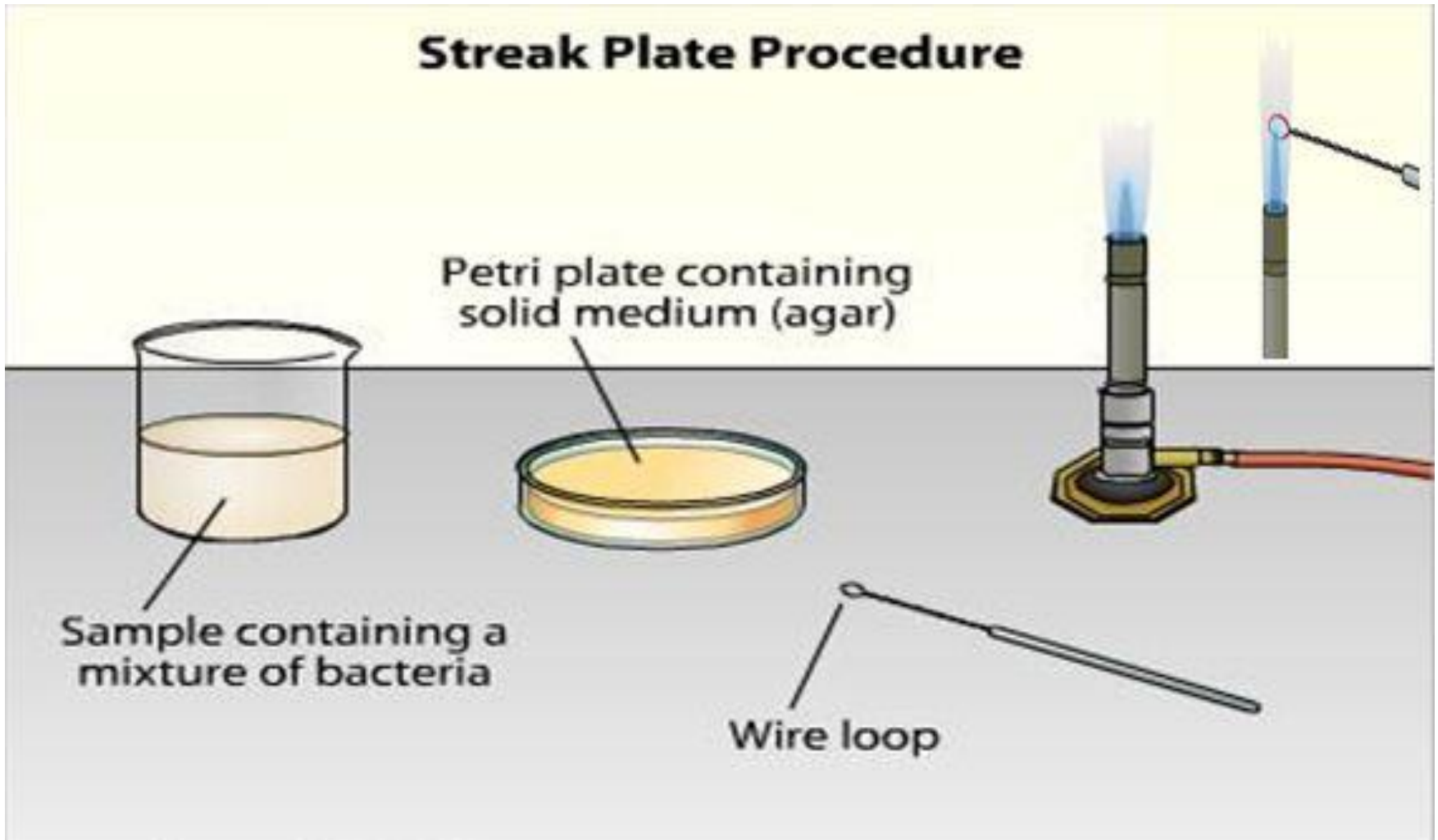
What is the streak plate method?

- **Streaking** is a technique used in microbiology for the isolation of single colonies of microorganisms, either from a mixed species or from the same species.

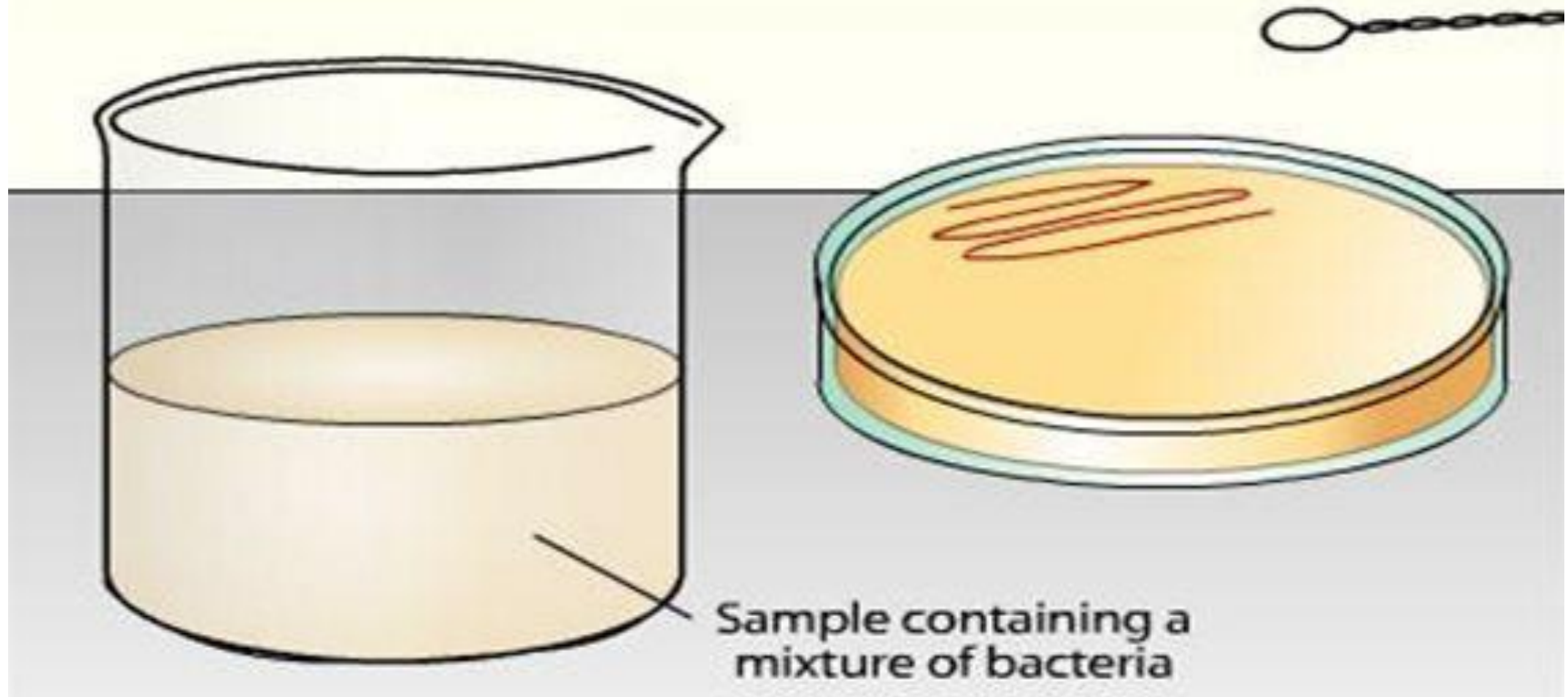
.The purpose of this method is to isolate pure colonies of bacteria. In other words, if you had a mixture of 2 or more bacteria in a suspension, you could separate them out.

- **The disadvantage** is that contamination is common with this technique. It could be improved by using **good aseptic techniques, no coughing on petri plate or talking above it.**

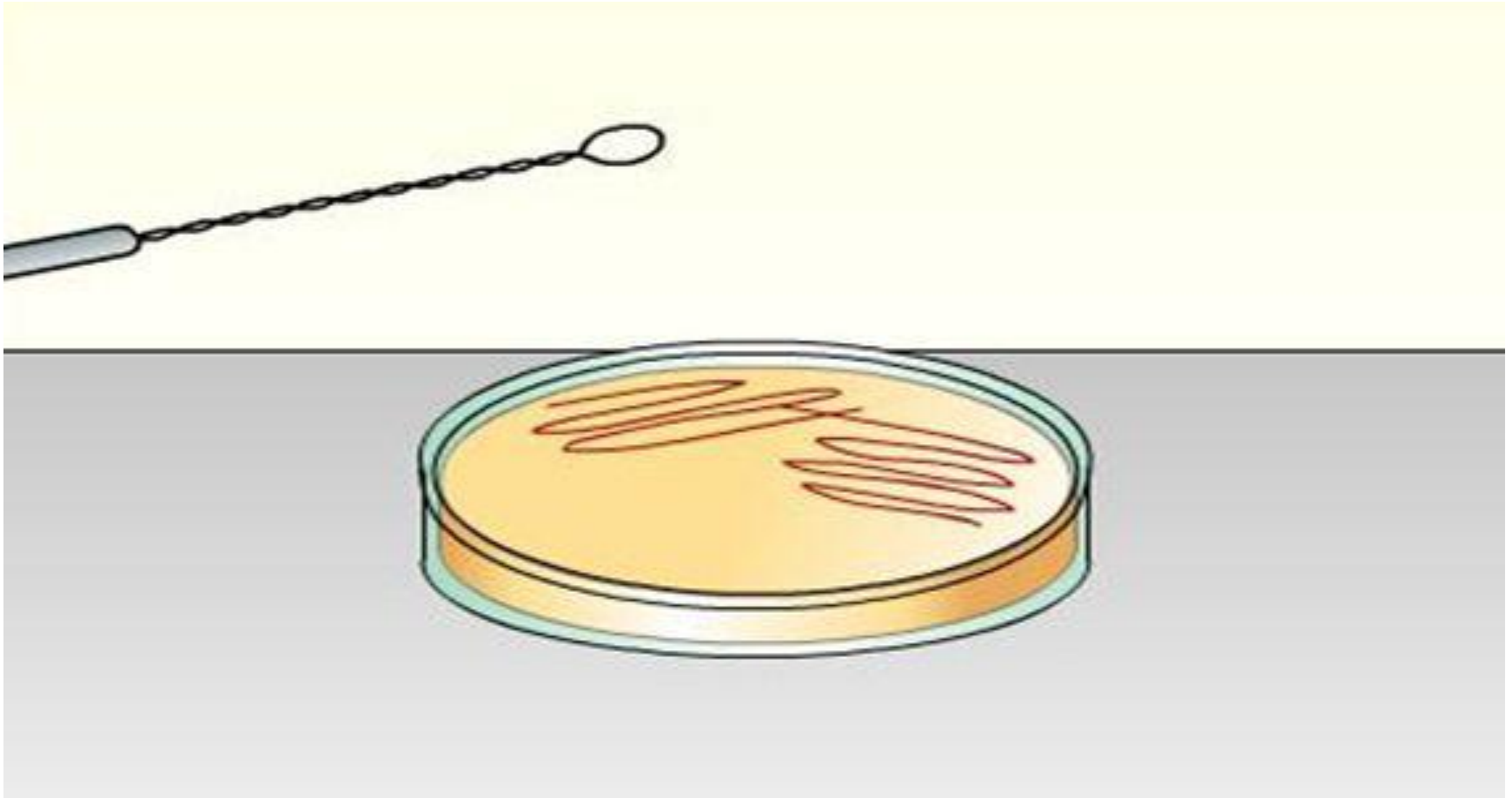
❖ **Pure culture:** are composed of only one species of bacteria or microorganism.



The method for isolating individual strains of bacteria from a sample is called the Streak Plate procedure, begins by **sterilizing a loop in a flame**.



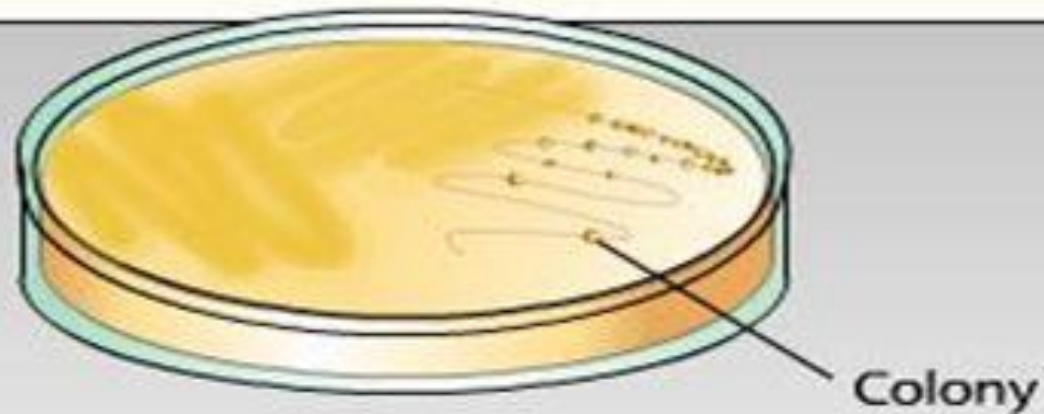
To **cool** the sterilized loop, touch it to sterile agar plate, then **put the loop into a sample** containing a mixture of bacteria then **spread** it over the surface of the agar.



Before continuing to streak the plate, the **remaining bacteria** on the loop are first **killed in the flame**. After **cooling** the sterilized loop, drags it through the previous path, **picking up a small number of bacteria** and **spreading** them into a new area of the plate .



After **sterilizing** and **cooling** the loop again, the procedure is repeated. With each **new path**, the loop picks up a **smaller number of bacteria**, and therefore can spread them farther and farther apart.



During the **incubation**, the bacteria **multiply** and produce colonies. Each **colony** consist of **millions of cells** derived from a single bacterium. The **isolated colonies** found in the last streak represent **isolated strains**.

