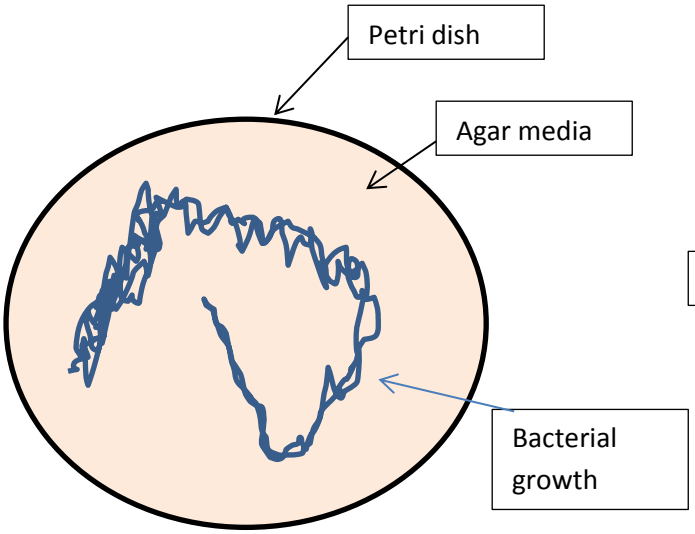
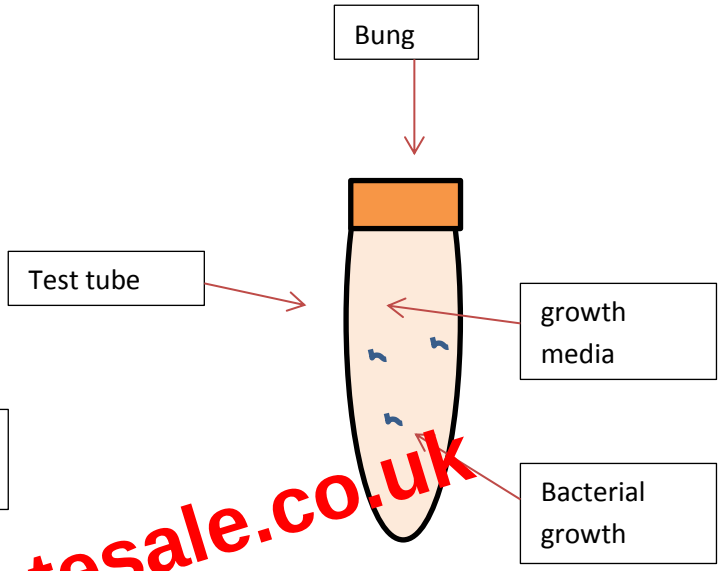
# Bacterial culture and Identification – Basics

All bacteria can be cultured and identified by using various tests and using certain growth medium

Bacteria can be cultured in two ways: a petri dish using agar gel or in suspension using a liquid media.



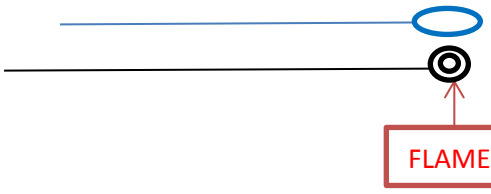






Bacterial culture on agar can be used for many uses such as antibiotic resistance and morphological identification (i.e. how it grows and its features)

Bacteria culture in suspension gives a clean and more efficient type of culture. This is using liquid medium and can quantify bacterial growth through spectrophotometry. This is not good for morphology or antibiotic susceptibility.

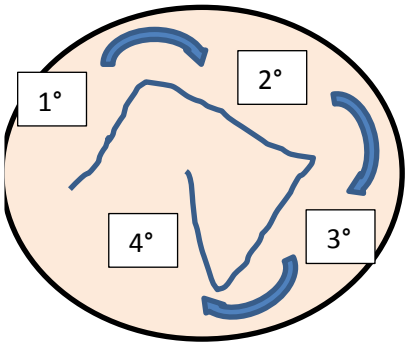
## Procedure to Agar culture:




1. A wire loop is normally used in culture – this is 'flamed' over a roaring flame to sterilise it. Cotton buds (blue) can be used as long as it's sterile when used.

2. Four inoculation sites are made by rubbing the loop/swab sideways through the pathway shown in the diagram on the right.

<u>Flame after every inoculation site</u>




3. Finally after incubation after 46-72 hours at 37°C – Bacterial colonies can form.

Incubation in either an aerobic (with oxygen) or anaerobic (no oxygen) condition will determine what bacteria can grow