

Bacteria Lab Procedure
The information in this procedure may be on your test!

Everyone must wash their hands before and after the lab.

NO ONE LEAVES A CULTURE PLATE UNATTENDED

PETRI DISH (Culture Plate) – Keep these shut until told otherwise. The smaller half of the dish is the bottom and contains a nutrient agar. The larger half is the top. Place your initials on the tape of the Petri dish after you collect and seal the dish.

AGAR – This is the substance made from a variety of nutrients and water. This is what your bacteria will feed on.

STERILIZATION – The Petri dish and agar have been sterilized.

- **STERILIZATION KILLS THE UNWANTED BACTERIA**

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BUNSEN BURNER – BE VERY CAREFUL, WEAR GOGGLES, AND DO NOT LEAN OVER THE FLAME.

COLLECTING SPECIMENS – If using an inoculating loop to collect the sample, heat the wire to a cherry red and then let air cool. Once the wire has cooled then drag the loop across the area to be collected. Use the swab only to collect places the wire could not be used.

HOLD BREATH – Do this just before opening the Petri dish. This is done to prevent you from breathing on the agar which would contaminate the agar.

OPEN DISH – While holding your breath open the Petri dish.

STREAK – As soon as you open the Petri dish wipe the inoculating loop or cotton swab across the agar in a streaking motion. THE AGAR IS IN THE BOTTOM, SMALLER PORTION OF THE PETRI DISH AND IS VERY SOFT. Do this step as quickly and carefully as possible.

CLOSE PETRI DISH – After you have streaked the agar close the dish and tape the EDGES shut. THE PETRI DISH WILL NOT BE OPENED AGAIN!

INCUBATION – Once the Petri dish is taped shut we will incubate the plates for 2-3 days. INCUBATION PROMOTES THE GROWTH OF BACTERIA.

LAB WRITE UP:

NAME: _____

GET YOUR PETRI DISH – DO NOT OPEN THE PETRI DISH!

Location Tested:	Bacteria (YES/NO)	Why do you believe there was or was not any bacteria?

- 1. Look at the bacteria in your Petri dish and list 2 reasons that may indicate you have a variety of bacteria.**
- 2. Why would the plates be sterilized before we collect?**
- 3. Name the 3 scientific names of bacteria and what geometric shape they are.**

Scientific name	Geometric shape

- 4. What is the term for the major way bacteria reproduce?**
- 5. Name three ways that bacteria may show genetic recombination?**

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- 6. What is the definition of an endospore?**
- 7. What is the definition of an antibiotic?**
- 8. Will an antibiotic be effective on a viral disease?**