

## The Use of Alcohol as an Antiseptic

Materials:

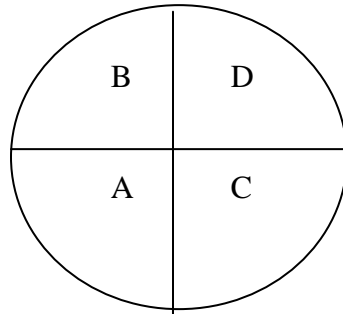
Veal Infusion Agar Plates  
Alcohol swabs  
Alcohol in a petri dish for dip  
Purell

Procedure:

### Day 1:

Don't wash hands prior to the exercise.

1. Divide plate into 4 quadrants. Label the bottom of the plate. When looking at the plate from the top side, it should look like the diagram below.



2. Press thumbs on plates in the following process:
  - a. Left thumb on surface of A quadrant.
  - b. Left thumb on surface of B quadrant.
  - c. Right thumb on surface of C quadrant.
  - d. Disinfect Right thumb with one of the following treatments:
    - Swab-scrub thumb thoroughly, let air dry
    - Dip-dip thumb in alcohol for 5 seconds, let air dry
    - Purell-rub thoroughly with gel, air dry
  - e. Press Right thumb onto surface of D quadrant.
3. Incubate plates at 37°C for 24-48 hours.

**Day 2:**

Calculate Percent reduction in colonies by counting the number of colonies in each quadrant and applying the numbers to the following equation (if there is an increase from the first to the second press the % reduction is 0). For each thumb press –

$$\% \text{ reduction} = \frac{(\# \text{ of colonies of the 1}^{\text{st}} \text{ press}) - (\# \text{ of colonies of the 2}^{\text{nd}} \text{ press})}{(\# \text{ of colonies of the 1}^{\text{st}} \text{ press})} \times 100$$

Fill in the following chart with the class's data:

Classroom Data Chart:

Left Thumb (Control) % reduction	Right Thumb Alcohol Dip % reduction	Right Thumb Alcohol Pad % reduction	Right Thumb Purell % reduction
<b>Average=</b>	<b>Average =</b>	<b>Average=</b>	<b>Average=</b>