Microbiology Lab
Morphological Study of Bacterium

Growth on **nutrient agar slant** – Describe the following:

1. **Color** – most will be white or buff colored, however some produce pigments in orange, yellow, etc.
2. **Opacity** – the more opaque, the more the bacteria grew. Record your growth as *opaque, transparent* (you can see through it), or *translucent* (partially transparent)
3. **Form**
   - a. Filiform – uniform growth along the line of inoculation
   - b. Echinulate – Growth margins appear toothlike
   - c. Beaded – separate colonies grow along the line of inoculation
   - d. Effuse – Growth is thin, veil-like, and unusually spreading
   - e. Arborescent – branched, teethlike growth
   - f. Rhizoid – rootlike appearance

Growth in **nutrient broth** – Describe the following

1. **At the surface** – be sure to **review Fig 40.2**
   - a. Ring – grows in a ring around the margin of the test tube
   - b. Pellicle – grows as a thick skin at the surface
   - c. Flocculent – small masses are floating at the surface
   - d. Membranous – grows as a thin skin at the surface
2. **Subsurface** – floating in the broth
   a. Turbid – cloudy growth
   b. Granular – small particles
   c. Flocculent – small masses
   d. Flaky – large particles
3. **Sediment** – at the bottom of the broth
   a. Granular – small particles
   b. Flocculent – small masses
   c. Flaky – large particles
   d. Viscid – sticky when prodded

**Growth in a gelatin stab culture.**
   a. Record whether the bacteria liquefied the media or not
   b. Record type of growth as seen below:

**Growth on a Petri dish** – Describe the following:
1. **Colony Morphology** (shape):
   a. Elevation
   b. Margin
   c. Configuration
2. Also include the following:
   a. Colon color
   b. Surface characteristics (dull or shiny)
   c. Consistency (dry, butyrous-buttery, or moist)
   d. Optical properties (opaque or translucent)