Review of the Microscope

By. Maryann Vanciel, CVT

Microscope Placement

- Placed in a location where it does not have to be moved frequently.
- It needs to be on a level surface
- Face microscope away from windows avoiding direct sunlight

Key Factors

- Cover scope when not in use.
- Always make sure to turn objectives to lowest power before removing slide.
- Always remove oil from lens.
- Use lens paper only!!!!

Microscope Anatomy

- Stand- consists of arm and a base
- Arm- supports the lens system and supports the stage which holds the slide
- BASE-contains the light source
- LENS SYSTEM-
  - (Eyepiece) monocular/binocular
  - Magnifies by a power of ten (10X) or ten times the actual size!!!!

Microscope Anatomy

- STAGE – holds the slide
  - Moves up and down to focus or is stationery and objectives move up and down.
- LIGHT-travels through slide into objective lens, then to eyepiece.
- Condenser-located just below the mechanical stage.
  - Controls light stream, may be raised or lowered, contains aperture which can be narrowed and widened- (the iris diaphragm.)

Microscope Anatomy

- OBJECTIVES –
  - 4X – scanning lens
  - 10X- low power lens
  - 40X- high power lens
  - 100X- oil immersion lens

Focusing on Slides

1. Raise condenser to highest position, open iris diaphragm to widest point.
2. Scan on 10X, lower objective until it stops by course adjustment, focus slide by using course and fine adjustment.
3. Rotate to 40X, focus with fine adjustment, adjust condenser and light source.
4. Rotate to 100X, focus with fine adjustment, adjust condenser and light condenser.
5. Rotate oil-immersion lens slightly to side add drop of oil to slide, rotate lens back into position- focus!

Maintenance

- Service yearly by professional
- Store under plastic cover or in cabinet when not in use.
- Cleaning- wipe oil from 100X objective with lens paper.

Anatomy of a Microscope