

Items to Identify: Introduction to Microscopy

Slides to Identify

- Slide HISTO01: Plant Cell
 - Nuclei
 - Cytoplasm
 - Cell cycles phases
 -
- Slides 110 & 113: Human Blood Smear
 - Red blood cells
 - Granules in cells (neutrophils)
- Slide 145: Fundic Stomach
 - Structures of fundic stomach with H&E stain
- Slide 156: Pancreas (toluidine blue)
 - Observe the toluidine blue stain
 - Distinguish features based on stain intensity, shape, and size
 - Mitochondria
- Slide 158: Pancreas
 - Observe acidophilic and basophilic structures
 - Nucleus= basophilic (blue color)
 - Cytoplasm- acidophilic (pink color)
 - Observe cytoplasm and granules
- Slide 165: Testis
 - H&E preparation of testis
- Slide 244: Fundic Stomach (toluidine blue)
 - Structures of fundic stomach with toluidine blue stain
- Slide 19680: Human testis (toluidine blue)
 - Nuclei, and observe various intensities of staining
 - Large lipid droplets
- Slide 19709: Human testis (toluidine blue)
 - Unstained sections of tissue
 - Mast cells with dark red granules in both stained and unstained sections

EM's to Identify

- EM 2b: Liver (60,000x)
 - Compare sizes of membranes, ribosomes, and mitochondria
 - Conventional transmission electron microscopy
- EM 4a: Intestines – Occludens junction (carbon replica, TEM)
 - Carbon replica transmission electron microscopy
- EM 4c: Intestinal absorption cell (60,000x)
 - Compare sizes of membranes, ribosomes, and mitochondria
- EM 6: Lymphocyte (carbon replica, TEM)
 - Carbon replica transmission electron microscopy

- EM 6a: Centriole - Microtubules (200,000x)
 - o Compare sizes of membranes, ribosomes, and mitochondria
- EM 7: Ascites fluid; Golgi (80,000x)
 - o Compare sizes of membranes, ribosomes, and mitochondria
 - o Conventional transmission electron microscopy
- EM 8: Trachea – Cilia (SEM)
 - o Scanning electron microscopy
- EM 8f: Peripheral blood cells (9,000x)
 - o Compare sizes of membranes, ribosomes, and mitochondria
- EM 12a: Bone marrow (13,200x)
 - o Compare sizes of membranes, ribosomes, and mitochondria
- EM 18b: Kidney (SEM)
 - o Scanning electron microscopy