Histology Zoomer Webquest

Go to: <http://www2.yvcc.edu/histologyzoomer/HistologyTutorials/histology_tutorials.htm>

Answer the following:

1. What is an apical surface?
2. Where is epithelial tissue found?
3. What is a lumen?
4. How can you identify an apical surface?
5. Complete the apical surface exercise. How did you do? \_\_\_\_\_\_\_\_\_\_\_\_\_\_/ 4 questions
6. What is the difference between simple and stratified epithelium?
7. Which cells do you use to identify the cell shape?
8. Describe squamous, cubiodal and columnar shapes.
9. How are epithelial cells named?
10. Describe pseudostratified epithelium:
11. Describe transitional epithelium:

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Click on kidney 400X (zoom in and find a nice sample of cells surrounding a lumen)

1. Cell type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Function: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Label: nucleus, lumen, basement membrane

Click on lung 400X (zoom in)

1. Cell type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Function: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Label: nucleus, apical surface

Click on intestines 100x (zoom in until you find a nice sample of cells surrounding on the apical surface)

1. Cell type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Function: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Label: nucleus, lumen, basement membrane

Click on esophagus 100x (zoom in until you find a sample along an apical surface)

1. Cell type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Function: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Label: nucleus, lumen, basement membrane

Click on scalp 400x (zoom in until the cells are focused)

1. Cell type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Function: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Label: nucleus, basement membrane

Click on pseudostratified tissue (zoom in)

1. Cell type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Function: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Label: nucleus, cilia, basement membrane

Connective Tissue:

1. What are some characteristics of connective tissue under the microscope?
2. What is a fibroblast?
3. What fibers types can be seen in a sample of loose connective tissue?
4. What is the difference between dense regular and irregular tissue?
5. What is a chondrocyte?
6. How are the different types of cartilage identified?
7. What are the concentric rings in bone called?
8. What is the matrix of blood called? What are specialized blood cells called?
9. What are adipose cells filled with?
10. Try to identify the practice slides. How did you do? \_\_\_\_\_\_\_\_\_\_\_\_\_/ 4 slides.

CLICK ON HISTOLOGY ZOOMER PAGE🡪 SELF GUIDED IMAGE LIBRARY🡪CONNECTIVE

Areolar (100x or 400x)

1. Possible location of this tissue:
2. Function of tissue:
3. Label- elastic fiber, collagen fiber, fibroblast

Adipose tissue (400x)

1. Possible location of tissue:
2. Function:
3. Label- adipocyte, nucleus, lipid

Bone (400x)

1. Location of tissue:
2. Function:
3. Function of: central canal-

Canaliculi-

1. Label- osteon, osteocyte, central canal, canaliculi

Blood (400x)

1. Function of erythrocyte:
2. Function of a leukocyte:
3. Label- Erythrocyte, leukocyte, plasma

Hyaline cartilage (100x)

1. Location of tissue:
2. Function of tissue:
3. What does hyaline mean? How does this relate to tissue?
4. Label- ground substance, chondrocyte

Elastic cartilage (100x or 400x)

1. Location of tissue:
2. Function of tissue:
3. What types of fibers are present in this tissue type?
4. Label- ground substance, elastic fibers, chondrocyte

Fibrocartilage (100x or 400x)

1. Location of tissue:
2. Function of tissue:
3. Fibers present:
4. Label- ground substance, chondrocyte, collagen fiber

Nervous and Muscle:

Neuron Smear (100x or 400x)

26. Location of Tissue:

27. Function of tissue:

28. Label the Neuron and Glial cells.

Skeletal Muscle 400x example 2

29. Location of tissue:

30. Function of tissue:

31. Label- striation, nucleus

Cardiac Muscle 400x example 2

32. Location of tissue:

33. Function of tissue:

34. Label- striation, intercalated disc, branch

Intestine 400x (look at the bottom of slide for tissue sample)

35. Type of muscle tissue:

36. Function of tissue:

37. Label- nucleus