

JOHNSON COUNTY COMMUNITY COLLEGE
UNIT 2
HISTOLOGY
Structures to Know for Practical

HISTOLOGY

For each photomicrograph in 35mm slide set, be able to identify:

1. Specific tissue type
2. Additional recognizable structures or substances (bulleted items)

KEY TO 35MM SLIDE SET

Histology, The Study of Tissues (also available at <http://staff.jccc.net/dseibel/>)

1. JCCC logo
2. Title
3. Diagram of a cell
4. Four basic tissues
5. Epithelial tissue
6. Layers
7. Diagram of layers
8. Shapes
9. Diagram of shapes
10. Simple squamous epithelium
11. Endothelium
 - Cardiovascular system – lining of blood vessel
 - Lumen of blood vessel; erythrocytes
- *12. Mesothelium
 - Serous membrane
 - Loose connective tissue
13. Simple columnar epithelium
 - Digestive system (intestinal villus)
 - Brush border (microvilli)
14. Simple columnar epithelium
 - Goblet cell
15. Pseudostratified (ciliated) columnar epithelium
 - Respiratory system (lumen of trachea or bronchus)
 - Cilia; mucus; basement membrane (location)
16. Simple cuboidal epithelium
 - Lumen of duct or tubule
- *17. Simple cuboidal epithelium
 - Reproductive system (mammary gland)
 - Skin; lumina of lactiferous ducts
18. Dry/Keratinized stratified squamous epithelium
 - Integumentary system
 - Epidermal ridges; dermal papillae

- *19. Wet/Nonkeratinized stratified squamous epithelium
- 20. Transitional epithelium
 - Urinary system (urinary bladder or ureter)
- 21. Connective tissue
- 22. Diagram of connective tissue
- 23. Connective tissue types
- *24. Mesenchyme
 - Embryo
 - Fibroblasts; ground substance; collagen fibers
- *25. Loose/Areolar C.T.
 - Muscular system (skeletal muscle)
 - Fibroblasts; ground substance; collagen fibers; skeletal muscle fibers
- 26. Loose/Areolar C.T.
- *27. Loose/Areolar C.T.
- *28. Dense regular C.T. (white/collagenous)
 - Tendon or ligament
 - Fibroblast nuclei; collagen fibers
- *29. Dense regular C.T. (white/collagenous)
 - Collagen fibers
- 30. Dense regular C.T. (white/collagenous)
 - Muscular system – tendon
 - Fibroblast nuclei; collagen fibers
- 31. Dense irregular C.T.
 - Integumentary system – dermis
 - Epidermis; epidermal ridges; dermal papillae
- 32. Elastic C.T. (yellow)
 - Cardiovascular system – elastic membrane in wall of artery
 - Lumen of artery; erythrocytes
- 33. Adipose tissue
 - Adipocytes/fat cells
- *34. Adipose C.T.
- 35. Reticular C.T.
 - Reticular fibers
- 36. Supporting connective tissue
- 37. Diagram of cartilage
- 38. Hyaline cartilage
 - Perichondrium; chondrocytes; lacunae
- 39. Hyaline cartilage
 - Respiratory system (trachea or bronchus)
 - Chondrocytes; lacunae
- 40. Hyaline cartilage
 - Chondrocytes; lacunae
- 41. Fibrocartilage
 - Chondrocytes; collagen fibers
- *42. Elastic cartilage
 - Chondrocytes; lacunae; elastic fibers

43. Elastic cartilage
 - External ear
 - Chondrocytes; lacunae
44. Diagram of compact bone, cross section – osteon
45. Compact bone (decalcified), cross section
 - Central/Haversian canals; osteocytes; lamellae; osteons
46. Compact bone (decalcified), cross section – osteon
 - Central/Haversian canal; osteocytes; lamellae; canaliculi
- *47. Compact bone
 - Central/Haversian canal; osteocytes; lamellae; canaliculi; osteons
48. Compact bone (decalcified), cross section – perforating canal
 - Central/Haversian canal; osteocytes; lamellae; canaliculi
- *49. Compact bone (decalcified), longitudinal section
 - Central/Haversian canal; osteocytes; lamellae; perforating canal
50. Specialized connective tissue – blood
51. Formed elements
52. Diagram of an erythrocyte
53. Erythrocytes in a blood smear with 3 neutrophils
 - Plasma
- *54. Erythrocytes
 - Plasma
- *55. Erythrocyte: leukocyte (neutrophil) ratio [color corrected on website]
- *56. Leukocytes – 2 types (A = Agranular, G = Granular)
- *57. Granular leukocytes/Granulocytes
- *58. Granular leukocyte – neutrophil
 - Erythrocytes; plasma
- *59. Granular leukocyte – basophil [color corrected on website]
 - Erythrocytes; plasma
- *60. Granular leukocyte – eosinophil
 - Erythrocytes; plasma
- *61. Diagram of formed elements
 - A, G, H = neutrophils; B = monocyte; C = eosinophil; D, F = lymphocytes; E = basophil
- *62. Agranular leukocytes – lymphocytes
- *63. Agranular leukocyte – monocyte
 - Erythrocytes, plasma
- *64. Platelet formation
 - Megakaryocyte; platelets
- *65. Platelets with erythrocytes
 - Plasma
66. Muscle tissue
67. Diagram of muscle tissue types
68. Smooth muscle
 - Muscle fibers; nuclei
- *69. Smooth muscle
 - Digestive system (stomach)
 - Nuclei; mesothelium (visceral peritoneum)
- *70. Skeletal muscle
 - Muscle fibers; nuclei

71. Skeletal muscle
 - Muscle fibers; nuclei; striations
- *72. Cardiac muscle
 - Muscle fibers; nuclei
73. Cardiac muscle
 - Muscle fibers; nucleus; striations; intercalated discs
74. Nervous/Neural tissue
75. Diagram of a motor neuron
76. Nervous tissue
 - Multipolar neurons and neuroglia
- *77. Multipolar neurons and neuroglia
 - Central nervous system
- *78. Peripheral nerve, cross section
 - Peripheral nervous system
 - Myelinated axons; adipose tissue
- *79. Neuromuscular junction
 - Axon; skeletal muscle fibers
80. The end

* = Omit