



BODY TISSUES

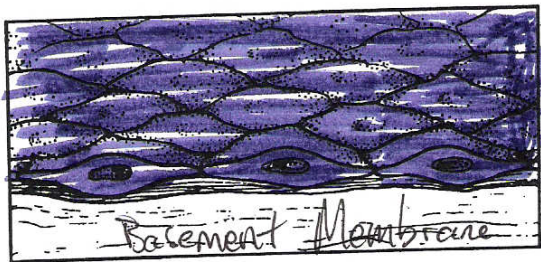
13. Twelve tissue types are diagrammed in Figure 3-6. Identify each tissue type by inserting the correct name in the blank below it on the diagram. Select different colors for the following structures and use them to color the coding circles and corresponding structures in the diagrams.

 Epithelial cells

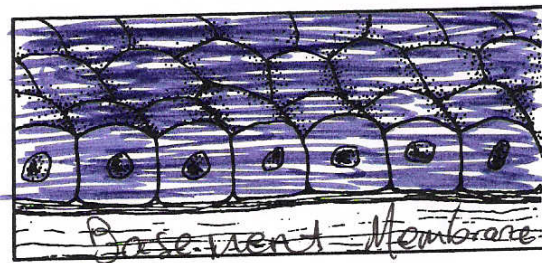
 Nerve cells

 Muscle cells

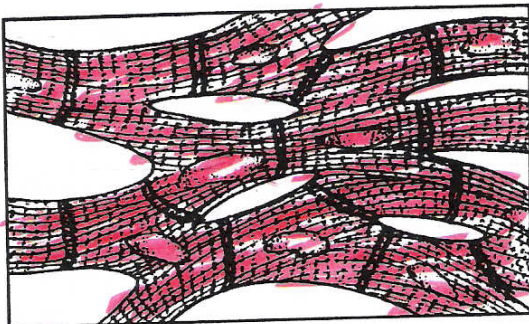
 Matrix (Where found, matrix should be colored differently from the living cells of that tissue type. Be careful, this may not be as easy as it seems!)



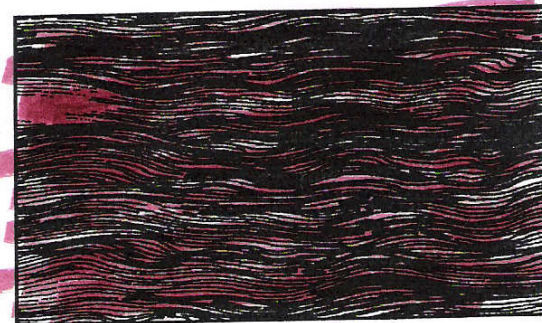
A Simple Squamous Epithelium



B Simple Cuboidal Epithelium



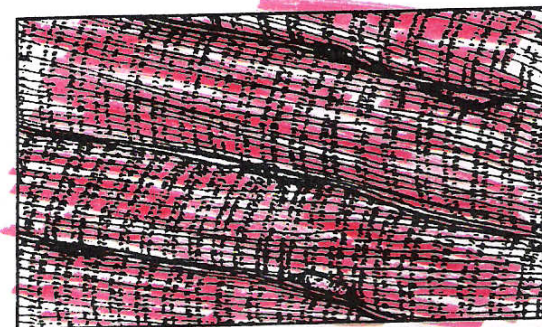
C Cardiac Muscle



D Dense Fibrous Connective



E Bone (Connective)



F Skeletal Muscle

Figure 3-6, A-F

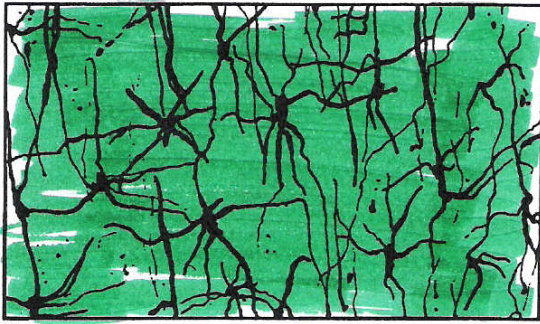
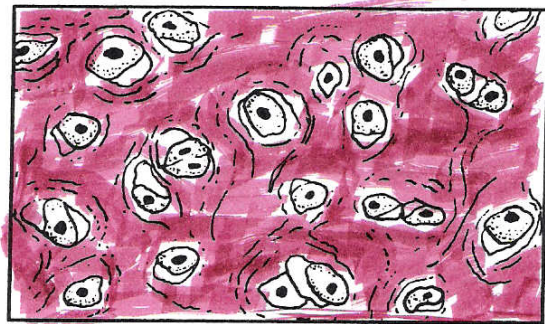
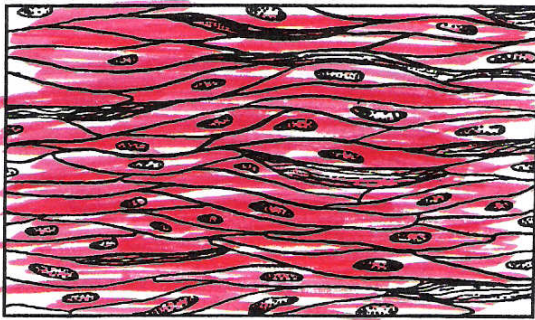
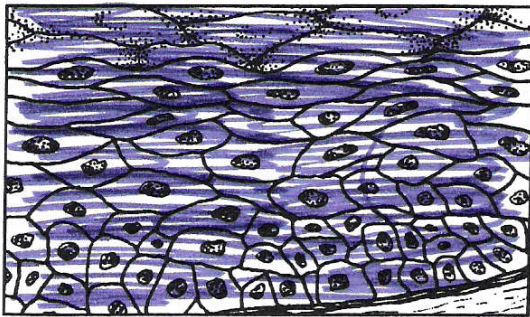
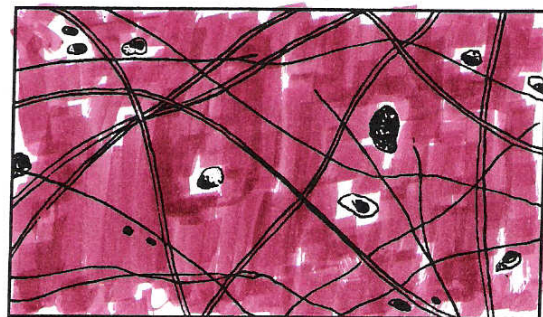
G Nervous TissueH Hyaline Cartilage (connective)I Smooth MuscleJ Adipose (Fat) (Connective)K Stratified Squamous EpitheliumL Areolar (Connective)

Figure 3-6, G-L

14. Describe briefly how the particular structure of a neuron relates to its function

in the body. The neuron (nerve cell) has long cytoplasmic extensions (like tentacles) that promote its ability to transmit impulses over long distances within the body

15. Using key choices, correctly identify the *major* tissue types described. Enter the appropriate letter or tissue type term in the answer blanks.

Key Choices

A. Connective B. Epithelium C. Muscle D. Nervous

- | | |
|-------------------|---|
| <u>Epithelium</u> | 1. Forms mucous, serous, and epidermal membranes |
| <u>Muscle</u> | 2. Allows for organ movements within the body |
| <u>Nervous</u> | 3. Transmits electrochemical impulses |
| <u>Connective</u> | 4. Supports body organs |
| <u>Epithelium</u> | 5. Cells of this tissue may absorb and/or secrete substances |
| <u>Nervous</u> | 6. Basis of the major controlling system of the body |
| <u>Muscle</u> | 7. The cells of this tissue shorten to exert force |
| <u>Epithelium</u> | 8. Forms hormones |
| <u>Connective</u> | 9. Packages and protects body organs |
| <u>Connective</u> | 10. Characterized by having large amounts of nonliving matrix |
| <u>Muscle</u> | 11. Allows you to smile, grasp, swim, ski, and shoot an arrow |
| <u>Connective</u> | 12. Most widely distributed tissue type in the body |
| <u>Nervous</u> | 13. Forms the brain and spinal cord |

16. Using key choices, identify the following specific type(s) of epithelial tissue. Enter the appropriate letter or classification term in the answer blanks.

Key Choices

A. Pseudostratified columnar (ciliated) C. Simple cuboidal E. Stratified squamous
B. Simple columnar D. Simple squamous F. Transitional

- | | |
|----------------------------------|--|
| <u>Stratified Squamous</u> | 1. Lines the esophagus and forms the skin epidermis |
| <u>Simple Columnar</u> | 2. Forms the lining of the stomach and small intestine |
| <u>Stratified Squamous</u> | 3. Best suited for areas subjected to friction |
| <u>pseudostratified columnar</u> | 4. Lines much of the respiratory tract |
| <u>pseudostratified columnar</u> | 5. Propels substances (e.g., mucus) across its surface |
| <u>Transitional</u> | 6. Found in the bladder lining; peculiar cells that slide over one another |
| <u>Simple Squamous</u> | 7. Forms thin serous membranes; a single layer of flattened cells |

18. The three types of muscle tissue exhibit certain similarities and differences. Check (✓) the appropriate spaces in the following table to indicate which muscle types exhibit each characteristic.

Characteristic	Skeletal	Cardiac	Smooth
1. Voluntarily controlled	✓		
2. Involuntarily controlled		✓	✓
3. Banded appearance	✓	✓	
4. Single nucleus in each cell		✓	✓
5. Multinucleate	✓		
6. Found attached to bones	✓		
7. Allows you to direct your eyeballs	✓		
8. Found in the walls of stomach, uterus, and arteries			✓
9. Contains spindle-shaped cells			✓
10. Contains cylindrical cells with branching ends		✓	
11. Contains long, nonbranching cylindrical cells	✓		
12. Displays intercalated disks		✓	
13. Concerned with locomotion of the body as a whole	✓		
14. Changes the internal volume of an organ as it contracts		✓	✓
15. Tissue of the circulatory pump		✓	