Muscular System and Skin Study Guide

Vocabulary

1. Involuntary muscle-muscles that are not under your conscious control like breathing and heartbeat
2. Voluntary muscle-muscles that are under your control like skeletal muscles
3. Skeletal muscle-voluntary muscles attached to the bones of your skeleton and provide the force that moves your body
4. Tendon-strong connective tissue that attaches muscle to bone
5. Striated muscle-banded
6. Smooth muscle-involuntary muscle found inside of many internal organs such as the stomach and blood vessels
7. Cardiac muscle-involuntary muscles found only in your heart
8. Epidermis-outer layer of the skin
9. Melanin-pigment that gives skin its color and protects from UV
10. Dermis-inner layer of the skin
11. Pore-an opening through which sweat reaches the surface of the skin
12. Follicle-structure in the dermis from which strands of hair grow

Key Concepts

1. What are the characteristics of cardiac, skeletal, and smooth muscle?
   1. Cardiac-involuntary, striated, don’t tire
   2. Skeletal-voluntary, striated, tire quickly, react quickly
   3. Smooth-involuntary, not striated, react more slowly, tire more slowly
2. How do skeletal muscles work?
   1. Work in pairs
   2. One contracts while the other relaxes
3. What are the five functions of the skin?
   1. Protecting the body
      1. Keeps microorganisms out
      2. Keeps needed materials in
   2. Maintaining temperature
      1. Sweating
      2. When warm, blood vessels enlarge and more blood is brought to release heat.
   3. Eliminating wastes
      1. Perspiration contains wastes produced from breakdown of wastes
   4. Gathering information
      1. Pressure, pain, and temperature
   5. Producing vitamin D
      1. Produced in presence of sunlight
      2. Helps cells absorb calcium in diet
4. What is the difference between the epidermis and the dermis?
   1. Epidermis-protects body and produces melanin that protects skin from UV
   2. Dermis-contains nerves, blood vessels, sweat glands, hairs, and oil glands
5. What is found under the dermis and what is its purpose?
   1. A fat layer
   2. Protects organs and keeps heat in
6. What should you do to take care of your skin?
   1. Eat a healthy diet
   2. Keep skin clean
   3. Limit sun exposure