# Chapter 19: Skin and Skeleton

## 19A

What type of tissue are blood and bones? Connective tissues

What type of tissue lines your body, on the outside? epithelial

## 19B

What are the two layers of your skin? What type of tissue composes each layer? The epidermis is theouter layer of skin, composed of epithelial tissue. The Dermis is the inner layer, composed mostly of connective tissues.

What causes acne? When pores get blocked, the oil glands below get inflamed and cause pimples

What two things occur in your skin to keep you cool? You sweat, and blood vessels dilate to permit more blood to flow near the skin’s surface (to cool it)

How is sunlight both helpful and potentially harmful? Sunlight helps your body produce Vitamin D, but too much can cause skin cancer or premature aging

## 19C

What are the four functions of the skeletal system? Support, protects the organs, stores minerals, produces blood cells

What two minerals are especially important for bones? Calcium and phosphorous

What part of the bone produces red blood cells? The bone marrow

Besides bone, what 5 other tissues are important to the skeletal system? Cartilage, blood vessels, bone marrow, ligaments, tendons

Give examples of the following types of joints:

* Hinge elbows, knees
* Ball and socket shoulder, hip
* Gliding spinal vertebrae

List 10 important bones in the body with their general placement, i.e. (patella--knee)

## 19D

What is the difference between involuntary and voluntary muscles? Voluntary you can control at will, but involuntary you cannot—they are automatic

What organ has involuntary, striated muscle? The heart

Do muscles work by pushing or pulling? pulling

How do muscles get the energy they need to function? By a continuous supply of ATP, which comes from burning glucose (sugar)

What are two explanations for cramps or sore muscles after exercising? Lactic acid build-up or microscopic tears in muscle fibers

How do muscles help regulate body temperature? They produce heat when they contract, which warms the body; shivering works these muscles for that purpose

List 10 major muscles of the body with their general location, i.e. (trapezius—shoulders)

## Vocab 19

Posterior

Anterior

Superior

Inferior

Epithelial cells

Nerve tissues

Connective tissues

Muscle tissues

Organs

Tissues

The 11 Organ Systems

Epidermis v Dermis

Melanin

Subcutaneous layer

Osteon

Tendons

Ligaments

Red Bone Marrow

Cartilage

Skeletal muscles v striated muscles

Smooth muscles v. cardiac muscles