Integumentary system

**Function**
- Protects the body from the outside world and keeps moisture inside.
- Helps regulate body temperature.
- Contains sense receptors for temperature, pain, and touch.

**Parts**
- Skin
- Sweat glands
- Hair
- Fingernails
Integumentary system

Function
- Protects the body from the outside world and keeps moisture inside.
- Helps regulate body temperature.
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Parts
- Skin
- Sweat glands
- Hair
- Fingernails
Muscular system

**Function**
- Moves the body.
- Moves materials within the body.
- Generates heat.

**Parts**
- Skeletal muscles, which are attached to bones and move the body around.

*Note: Smooth muscle tissue and cardiac muscle tissue are included in other systems.*
Skeletal system

**Function**

- Provides shape, support, and protection to the body, while allowing it to move.
- Blood cells are also produced in the marrow of bones.

**Parts**

- Bones
- Cartilage
- Joints (ligaments and tendons)

Fibroblasts are the main cells in dense connective tissue that makes up ligaments and tendons. Fibroblasts secrete collagen and elastic fibers.
Nervous system

**Function**
- Controls and coordinates body functions.
- Receives signals.
- Processes information.
- Transmits responses to organs.

**Parts**
- Brain
- Spinal cord
- Nerves
Cells Teaming Up
Organ Systems at Work

**Digestive system**

**Function**
- Breaks down food.
- Absorbs food’s useful substances—nutrients—to be used by cells throughout the body for energy and building materials.
- Gets rid of food waste.

**Parts**
- Mouth
- Esophagus
- Stomach
- Liver
- Small intestine
- Large intestine
- Rectum
- Anus
Respiratory system

**Function**
- Inhales oxygen and allows it to be dissolved into the bloodstream.
- Removes carbon dioxide from the bloodstream and exhales it.

**Parts**
- Nose
- Larynx
- Trachea
- Bronchi
- Lungs
- Diaphragm (the muscle that works the lungs)
Cardiovascular system

**Function**
- Delivers oxygen and nutrients to cells throughout the body.
- Carries waste materials away from all the cells.
- The main distribution system for all sorts of chemical signals, and for white blood cells that travel around the body fighting infectious diseases.
- Helps regulate body temperature by controlling how much blood flows near the body’s surface at different times.

**Parts**
- Heart
- Blood vessels
- Blood

*Weird fact: blood is considered a connective tissue, even though most tissues are solid.*
**Lymphatic system**

**Function**
- Takes fluid that has leaked out of blood vessels and returns it to the cardiovascular system.
- As this lymph fluid filters through the system, white blood cells also check it for signs of infection, and manage the body’s immune response to disease.

*Note: Sometimes scientists identify the immune system as a separate system.*

**Parts**
- Lymph vessels
- Lymph nodes
- Tonsils
- Thymus
- Spleen
Urinary system

Function
* Removes excess fluid and many dissolved waste products from the body.

Parts
- Kidneys
- Ureters
- Bladder
- Urethra
Endocrine system

Function

* Regulates and controls growth, development, and various body functions by releasing chemical signals called hormones into the bloodstream.

Parts

- Various glands throughout the body, including
  - Pituitary glands
  - Adrenal glands
  - Thyroid glands
  - Ovaries
Endocrine system

Function

- Regulates and controls growth, development, and various body functions by releasing chemical signals called hormones into the bloodstream.

Parts

- Various glands throughout the body, including
  - Pituitary glands
  - Adrenal glands
  - Thyroid glands
  - Testes
Reproductive system female

**Function**
- Produces children through sexual reproduction.

**Parts**
- Vagina
- Uterus
- Ovaries
Reproductive system
male

**Function**
* Produces children through sexual reproduction.

**Parts**
- [ ] Penis
- [ ] Testes