

Conceptual Biology

Chapter 14: Maintaining the Body

Circulatory System

Fill in the blanks:

1. Each heartbeat begins in a part of the right atrium called the _____,
or pacemaker.

The pacemaker starts an action potential that sweeps quickly through two chambers of the heart, the _____ and _____,
which contract simultaneously.

The signal also travels to the _____,
and from there to the other two chambers of the heart,
the _____
and _____.

These two chambers also contract simultaneously.



2. a. The sound of a heartbeat is “lub-dubb, lub-dubb.” What is the “lub”?

b. What is the “dubb”?

3. The three types of cells found in blood are _____,

_____, and _____.

_____ transport oxygen to the body’s tissues.

_____ are part of the immune system and help our bodies

defend against disease. _____ are involved in blood clotting.

4. The molecule in red blood cells that carries oxygen is called _____.

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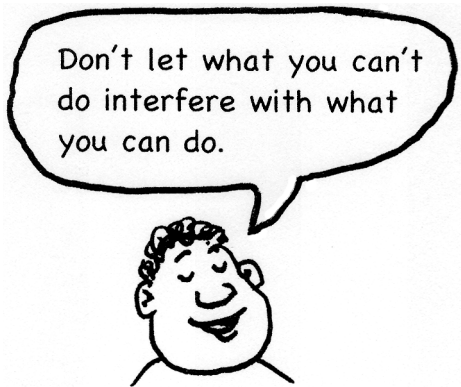
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Circulatory System—continued

Number from 1 to 9:

5. In what order does blood flow around the body? Begin with the right atrium.

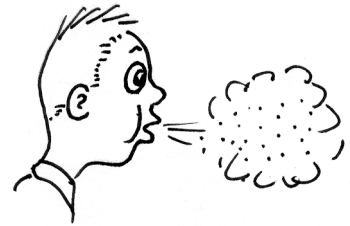
- _____ Arteries to lungs
- _____ Right atrium
- _____ Left atrium
- _____ Veins from body tissues
- _____ Veins from lungs
- _____ Capillaries near body tissues
- _____ Arteries to body tissues
- _____ Right ventricle
- _____ Left ventricle



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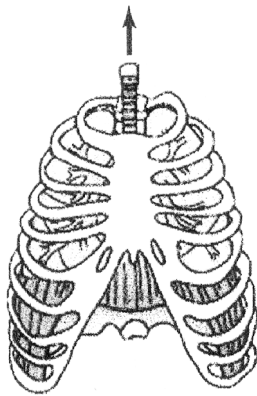
Respiratory System



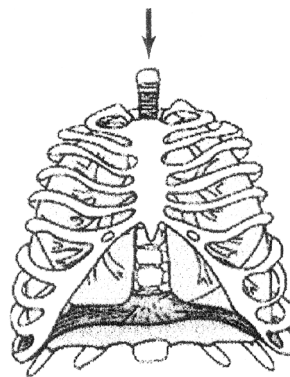
1. Match each part of the respiratory system with its description.

- | | | |
|----------------|-------|---|
| Nasal passages | _____ | a. Where gas exchange occurs |
| Larynx | _____ | b. Another word for trachea |
| Trachea | _____ | c. Structure allows us to speak |
| Alveoli | _____ | d. Raises the ribcage when we inhale |
| Diaphragm | _____ | e. Smelling happens here |
| Rib muscles | _____ | f. Dome-shaped muscle helps us inhale |
| Bronchi | _____ | g. Tubes that go to the right and left lungs |
| Windpipe | _____ | h. A short tube stiffened by rings of cartilage |

2. Which figure shows a person inhaling? Which figure shows a person exhaling?



a. _____



b. _____

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Digestion

1. Why do we have to digest our food?



2. Label the parts of the digestive system using the following terms:

Stomach

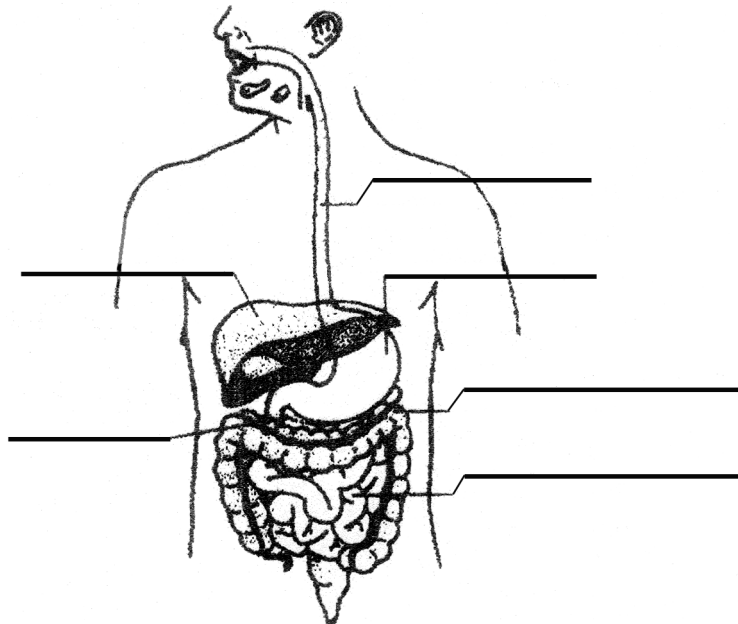
Liver

Pancreas

Small intestine

Esophagus

Large intestine



3. Where does each of the following events important in digestion occur?

- | | |
|----------|---|
| a. _____ | Bile is made |
| b. _____ | A highly acidic mix of hydrochloric acid and digestive enzymes is added |
| c. _____ | Most nutrients are absorbed into the body |
| d. _____ | Food is chewed and broken into smaller pieces |
| e. _____ | Water is absorbed |
| f. _____ | Muscular churning of food |
| g. _____ | Saliva begins digesting starches in our food |
| h. _____ | Enzymes from the pancreas help with digestion |
| i. _____ | Vitamins K and B are made by bacteria |