**Circulatory** **System**

**The Purpose of the Circulatory System**

 The circulatory system is the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** system for the entire body. It carries **\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_**, and **\_\_\_\_\_\_\_\_\_\_\_** to all portions of your body, and carries **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** products like **\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_** away from the body parts to be **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** away and **\_\_\_\_\_\_\_\_\_\_\_\_\_**. Without blood: oxygen in our **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** wouldn’t have any way to make it to our **\_\_\_\_\_\_\_,** or nutrients in our **\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** wouldn’t be able to make it to our **\_\_\_\_\_\_\_\_\_\_**.

 Most **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of material between body cells to the blood happen through **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. So blood will only transfer oxygen and nutrients to cells that have a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** concentration of oxygen and nutrients that it has itself.

**The Heart of the Matter**

 The main hub and workstation of the circulatory system is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.** The heart has four main chambers. The chambers that allow blood to move **\_\_\_\_\_\_\_\_\_\_\_\_\_** the heart from the body are called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_**.** The chambers that move blood \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_the heart and into the body are called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.



 The left and right refer to the left and right side of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** so this figure is mirrored from the one in your body.

 Between the chambers are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. Each valve allows blood to flow in only one direction. The heartbeat you can hear is the muscles of the heart squeezing, opening and closing these valves.

**Blood Vessels**

 Blood vessels are the **“\_\_\_\_\_\_\_\_\_\_\_”** or “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”your blood takes to move through the body. There are three types of blood vessels in your body: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are the vessels that carry blood from the heart and into the body. Most arteries carry **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** (has lots of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**) blood. The heart pumps the blood through the arteries, using pressure to keep it moving. Arteries have \_\_\_\_\_\_\_\_\_\_\_\_**,** flexible walls to withstand the pressurized flow.

 The largest artery in your body is the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and has a width of approximately a penny. It branches into smaller and smaller arteries until the smallest arteries, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**,** reach the capillaries.

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are a network of tiny blood vessels. It is here that blood diffuses oxygen, nutrients, and glucose (sugar) through the thin walls into other tissues that need it. This is also where blood will pick up carbon dioxide and other wastes.

 After leaving the capillaries, the blood no longer has oxygen or is called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** blood. The blood goes from the capillaries to the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and then into the **\_\_\_\_\_\_\_\_\_\_\_\_**. The veins carry the blood back to your heart. The blood is no longer under pressure, so the veins are thin walled. They also have valves to prevent blood from flowing backwards through the vein.

Key Question:

Which body systems are connected to the circulatory system? Where do they interact?