Circulatory System
The circulatory system delivers materials, such as oxygen and nutrients, necessary for body cells to function properly. It also carries away waste that body cells make.
Parts of the Circulatory System

Heart
Blood
Blood Vessels
Blood Vessels

The system of tubes that carry blood.

Arteries - carry blood away from the heart to body cells.

Veins - carry blood back in to the heart.

Capillaries - the smallest, thinnest, and most numerous blood vessels where oxygen, nutrients, and waste are exchanged between blood cells and body cells.
Heart

* is a muscle
* never gets tired.
* about the size of your fist.

Heart Rate - the number of times your heart beats in one minute.

Pacemaker - a small battery powered machine that sets the pace of someone's heart to beat at a steady pace.
Why does your heart beat faster when you exercise?

* When you exercise, your body cells are using up energy and need more nutrients and oxygen faster.

* Your heart pumps faster to deliver more blood to your muscles.

What is a pulse?

A pulse is the "thudding" in our arteries every time our heart contracts.
Blood

Plasma
- The liquid part of the blood; it makes up about \( \frac{3}{4} \) of the blood.

Red Blood Cells
- Picks up oxygen and carries it to body cells.

Platelets
- Help blood to clot so wounds can heal.

White Blood Cells
- Help to protect your body from disease.
What's in Blood?

Blood Facts!

* Blood is thicker than water!
* There are millions of red blood cells in one drop of blood.
* Blood also contains minerals, vitamins, and hormones.
* There are 60,000 miles of blood vessels in an adult's body.
* Blood circulated around your entire body in 1 minute.

Plasma
- White blood cells and platelets
- Red blood cells
What is a heart attack?

A heart attack occurs when part of the heart doesn't get enough oxygen, which happens when an artery gets blocked.

Getting regular exercise, a healthy diet, and not smoking can help prevent a heart attack.