**The Circulatory System**

* Cells require \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ of oxygen and nutrients as well as \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ of carbon dioxide and other wastes
* The circulatory system acts as both a \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ system
* The blood carries oxygen and nutrients \_\_\_\_\_\_ the cells then carbon dioxide and wastes \_\_\_\_\_\_\_\_\_ from the cells

How does it work?

* The circulatory system is essentially a \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_
* Blood is pumped through the body by the \_\_\_\_\_\_\_\_\_\_\_\_ (the pump) and travels through blood \_\_\_\_\_\_\_\_\_\_\_\_(the tubes)

The Heart

* A muscular \_\_\_\_\_\_\_\_\_\_ located between the \_\_\_\_\_\_\_\_\_\_\_\_ in the chest
* It is a powerful \_\_\_\_\_\_\_\_\_\_\_ that beats an average of \_\_\_\_\_\_\_\_ times/minute
* The upper-right chamber (right \_\_\_\_\_\_\_\_\_\_\_) receives carbon dioxide-rich blood from all over the body
* Then the carbon dioxide-rich blood moves into the lower-right chamber (right \_\_\_\_\_\_\_\_\_\_\_\_\_), which pumps it to the lungs
* Inside the lungs, the blood gets rid of carbon dioxide and picks up \_\_\_\_\_\_\_\_\_\_\_\_
* The upper-left chamber (left \_\_\_\_\_\_\_\_\_\_\_\_) receives oxygen-rich blood from the lungs
* Then, oxygen-rich blood moves into the lower-left chamber (left \_\_\_\_\_\_\_\_\_\_\_\_\_) which pumps it out to the \_\_\_\_\_\_\_\_\_\_ cells
* The heart contains \_\_\_\_\_\_\_\_\_\_\_\_ to control the flow of blood and prevent \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Two Systems

There are ***two separate systems*** within the main circulatory system:

* 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: circulates oxygen-poor blood to the \_\_\_\_\_\_\_\_\_\_ to become oxygen-rich blood to be delivered to the bo
  2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: circulates oxygen-rich blood to the \_\_\_\_\_\_\_\_\_ delivering nutrients, picking up wastes and then delivering oxygen-poor blood \_\_\_\_\_\_\_\_\_\_\_ to the heart

Blood Vessels

* The \_\_\_\_\_\_\_\_\_\_\_\_\_ of the circulatory system
* As they move ***towards*** the cells, they branch out and grow \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_
* This allows them to bring blood to \_\_\_\_\_\_\_\_ the cells of the body
* As they move ***away*** from cells and back towards the lungs, they grow \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_again
* There are three main types:

1. \_\_\_\_\_\_\_\_\_\_\_\_\_:
   * thick, elastic wall
   * carry blood \_\_\_\_\_\_\_\_\_\_\_ from the heart
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_:
   * small and thin
   * Where nutrient and \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ occur
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_:
   * thin, inelastic wall
   * carry blood \_\_\_\_\_\_\_\_\_\_\_\_ the heart
   * contain \_\_\_\_\_\_\_\_\_\_\_\_\_\_

