**November Notes: Day 4**

Name: Period: Date:

Aim: What is the main goal of the circulatory system and how does it help the body maintain homeostasis?

Do Now: Describe some physiological changes (changes in your body) after you ran for a minute?

**What does the circulatory system do?**

* It delivers and to body cells.
* It carries and other away from the body cells

**Why is transport so important?**

* Body cells (any cell in the body) need and for
* If these molecules do not reach the , the cells will .
* Once the cells perform respiration, is produced ( and waste).
* If the waste products aren’t , the toxic level within the cell would , killing the cell.

**How does the circulatory system provide homeostasis?**

* As the brings nutrients to the cells, it picks up cellular waste and brings it from the cell,
* During , your body is using more and . As a result, blood is pumped to your cells so that it can the glucose and oxygen that was used.

**What organs makes up the Circulatory System?**

The Circulatory System is broken into main parts:

1. The

 a) made mostly of muscle

 b) has chambers

2. The Blood:

 a) consists of and blood

 b) types of blood cells: , ,

3. The Blood Vessels

 a)

 b)

 c)

**The Heart**

* The heart has main functions

 1) The heart pumps blood (blood with oxygen) the cells of the body.

 2) The heart pumps blood (blood without oxygen) to the .

* The Heart is separated into 2 sides:
* The right side – takes deoxygenated blood from the body and pumps it to the lungs.
* The left side – take oxygenated blood from the lungs and pumps it to the body.
* There is no mixing of blood

**The Blood**

* The blood is the part of the system.
* It is classified as a .
* The blood has several :

 - It brings and to the .

 - It removes products from the .

 - It aids in the body.

 - It helps in off .

* The Red Blood Cells contain a called that carries to the cells.
* Blood Cell search for and organisms.
* help to form and scabs to stop during a cut.
* is the part of the blood and it contains all the and cell .

**How many liters of blood do you think you body has in it?**

**The Blood Vessels**

The blood moves through the body in a series of tubes.

* are tubes that brings blood from the .
* are medium sized tube that also have that move blood to the heart.
* are walled tubes where molecules are in and out of the neighboring cells.

**You Gotta’ Keep ‘em Separated!**

Question: Why do you think it is necessary for the heart to have a (divider) that separates the right side from the left?

Hint: Think about what type of blood the heart compared to what type of blood the heart.

ANSWER: The right side of the heart is receiving blood from the body. If there is were no valve separating the right chamber of the heart from the left, the heart would pump some of the blood out into the ☹ That would be bad!