**Circulatory Test Answers**

**Question 1:**

What are the three parts that make up the circulatory system?

The circulatory system is your blood, blood vessels and heart.

**Question 2:**

The heart pumps blood through blood vessels. What are blood vessels and can you name the three types of blood vessels in your body?

Blood vessels are bloodtubes. The three types of blood vessels are veins, arteries and capillaries.

 **Question 3a and 3b:**

3a. Finish these sentences (use a red and blue coloured pen or pencil to record the sentences).

**\_\_\_\_\_\_\_\_\_arteries\_\_\_** carry blood away from the heart

**\_\_\_\_\_\_\_\_\_\_veins\_\_\_\_\_\_** carry blood to the heart

\_\_\_\_capillaries \_\_\_\_\_\_ connect the arteries to the veins. They also \_\_\_deliver oxygen, water and nutrients to the cells and pick up waste and carbon dioxide.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3b. In your own words describe how the blood flows through these different blood vessels. Don’t forget to describe the important role of the blood flowing through the capillaries delivering and collecting specific materials (list them) to the cells in your body. You also need to mention the heart!

Oxygenated blood flows away from the left side of the heart at high pressure through arteries. Arteries carry oxygen, water and nutrients to all cells and organs within the body.

Veins carry deoxygenated blood to the right side of the heart. Veins have thin walls, a larger passageway for blood to flow and blood travels under low pressure. Veins have valves to prevent blood flowing backwards.

Capillaries connect arteries and veins. From the arteries, capillaries deliver nutrients, water and oxygen to cells and pick up waste and carbon dioxide that travel through the veins. Capillaries are microscopic, only one cell thick and have narrow, thin walls to allow gas exchange. Oxygen passes through the capillary wall and into the tissues, then carbon dioxide passes from the tissues into the blood, back into the veins.

**Question 4:**

Complete the sentence.

The human circulatory system is a **\_\_\_double\_\_\_\_ circulatory system**. It has two separate circuits and blood passes through the heart twice:

1. between the \_heart and \_lungs (**pulmonary circuit)** \_\_\_\_\_\_\_\_\_
2. between the \_\_\_heart\_\_\_\_ and \_other organs (**systemic circuit**) \_\_\_\_\_\_\_\_

**Question 5**:

Add in any additional facts about the circulatory system.

* The heart is the most important organ in the circulatory system. This organ is a muscular pump, pushing blood through the body. It beats between 60 and 100 times per minute.
* With each heartbeat the heart sends blood throughout our bodies delivering oxygen, water and nutrients to every cell. After delivering oxygen, the blood becomes deoxygenated and carries carbon dioxide back to the heart. The heart then pumps the deoxygenated blood to the lungs where the blood picks up new oxygen and drops off the carbon dioxide (where it is breathed out). The oxygenated blood then returns back to the heart and the heart pumps it out to the body so the cycle repeats again and again.