

Girls' High School and College, Prayagraj.

Worksheet No. 5

Session 2020-2021.

Class 5A-F

Subject- Science

Lesson-The Circulatory and Nervous system

Topic- The Circulatory System

Instructions: Parents are requested to help the child read and understand the text carefully and complete the exercises given at the end of the topic.

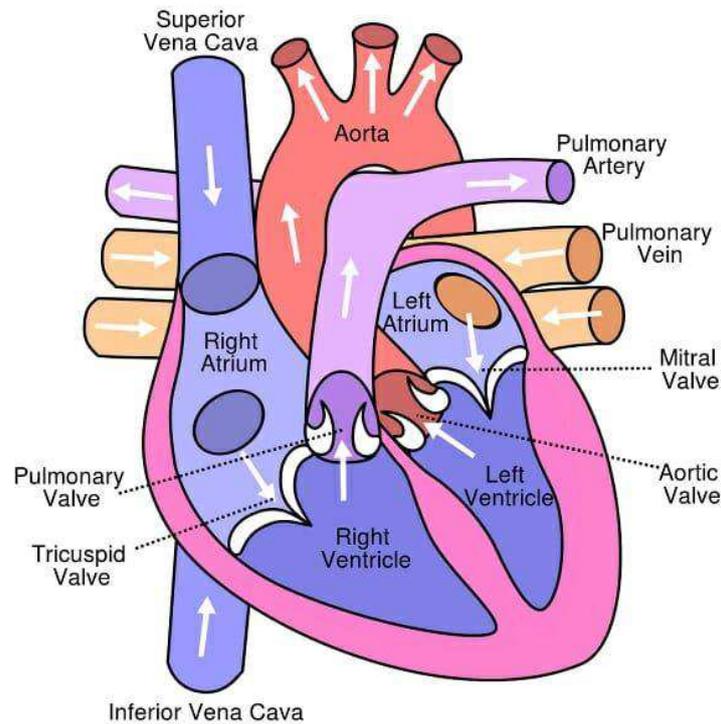
The Circulatory System:

Our body consists of several systems all of which are helpful for the proper functioning of it. The circulatory system is a very important system of our body and consists of:

1. The Heart.
2. Blood.
3. Blood vessels.

The circulatory system is the transport system of our body .It is responsible for transporting nutrients, oxygen and water to all parts of the body and collect carbon-dioxide and other wastes from them.

THE HEART:



The Heart is a muscular organ which starts working from before we are born till the time we cease to live . Simply put, it is a pumping machine which contracts and relaxes continuously and pumps blood to all parts of our body. The heart is situated in between the lungs, tilted slightly to the left. It is about the size of our clenched fist.

Blood: The blood is pumped by the heart and flows continuously through the blood vessels. The blood carries nutrients, water and oxygen to the cells. It also has a protein called haemoglobin which combines with oxygen to give red colour to the blood. The blood also carries waste products which are to be removed from our body.

Blood vessels-Blood vessels are a network of tubular structures which carry blood to the different body parts. There are three types of blood vessels-

- Arteries.
- Veins.
- Capillaries.

Arteries: Any blood vessel which goes away from the heart and carries blood to all parts of the body is an Artery.

Veins: Any blood vessel which carries blood from different organs towards the heart is a vein.

Capillaries: The capillaries are very thin blood vessels which connect the arteries to the veins.

NOTE: Since the capillaries are very thin, all exchange of gases, nutrients and wastes occurs through them.

Heartbeat and Pulse: The heart is continuously contracting and relaxing to pump blood, this contraction and relaxation of the heart muscle produces a beat. This is known as **heartbeat**.

The healthy human heart beats **60-80** times per minute.

Doctors use the **Stethoscope** to hear the heartbeat.

The continuous beating of the heart produces a rhythmic wave felt in all blood vessels of the body. This is known **Pulse**.

EXERCISE-1: Write the definition of-

1. Pulse.
2. Heartbeat
3. Arteries.
4. Veins and
5. Capillaries.

EXERCISE 2: Fill in the Blanks :

1. _____ is the number of times the healthy human heart beats per minute.
2. The rhythmic and wavy motion of blood in the blood vessels is known as _____.

3. The heart is situated between the _____.
4. The blood contains a protein known as _____ which combines with oxygen.
5. All exchange of gases, nutrients and wastes occurs through _____.

EXERCISE 3: Understand and learn the difference between the following:-

1. Arteries and veins.
2. Veins and capillaries.
3. Heartbeat and pulse.

ANSWER 3:

1)

Arteries.	Veins
Arteries carry blood from the heart to different parts of the body.	Veins carry blood from the different parts of the body to the heart.

2)

Veins	Capillaries
Veins carry blood from different parts of the body to the heart.	Capillaries are very thin blood vessels that connect the artery to the vein.

3)

Heartbeat	Pulse
The contraction and relaxation of the heart muscles produce a sound or beat. This is called a heartbeat.	Pulse is the rhythmic wavy movement caused by the blood by the pumping of the heart.

EXERCISE 4: Understand and learn the following detailed question answers:-

1) Name the parts of the circulatory system.

Answer 1) The parts of the circulatory system are__

- a) The heart.
- b) The blood and
- c) The blood vessels.

2) Where is the heart situated?

Answer 2) The heart is situated in between the lungs, tilted slightly to the left.

3) What is haemoglobin?

Answer 3) Haemoglobin is a protein present in the blood which gives the blood its red colour.

4) What is the role of the blood in our circulatory system?

Answer 4) Blood carries nutrients, oxygen and water to the tissues and removes the waste products from them.

5) Why is the heart a very important organ of our body?

Answer 5) We cannot live if our heart does not function. The heart is a strong muscular organ and it continuously pumps blood to all parts of the body which allows our body to function.

END