



Blood

Blood: The Main Transportation Fluid:

Blood is the fluid responsible for transporting:

- Oxygen, nutrients, and hormones to the cells.
- Waste products away from the cells.

Flows through blood vessels.

Components of Blood:

i. Plasma (Liquid Component)

Fluid portion of blood in which blood cells are suspended.

Function:

- Transports nutrients to cells.
- Carries waste away from cells.

ii. Red Blood Cells (RBCs)

Contain hemoglobin, a respiratory pigment.

Function:

- Carry oxygen from the lungs to the rest of the body.
- Carry carbon dioxide from the body back to the lungs.

iii. White Blood Cells (WBCs)

Part of the immune system.

Function:

- Fight infections.
- Help build immunity.

iv. Heart Rate

Function:

- Help in blood clotting during injuries to prevent excessive bleeding.



Blood Colors in Different Organisms:

Blood color varies due to the respiratory pigment used to transport oxygen:

- **Humans:** Red blood (due to hemoglobin).
- **Crustaceans (spiders, squids, octopuses):** Blue blood.
- **Some worms and leeches:** Green blood.
- **Marine worms:** Violet blood.
- **Insects (beetles, butterflies):** Colorless or pale-yellow blood.