

### Student learning outcome (SLO):

<ul style="list-style-type: none"> <li>Describe the Human transport system.</li> <li>Describe circulatory system and its components.</li> </ul>	<ul style="list-style-type: none"> <li>Explain the working and structure of heart.</li> <li>Explain the disorders of circulatory system.</li> </ul>
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### Overview:

The main purpose of this lesson is to help students understand how blood circulates in the body, delivering oxygen and nutrients while removing waste. It fosters awareness of the vital role the circulatory system plays in maintaining overall health and emphasizes the connection between heart, blood vessels and organ function.



### Introduction:

Lead the students in learning about,

**‘The Heart and the circulatory system’.**

**‘How does Human circulatory system work?’**

Video of the lecture can be shown to the students as well.

<a href="https://youtu.be/CWFyxn0qDEU?si=9y8uF2krFlh_N4qY">https://youtu.be/CWFyxn0qDEU?si=9y8uF2krFlh_N4qY</a>	
<a href="https://youtu.be/SwHjwO7BnsI?si=QrkNe1Z_AJH94uzH">https://youtu.be/SwHjwO7BnsI?si=QrkNe1Z_AJH94uzH</a>	

### Keywords:

Cardiovascular, arteries, veins, capillaries, nutrients, transportation, heart rate, pulse, systemic circulation, pulmonary circulation

### Material:

- Cones or markers
- Stopwatch
- Index cards
- Markers
- Red string
- Tape

### Activity: Blood flow relay race

- Place cones or markers around the area to represent different parts of the circulatory system.
- Stretch red string from the heart to the markers, creating a visual representation of blood flow.
- Divide the class into teams
- Assign a simple task at each station (e.g., jumping jacks, running in place)
- Each team member performs the task at their assigned station and then passes the red string to the next team member.
- Emphasize that the red string represents blood flowing through the circulatory system
- Use a stopwatch or timer to record the total time each team takes to complete the relay race
- Gather the students after the race and briefly discuss how the activities at each station relate to the circulatory system

### Essential questions:

Before starting the lesson, ask some questions to explore the background knowledge of students:

1. Describe the main components of the circulatory system.
2. How does blood circulate through heart and rest of the body?
3. How blood vessels differ from each other?
4. What role do capillaries play in the circulatory system?
5. Why oxygen is important?
6. How is the heart rate regulated?
7. Discuss the concept of systemic circulation.
8. How does exercise impact the circulatory system?