

# Circulation: The Pathway of Life



**Annotation:**

This lesson will provide students with knowledge on basic components of the circulation system, components of blood, heart rate as an indicator of cardiovascular health and an understanding of how the circulatory system interacts with and provides energy to all other body systems.

**Primary Learning Outcome:**

Students should understand how blood flows through the heart and body, the difference between oxygenated and deoxygenated blood, how blood acts as an oxygen and energy reservoir vs. detoxifying agent, and factors that may effect cardiovascular health.

**Assessed QCC's:**

Standard: Analyzes the overall organization of the human body.

22.1 Describes the basic function of each body system.

**Standard:** Describes the anatomy of each system.

23.1 Identifies the organs and structural parts present in each system (e.g., circulatory: heart, arteries, veins, and capillaries).

23.2 Describes the basic structure of the major organ in each system (e.g., heart: chambers, valves; lungs: bronchi, bronchioles, and alveoli).

**Materials:**

Stethoscope

Marshmallows

Corn syrup

Red hots candy

Sprinkles

**Total Duration:**

1.0 hrs.

**Procedures:**

<b>Step 1</b>	
Description	Circulatory System Class notes/lecture
Duration in hours/minutes	30 minutes
Attachment #1 – Name and description	Circ. System notes
<b>Step 2</b>	
Description	Making Blood
Duration in hours/minutes	20 minutes
Attachment #1 – Name and description	What is Blood Made of?
<b>Step 3</b>	

Description	Measuring Resting Heart Beat
Duration in hours/minutes	10
Attachment #1 – Name and description	Activity to Measure resting heart rate vs. heart rate after exercising

**Assessment:**

This lesson will be assessed by having students answer questions regarding blood components, filling out lecture notes properly, and discussing the difference between resting heart rates and heart rates after exercise.

**Extension:**

Students may design cardiovascular exercise routines that will improve their cardiovascular health.

**Remediation:**

Students should be helped to trace the flow of blood through the body. Additionally, a discussion on athlete's conditioning training, the heart as a muscle, and the difference between oxygenated and deoxygenated blood should be reemphasized.