

Format: Virtual Science Academy (VSA)

Grades: 3-5 & 6-8

Length: 45 minutes

General Description

Get your students' pulse going with this live dissection experience! Your class will participate in interactive experiments and discussion, as well as guide the dissection of a real sheep heart.

Big Ideas:

- Explore the structure of the circulatory system as well as the functions of its individual parts
- Explain why the circulatory system is needed for the body to survive and how it responds to basic bodily function and change.

Key Concepts

- The primary function of the circulatory system is to deliver oxygen and nutrient-blood throughout the body, while carrying away wastes for recycling.
- The circulatory system works in tandem with the respiratory system to circulate and exchange gases, and in tandem with the digestive system to circulate nutrients.
- The circulatory system responds to various changes in environment or bodily activity.

GRADES 3-5

Colorado Academic Standards

- **4-LS2-GLE1** Organisms have both internal and external structures that serve various functions.

Next Generation Science Standards

- **4-LS1-1** Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. [*Clarification Statement:* Examples of structures could include thorns, stems, roots, colored petals, **heart**, stomach, lung, brain, and skin.]

GRADES 6-8

Colorado Academic Standards

- **MS-LS1-GLE1** All living things are made up of cells, which is the smallest unit that can be said to be alive.
 - c. Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells. [*Clarification Statement:* emphasis is on the conceptual understanding that **cells form tissues and tissues form organs specialized for particular body functions**. Examples could include the interaction of subsystems within a system and the normal function of those systems.] [*Boundary Statement:* Does

not include the mechanism of one body system independent of others. Limited to the **circulatory**, excretory, digestive, respiratory, muscular, and nervous systems.]

Next Generation Science Standards

MS-LS1-3 Students who demonstrate understanding can: Use arguments supported by evidence for how the body is a system of interacting subsystems composed of groups of cells. [*Clarification Statement:* Emphasis is on the conceptual understanding that cells form tissues and **tissues form organs specialized for particular body functions**. Examples could include the **interaction of subsystems within a system** and the **normal functioning of those systems**.]