Title: The Human Heart

Objectives

Students will be able to name the parts of the heart and associated blood vessels and their functions in the circulation of blood.

Time frame to Complete

30 minutes

NRS EFL

3

Stackable Cert. Documentation	Technology	Study / Life skills	EL-Civics	Career Pathways	Police	Paramedic	Fire Rescue	Medical Asst.	EKG / Cardio	Phlebotomy	Practical Nursing	Healthcare Admin	Pharmacy Tech	IMT	AMT	HVAC	Welding	Other:	STNA				
						X		X	X	X	X	X							X				

Standard(s) Addressed in Lesson

Read with Understanding

Benchmark(s) Addressed in Lesson

R.3.1. Identify purposes for reading

R.3.8. Understand meaning of common high-interest content vocabulary and general academic vocabulary.

R.3.12 Use structural elements, visual/graphic cues, complex punctuation clues, and organizational strategies to aid in comprehension of print and electronic texts.

R.3.16. Construct meaning from text by evaluating relevance of prior knowledge and applying appropriate knowledge to new information read

Materials

Heart Anatomy handout

"How to Feed a Heart" handouts available from: http://www.texasheart.org/HIC/ProjH/g4masters.cfm

Heart Vocabulary handout (optional)

Learner Prior Knowledge

Students should be aware of the function of the heart.

Activities

Step 1 Ask students to identify the function of the heart. Then, ask students to explain how a heart works. Look for a very basic understanding – such as that the heart is a muscle that pumps blood. Explain to the class that today they will learn the parts of the heart and how it circulates blood throughout our bodies.

Step 2 Distribute the *Heart Anatomy* handout. Students may read independently or as a class.

Step 3 Distribute the "How to Feed a Heart" handouts. Students should read and study the diagram, and then label and color the blank diagram independently.

Step 4 Check work. Students may go back and review the handouts in order to correct any errors.

Assessment/Evidence

Completion of handout

Adaptations for Beginning Students

Adaptations for Advanced Students

Provide advanced students with the *Heart Vocabulary* handout, which features additional medical terms associated with the cardiovascular system. Students add the applicable terms to their diagrams.

Teacher Reflection/Lesson Evaluation

This lesson was created by Middletown ABLE.

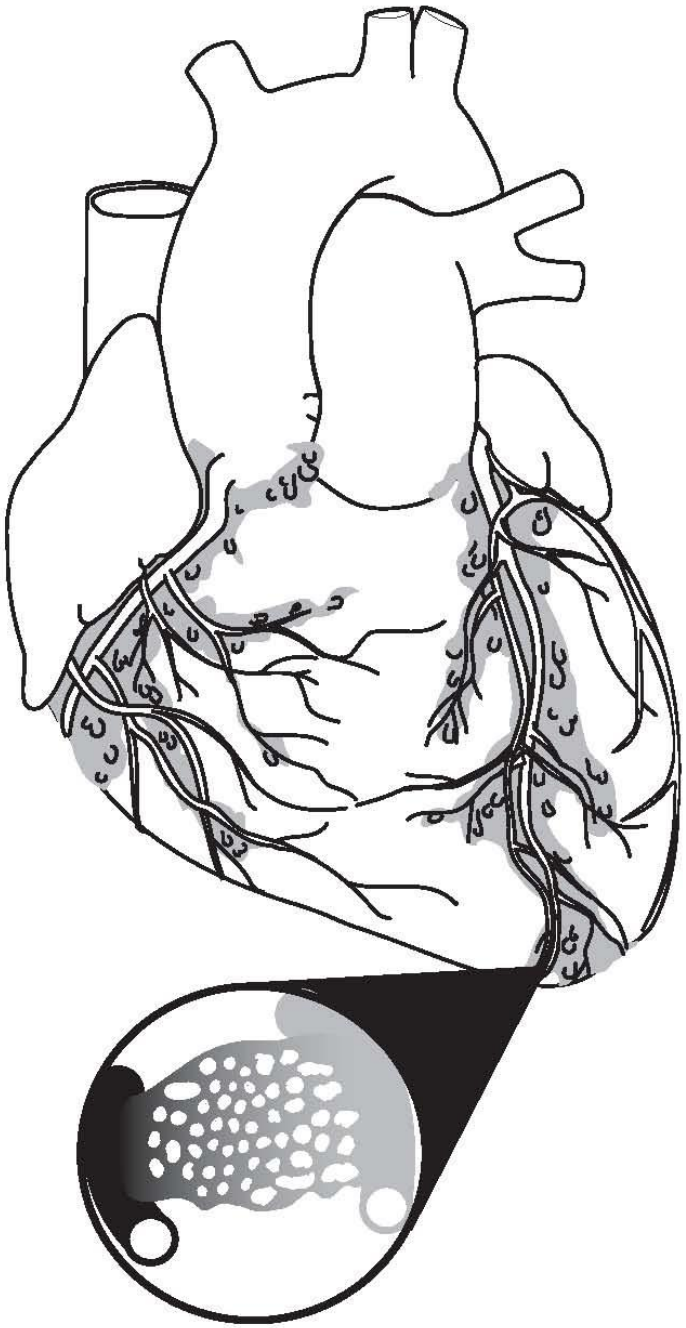
TEXAS HEART® INSTITUTE

Project Heart

Activities for the Classroom

ANATOMY
HOW TO FEED A HEART

Color and label the heart including the aorta, vena cava, right and left atria, and right and left coronary arteries, arteriole, venule and capillaries.



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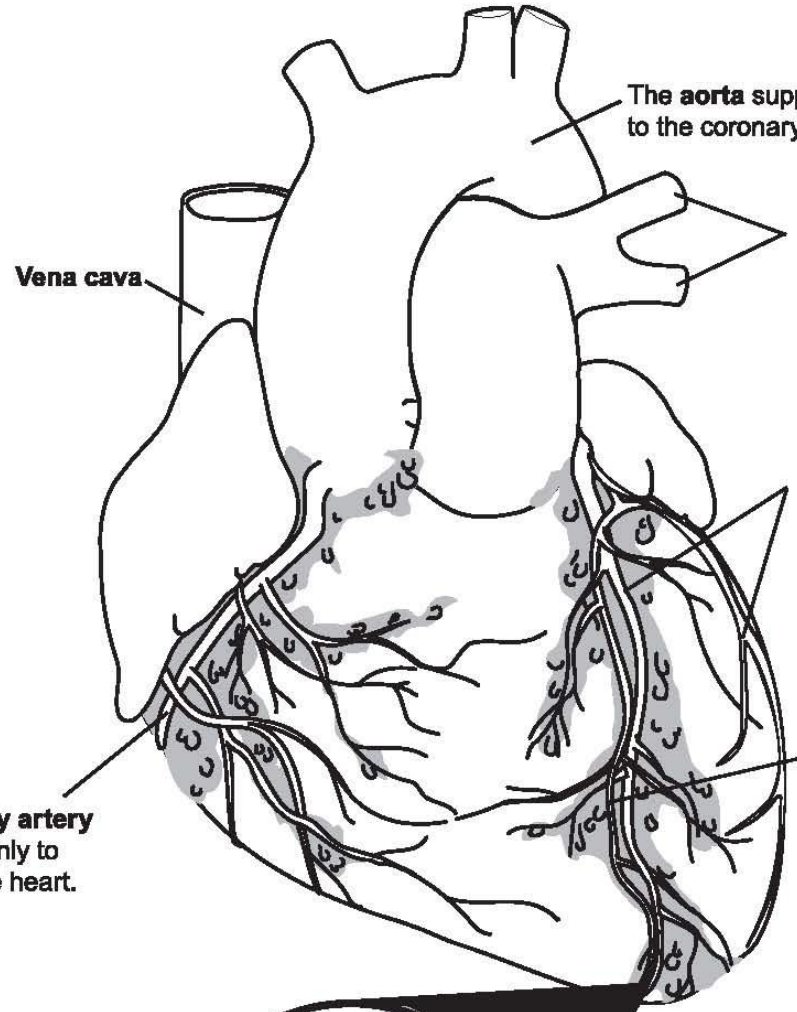
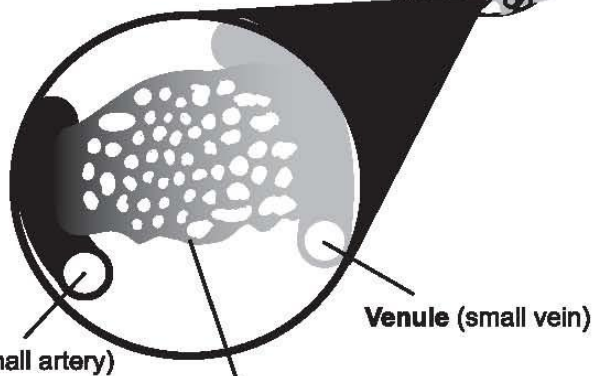
Project Heart
Activities for the Classroom

ANATOMY
"HOW TO FEED A HEART" GUIDE



The coronary arteries branch off to an arteriole, and then into a capillary where a blood cells gives its oxygen to a muscle cell.



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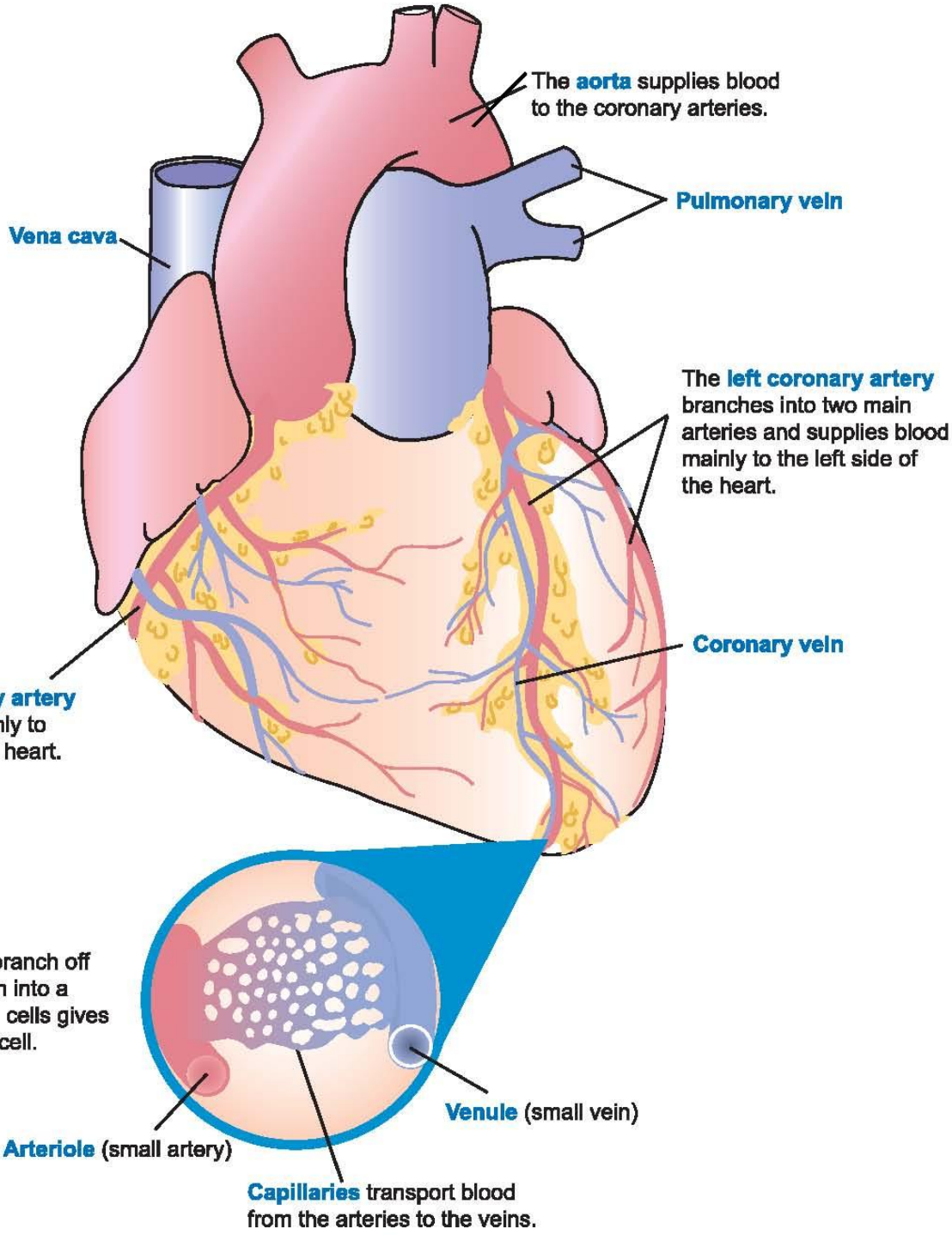
Project Heart
Activities for the Classroom

ANATOMY
"HOW TO FEED A HEART" GUIDE



Heart Vocabulary

- Aorta — Largest artery in the body
- Arteriole — Small artery
- Artery — Largest type of blood vessel; carries blood away from the heart to all parts of the body.
- Atrium — One of two upper chambers of the heart.
- Capillary — Smallest blood vessel.
- Diastole — Relaxation phase of the heartbeat.
- Electrocardiogram — Record of the electricity flowing through the heart.
- Endocardium — Inner lining of the heart
- Myocardium — Muscular, middle layer of the heart.
- Pericardium — Double-layered membrane surrounding the heart.
- Systole — Contraction phase of the heartbeat.
- Valve — Structure in veins or in the heart that temporarily closes an opening so that blood flows in only one direction.
- Ventricle — One of two chambers of the heart.

Heart Anatomy

The heart weighs between 7 and 15 ounces and is a little larger than the size of your fist. By the end of a long life, a person's heart may have beat (expanded and contracted) more than 3.5 billion times. In fact, each day, the average heart beats 100,000 times, pumping about 2,000 gallons of blood.

The Heart Valves

Four types of valves regulate blood flow through your heart:

- The tricuspid valve regulates blood flow between the right atrium and right ventricle.
- The pulmonary valve controls blood flow from the right ventricle into the pulmonary arteries, which carry blood to your lungs to pick up oxygen.
- The mitral valve lets oxygen-rich blood from your lungs pass from the left atrium into the left ventricle.
- The aortic valve opens the way for oxygen- rich blood to pass from the left ventricle into the aorta, your body's largest artery, where it is delivered to the rest of your body.