Title: Electrocardiogram K-W-L

Objectives

Students will be able to read for information about electrocardiograms.

Time frame to Complete

30 minutes

NRS EFL

4

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:					
		X				X			X														

Standard(s) Addressed in Lesson

Read with Understanding

Benchmark(s) Addressed in Lesson

R.4.1. Identify purposes for reading (for example, to generate and answer questions about a topic, to solve problems)
R.4.5. Use context clues (for example, cause and effect and compare and contrast relationships) to determine the meaning of words in texts.
R.4.8. Understand meaning of some specialized content vocabulary (for example, "constitution").
R.4.11. Apply, monitor and adjust comprehension strategies (for example, note subtle details in texts, pose questions about text) to understand text at an inferential level.
R.4.16. Construct meaning from text by evaluating relevance of prior knowledge and applying appropriate knowledge to new information read.

Materials

Electrocardiogram handout
K-W-L chart
Computer with internet access (optional)

Learner Prior Knowledge

Activities

Step 1 Distribute the K-W-L chart and explain to students the K-W-L reading strategy. Thinking about a topic and posing questions before reading is a study strategy that often helps people better understand and remember what they read. Students write what they already know about the topic (electrocardiograms) in the "K" column of the chart. Next, they write questions about the topic in the "W" column.

Step 2 Distribute the *Electrocardiogram* handout. Students read the handout independently.

Step 3 After reading, students complete the "L" column of the chart with answers to the questions in the "W" column and other information that they learned from the reading.

Step 4 Discussion may follow. If students' questions were not answered in the reading, students may search for the answers from another source such as http://www.americanheart.org/presenter.jhtml?identifier=3005172 or http://www.nlm.nih.gov/medlineplus/ency/article/003868.htm.

Assessment/Evidence

Completed K-W-L chart

Adaptations for Beginning Students

Beginning students may need to listen to the article rather than reading it independently.

Adaptations for Advanced Students

After completing the K-W-L chart, advanced students may write a summary of the reading based upon their notes.

Teacher Reflection/Lesson Evaluation

This lesson was created by Middletown ABLE.

Electrocardiogram

An electrocardiogram (commonly called EKG or ECG) is a process of measuring and recording the heart's electrical activity.

The heart is a muscular organ that has four chambers. The top two chambers are called atria, and the bottom two chambers are called ventricles. Electrical impulses cause the heart muscle to contract and move blood throughout the body. With each contraction, blood moves from the veins through the ventricles, to the atria, and then through the arteries into the body. An EKG is a simple, painless test to determine if there are irregularities in the heart's electrical activity.

During an EKG, small metal electrodes are placed on a person's wrists, ankles, and chest. The heart's electrical signals travel along wires from the electrodes to the EKG machine. The machine converts the signals to patterns of waves, and the waves are recorded on paper. This test takes approximately ten minutes. The results of an EKG show the heart rate and heart rhythm and can be used to identify problems such as arrhythmia, pericarditis, coronary artery disease, or heart failure.

Electrocardiograms are administered to people who have experienced chest pains and may be having a heart attack. It is often used during health screenings for people with an elevated risk of heart problems such as those with high blood pressure or a family history of heart disease or people who smoke. An EKG can also be used during surgery to monitor the functioning of the heart.

L	***K***	***W***
What I learned about an Electrocardiogram	What I know about an Electrocardiogram	What I **want** to know about an electrocardiogram