

**Multiple Intelligences
Unit Plan Template
EDUC 522**

Unit Title: Cardiovascular System		Teacher: Krista Wynn	
Grade Level: 9-12			
Subject: Health Careers 1 (elective)		Time Frame: 4 weeks	
<p>Objective(s): Students will:</p> <ol style="list-style-type: none"> 1. Describe and identify the anatomy/structures of the heart and major blood vessels. 2. Describe the electrical physiology of how a heartbeat is generated and the electrical pathway through the heart. 3. Understand the proper medical terminology of the heart anatomy, physiology, and related pathophysiology. 4. Identify the pathway of circulation of blood through the heart. 5. Identify which structures and chambers contain oxygenated blood and which contain deoxygenated blood. 6. Understand the significance of the heartbeat as seen on an electrocardiogram (ECG). 7. Identify the P wave, QRS complex, and T wave of a heartbeat in an ECG. 8. Identify eight 	<p>Intelligences:</p> <p>Visual/Spatial Logical/Mathematical Intrapersonal Interpersonal Naturalistic Kinesthetic Musical Verbal</p>	<p>Technologies:</p> <p><u>Students will have access to:</u></p> <ol style="list-style-type: none"> 1. Chromebooks 2. Smart phones 3. Tablets 4. Google Drive/Docs 5. Document Camera 6. CPR Manikins 7. Demo AEDs 8. Pocket Masks 9. Bag masks <p><u>Students will use:</u></p> <ol style="list-style-type: none"> 1. Chromebooks 2. Google Search Engine 3. Google Drive/Docs 4. Questgarden site: http://questgarden.com/172/96/0/140715123007/ 5. http://www.kidport.com/RefLib/Science/HumanBody/Cardiovascular/ 6. http://www.heart.org/HEARTORG/Conditions/More/HeartValveProblemsandDisease/ 7. https://www.youtube.com/watch?v=B9b_VCjI3n0 8. Youtube videos 9. DVDs: AHA CPR for Health Care Providers 10. PowerPoint 11. Prezi 12. Ipad apps: Quick Scan (QR Reader), 13. www.qrstuff.com 	<p>Standards (Content Standards and Technology Standards)</p> <p>Common Core Standards Addressed: Standards for Literacy in History/Social Studies, Science and Technical Subjects 6-12</p> <p>Reading Standards for Literacy in Science and Technical Subjects 9–12:</p> <p>Integration of Knowledge and Ideas</p> <p>8. Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p>Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 9–12</p> <p>Production and Distribution of Writing</p> <p>4. Produce clear and coherent writing in</p>

<p>different cardiac rhythms on an ECG and the significance of these rhythms.</p> <p>9. Research and present the etiology, signs and symptoms, diagnostic procedures, and treatments of a cardiac condition or disease.</p> <p>10. Identify modern advances in cardiac treatments such as stents, the use of 3D printers in cardiology, and medically induced hypothermia to treat post cardiac arrest patients.</p> <p>11. Demonstrate proficiency in performing CPR and become certified in CPR for Healthcare Providers.</p>			<p>which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.</p> <p>Research to Build and Present Knowledge</p> <p>7. Conduct short as well as more sustained research projects to answer a question (including a self generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p> <p>California CTE Standards: Health Science and Medical Technology</p> <p>B. Patient Care Pathway</p> <p>B2.0 Understand the basic structure and function of the human body and relate normal function to common disorders.</p> <p>B2.1 Know basic human body structure and function in relationship to specific care between prevention,</p>
---	--	--	---

			<p>diagnosis, pathology, and treatment.</p> <p>B2.3 Recognize common disease and disorders of the human body.</p> <p>B2.4 Compare normal function of the human body to the diagnosis and treatment of disease and disorders.</p> <p>B3.0 Know how to apply mathematical computations used in health care delivery system.</p> <p>B3.2 Analyze diagrams, charts, graphs, and tables to interpret health care results.</p> <p>Technology Standards Addressed:</p> <p>2. Communication and collaboration</p> <p>Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.</p> <p>a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media</p> <p>b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats</p> <p>3. Research and information fluency</p> <p>Students apply</p>
--	--	--	--

			<p>digital tools to gather, evaluate, and use information.</p> <ol style="list-style-type: none"> a. Plan strategies to guide inquiry b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks d. Process data and report results
<p>Materials: <u>Students will have access to:</u></p> <ol style="list-style-type: none"> 1. textbook 2. pens/pencils 3. paper 4. class notes 5. diagrams and posters 6. highlighters <p>Technology: <u>Students will have access to:</u></p> <ol style="list-style-type: none"> 1. Chromebooks 2. Smart phones 3. Tablets 4. Google Drive/Docs 5. Document Camera 6. CPR Manikins 7. Demo AEDs 8. Pocket Masks 9. Bag masks 			<p>Intelligences: <u>Students will access to:</u></p> <ol style="list-style-type: none"> 1. Verbal 2. Visual/spatial and kinesthetic 3. Verbal 4. Verbal and intrapersonal 5. Visual/spatial 6. Visual/spatial, kinesthetic, and logical <p>Technology</p> <p><u>Students will have access to:</u></p> <ol style="list-style-type: none"> 1. Intrapersonal, interpersonal, visual/spatial, naturalistic, logical, verbal, kinesthetic, and musical 2. Intrapersonal, interpersonal,

<p><u>Students will use:</u></p> <ol style="list-style-type: none"> 1. Chromebooks 2. Google Search Engine 3. Google Drive/Docs 4. Questgarden site: http://questgarden.com/172/96/0/140715123007/ 5. http://www.kidport.com/RefLib/Science/HumanBody/Cardiovascular/ 6. http://www.heart.org/HEARTORG/Conditions/More/HeartValveProblemsandDisease/ 7. https://www.youtube.com/watch?v=B9b_VCjI3n0 8. Youtube videos: https://www.youtube.com/user/theScienceguy12/videos https://www.youtube.com/watch?v=v3b-YhZmQu8 	<p>visual/spatial, naturalistic, logical, verbal, kinesthetic and musical</p> <p>3. Intrapersonal, interpersonal, visual/spatial, naturalistic, logical, verbal, kinesthetic, and musical</p> <p>4. Visual/spatial, verbal, intrapersonal, interpersonal, logical, naturalistic, and kinesthetic</p> <p>5. Verbal, visual/spatial, kinesthetic, naturalistic, and interpersonal</p> <p>6. Naturalistic, kinesthetic, interpersonal, intrapersonal, visual/spatial, logical/mathematical, musical</p> <p>7. Naturalistic, kinesthetic, interpersonal, intrapersonal, visual/spatial, logical/mathematical, musical</p> <p>8. Naturalistic, kinesthetic, intrapersonal, visual/spatial, logical/mathematical, musical</p> <p>9. Naturalistic, kinesthetic, interpersonal, intrapersonal, visual/spatial, logical/mathematical, musical</p> <p><u>Students will use:</u></p> <ol style="list-style-type: none"> 1. 1. Intrapersonal, interpersonal, visual/spatial, naturalistic, logical, verbal, kinesthetic, and musical 2. Intrapersonal, interpersonal, visual/spatial,
---	--

Bondi Beach Rescue: <https://www.youtube.com/watch?v=ICODRFoWZkw>

9. DVDs: AHA CPR for Health Care Providers

10. PowerPoint

11. Prezi

12. Ipad apps: Quick Scan (QR Reader) and Heart Pro III

13. www.qrstuff.com

naturalistic, logical, verbal, kinesthetic, and musical

3. Intrapersonal, interpersonal, visual/spatial, naturalistic, logical, verbal, and kinesthetic

4. Intrapersonal, visual/spatial, logical, naturalistic, verbal, kinesthetic, and musical

5. Intrapersonal, visual/spatial, logical, naturalistic, verbal, kinesthetic, and musical

6. Intrapersonal, visual/spatial, logical, naturalistic, verbal, kinesthetic, and musical

7. Intrapersonal, visual/spatial, logical, naturalistic, and musical

8. Visual/spatial, naturalistic, intrapersonal, musical, logical/mathematical, verbal

9. Intrapersonal, visual/spatial, verbal, musical, naturalistic

10. Visual/spatial, logical/mathematical, kinesthetic, intrapersonal

11. Visual/spatial, logical/mathematical, kinesthetic, intrapersonal

12. Interpersonal, intrapersonal, visual/mathematical, kinesthetic, naturalistic, logical/mathematical

13. visual/spatial, verbal, kinesthetic, intrapersonal, naturalistic, logical/mathematical

<p>Procedures: This unit plan is four weeks long. My high school is on a block schedule, so our class periods are 1 hour and 40 minutes long every other day. Therefore, this unit plan will have 2 class periods one week and then 3 class periods the following week. Due to the fact that we have long class periods, I usually plan the day with multiple activities to keep my students focused and interested.</p> <p>Week 1: Day 1: During the first 30 minutes of class, the teacher will introduce the new unit by playing the Bill Nye the Science Guy: Circulatory System via youtube: https://www.youtube.com/user/theScienceguy12/videos. Students will then take introductory notes on the functions and anatomy of the heart from the teacher generated PowerPoint. Students may use pen and notebooks, tablets, or laptops to take notes. After 20-30 minutes of note taking, students will use classroom Chromebooks to begin a webquest titled, Heart Valves, Past, Present, and Future, on Questgarden: http://questgarden.com/172/96/0/140715123007/. Students are instructed to read the introduction and task sections. They will complete Task #1, which includes viewing short videos on heart anatomy and blood flow and completing a heart anatomy labeling activity.</p> <p>Day 2: The teacher will introduce the CPR component of this unit by showing the following youtube video on an actual successful rescue using CPR: https://www.youtube.com/watch?v=ICODRFoWZkw. Students will be issued their pocket masks and spend an hour viewing the American Heart Association instructional DVD in segments with hands-on practice in between video segments. The students will learn how to recognize when someone needs CPR, learn how to perform chest compressions, learn how to perform ventilations using a pocket mask, and put these skills together while practicing on the adult CPR manikins. During the remainder 30 minutes of class, students will use the Chromebooks to complete Task #2 of the webquest from Day #1 which includes viewing a short video on heart valves and completing the Heart Valve Disorder table.</p> <p>Day 3: Students will take notes from teacher generated PowerPoint presentation on the electrical conduction of the heart (intro to EKG interpretation) for first 30 minutes of class. Students will view a youtube video on the components of an EKG titled, Anatomy & Physiology Online - Cardiac conduction system and its relationship with ECG: https://www.youtube.com/watch?v=v3b-YhZmQu8. Students will then complete a handout labeling the components of an EKG including: P wave, QRS complex, ST segment, and T wave, while also defining atrial depolarization, atrial repolarization and ventricular depolarization, and ventricular repolarization. Students will view the following sections of AHA CPR instructional DVD: 2 rescuer CPR using bag-mask ventilations and the use of the Automated External Defibrillator. Students will also practice hands-on skills for 2 rescuer CPR using the bag-mask for ventilations and the AED.</p> <p>Week 2: Day 1: The teacher will display the following website on the overhead projector: http://www.practicalclinicalskills.com/ekg-interpretation.aspx. Students will be introduced to this EKG website and it's components. As a whole class, we will review the EKG training component to</p>	<p>Visual/spatial, verbal, intrapersonal, naturalistic, and kinesthetic</p> <p>Visual/spatial, naturalistic, intrapersonal, interpersonal, musical, and verbal</p> <p>Visual/spatial, verbal, logical/mathematical, naturalistic, interpersonal, intrapersonal, musical, and kinesthetic</p> <p>Visual/spatial, logical/mathematical, naturalistic, interpersonal, intrapersonal,</p>

<p>learn about EKG paper, the components of an EKG, how to measure the rate, PR interval, and QRS complex, and recognize sinus rhythms. This will take about 20-30 and then students will use the Chromebooks to complete the practice drills independently for the training we did as a whole class. They will have 30 minutes to complete this. For the remainder 40 minutes, students will continue CPR instruction focusing on infant one rescuer CPR and demonstrating the correct finger placement for compressions and the correct use of the pocket mask.</p>	<p>musical, kinesthetic, and verbal.</p>
<p>Day 2: Students will continue with CPR instruction today focusing on two-rescuer infant CPR and reviewing one rescuer CPR for infants and one and two-rescuer CPR for adults. Students will watch instructional DVD and then spend 30 minutes practicing these skills. The teacher will then display the website: http://www.practicalclinicalskills.com/ekg-interpretation.aspx and show the students how to recognize the following rhythms: Normal Sinus Rhythm, Sinus Bradycardia, Sinus Tachycardia, Asystole, Ventricular Tachycardia, and Ventricular Fibrillation (20-30 minutes.) The remaining time in class will be spent playing a rhythm recognition game. Students will be placed in groups of five. Each student will get a rhythm on the screen to identify. The student will earn a point for his group if he is correct and lose a point if he is wrong. The winning group gets 5 points extra credit.</p>	<p>Interpersonal, intrapersonal, visual/spatial, logical/mathematical, kinesthetic, naturalistic, and musical.</p>
<p>Week 3:</p>	<p>Interpersonal, kinesthetic, naturalistic, interpersonal, and visual/spatial.</p>
<p>Day 1: To review the anatomy of the heart, students will work in groups of 3 using iPads and the Heart Pro III app. They will do a swipe across the screen to get the crosssectional view of the heart and then use the pin feature to label the anatomy of the heart: superior vena cava, inferior vena cava, right atrium, left atrium, right ventricle, left ventricle, tricuspid valve, bicuspid valve, interventricular septum, aortic valve, pulmonary valve, pulmonary veins, pulmonary arteries, and aorta. The teacher will assess the group's ability to complete all the labels. This activity should take no longer than 30 minutes. The remaining class time will be spent finishing the instructional DVD and learning how to manage obstructed airways in infants, children, and adults.</p>	<p>Visual/spatial, intrapersonal, interpersonal, kinesthetic, naturalistic, and verbal.</p>
<p>Day 2: Today will be spent focusing on modern advancement in cardiology. Show students the DVD, Dying to Stay Alive, After viewing the DVD, the class will spend 10 minutes in small groups discussing the topic of induced hypothermia in post cardiac arrest patients. Then students will use the Chromebooks to complete Task #3 and #4 on the webquest they started at the beginning of this unit: http://questgarden.com/172/96/0/140715123007/ which includes viewing video clips on biological and mechanical heart valves, heart valve surgery, and the use of 3D printers in cardiology. They will also read an article on 3D printers. After they view the video clips and read the article they will start a reflective essay on Google Docs covering the following criteria:</p>	<p>Visual/spatial, intrapersonal, interpersonal, kinesthetic, naturalistic, and verbal.</p>
<ol style="list-style-type: none"> 1. What are the differences, advantages, and disadvantages of the different type of heart valves? 2. Why do some people require heart valve replacement? 3. Which type of heart valve do you believe to be the best choice for most patients and why? 	<p>Visual/spatial, intrapersonal, interpersonal, kinesthetic, naturalistic, and verbal.</p>
<p>This essay will be typed in APA or MLA format.</p>	<p>Visual/spatial, intrapersonal, interpersonal, kinesthetic, naturalistic, and verbal.</p>
<p>Students will finish the essay at home and turn in during the next class period.</p>	<p>Visual/spatial, intrapersonal, interpersonal, kinesthetic, naturalistic, and verbal.</p>
<p>Day 3: The teacher will then display the website: http://www.practicalclinicalskills.com/ekg-interpretation.aspx and show the students how to recognize the following rhythms: Atrial Fibrillation, Atrial Flutter, and Supraventricular Tachycardia. The rhythms taught last week will also be reviewed. After a 30 minutes review of all rhythms, students will use the Chromebooks and complete the practice quiz on the same website. They will have 15 minutes to complete the quiz and report their score. When the cardiac rhythm quiz is complete students will be assigned a cardiovascular disease/disorder to research. They will use the Chromebooks to find the following information about their disease/disorder: etiology, signs and symptoms, diagnostic tests used to diagnose and determine the extent of the disease, any arrhythmias associated with it, and treatments</p>	<p>Visual/spatial, logical/mathematical, intrapersonal, naturalistic, musical, and verbal.</p>

for it. They must take notes on all the information needed. They have the remaining class time to do their research. The research will be used for their culminating task in this unit.

Week 4:

Day 1: The students will spend the first 30-45 minutes of class reviewing for and then taking the AHA written test (25 multiple choice questions.) After the written test is done, students will complete their research on their cardiovascular disease using the Chromebooks. Students will then use Google Docs to create a doctor's note on a fictional patient who has their assigned cardiovascular disorder. They need to include patient history (students will determine their own patient's history using prior knowledge of the disease process for the diagnosis; be creative, yet realistic), signs and symptoms, diagnostic tests, treatment (surgical note), cardiac rhythm, and the patient's prognosis. After the doctor's note is complete, they need to download a QR code reader app on their smartphone. They will also create a QR code for their doctor's note on www.qrstuff.com. While students are working on this assignment independently, the teacher will be pulling students in groups of 8 to do CPR skills testing.

Day 2: The teacher will present the Glogster website to students and demonstrate how to use the site to create a digital poster. Students will be creating a digital poster for their cardiovascular disorder that will include: etiology, signs and symptoms, treatments, any cardiac dysrhythmias associated with their disease/disorder, pictures, the QR code for their doctor's note, and a video link. Students will work on this culminating project while the teachers completes the CPR skills testing. Students will have to complete their poster as homework and will present their poster to the class next week.

Intrapersonal, interpersonal, naturalistic, verbal, kinesthetic, musical, logical/mathematical, and visual/spatial.

Visual/spatial, intrapersonal, interpersonal, naturalistic, musical, logical/mathematical, verbal, and kinesthetic.

<p>Product:</p> <ol style="list-style-type: none"> 1. Reflective essay on heart valves from week 3 day 3. 2. Glogster Poster <p>See below for rubrics on separate page.</p>	<ol style="list-style-type: none"> 1. Verbal, naturalistic, and intrapersonal. 2. Intrapersonal, interpersonal, logical/mathematical, naturalistic, verbal, visual/spatial, kinesthetic, and musical.
<p>Presentation Ideas and Notes: PASTE URL TO FINAL VIDEO HERE</p> <p>https://www.youtube.com/watch?v=aMd9aagOIFs</p>	

Product 1 Rubric: Essay on Heart Valves

CATEGORY	4	3	2	1
Introduction (Organization)	The introduction is inviting, states the main topic and previews the structure of the paper.	The introduction clearly states the main topic and previews the structure of the paper, but is not particularly inviting to the reader.	The introduction states the main topic, but does not adequately preview the structure of the paper nor is it particularly inviting to the reader.	There is no clear introduction of the main topic or structure of the paper.
Support for Topic (Content)	Relevant, telling, quality details give the reader important information that goes beyond the obvious or predictable.	Supporting details and information are relevant, but one key issue or portion is unsupported.	Supporting details and information are relevant, but several key issues or portions are unsupported.	Supporting details and information are typically unclear or not related to the topic.
Accuracy of Facts (Content)	All supportive facts are reported accurately.	Almost all supportive facts are reported accurately.	Most supportive facts are reported accurately.	NO facts are reported OR most are inaccurately reported.
Capitalization & Punctuation (Conventions)	Writer makes no errors in capitalization or punctuation, so the paper is exceptionally easy to read.	Writer makes 1 or 2 errors in capitalization or punctuation, but the paper is still easy to read.	Writer makes a few errors in capitalization and/or punctuation that catch the reader's attention and interrupt the flow.	Writer makes several errors in capitalization and/or punctuation that catch the reader's attention and greatly interrupt the flow.
Flow & Rhythm (Sentence Fluency)	All sentences sound natural and are easy-on-the-ear when read aloud. Each sentence is clear and has an obvious emphasis.	Almost all sentences sound natural and are easy-on-the-ear when read aloud, but 1 or 2 are stiff and awkward or difficult to understand.	Most sentences sound natural and are easy-on-the-ear when read aloud, but several are stiff and awkward or are difficult to understand.	The sentences are difficult to read aloud because they sound awkward, are distractingly repetitive, or difficult to understand.
Sentence Structure (Sentence Fluency)	All sentences are well-constructed with varied structure.	Most sentences are well-constructed with varied structure.	Most sentences are well-constructed but have a similar structure.	Sentences lack structure and appear incomplete or rambling.

Focus on Topic (Content)	There is one clear, well-focused topic. Main idea stands out and is supported by detailed information.	Main idea is clear but the supporting information is general.	Main idea is somewhat clear but there is a need for more supporting information.	The main idea is not clear. There is a seemingly random collection of information.
Conclusion (Organization)	The conclusion is strong and leaves the reader with a feeling that they understand what the writer is "getting at."	The conclusion is recognizable and ties up almost all the loose ends.	The conclusion is recognizable, but does not tie up several loose ends.	There is no clear conclusion, the paper just ends.

Product 2: Glogster Poster

Making A Poster : Glogster Poster on Cardiovascular Disease/Disorder

Teacher Name: **Mrs. Wynn**

Student Name: _____

CATEGORY	4	3	2	1
Content - Accuracy	All 7 required components are displayed on the poster: etiology, sign and symptoms, treatment, dysrhythmia, QR code, pictures, and video clip.	5-6 required components are displayed on the poster.	3-4 required components are displayed on the poster.	Less than 3 required components are displayed on the poster.
Attractiveness	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed. It is not attractive.
Mechanics	Capitalization and punctuation are correct throughout the poster.	There is 1 error in capitalization or punctuation.	There are 2 errors in capitalization or punctuation.	There are more than 2 errors in capitalization or punctuation.

Grammar	There are no grammatical mistakes on the poster.	There is 1 grammatical mistake on the poster.	There are 2 grammatical mistakes on the poster.	There are more than 2 grammatical mistakes on the poster.
----------------	--	---	---	---