| ***Health Grade 12 Unit 12: Cardiac Emergencies: CPR******February*** |
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| **Targeted Standards** **2020 New Jersey Student Learning Standards – Comprehensive Health and Physical Education** **2.3 Safety by the End of Grade 12** **Personal Safety** Consideration of the short- and long-term impact of decisions can assist individuals in determining whether a choice is likely to result in healthy or unhealthy consequences. • 2.3.12.PS.1: Apply a thoughtful decision-making process to evaluate situations and influences that could lead to healthy or unhealthy consequences (e.g., peers, media). **Health Conditions, Diseases and Medicines** Health-enhancing behaviors can contribute to an individual reducing and avoiding health risks. • 2.3.12.HCDM.1: Develop a health care plan to help prevent and treat diseases and health conditions one may encounter (e.g., breast/testicular exams, Pap smear, regular STIs testing, HPV vaccine). Medicines treat or relieve diseases or pain and are prescribed by a physician or accessed over the counter.• 2.3.12.HCDM.2: Provide examples of how drugs and medication mimic or block the action of certain cells in the body, and how abusing drugs can affect the human body.• 2.3.12.HCDM.3: Evaluate the benefits of biomedical approaches to prevent STIs (e.g., hepatitis B vaccine, HPV vaccine) and HIV (e.g., PrEP, PEP). Public health policies are created to influence health promotion and disease prevention and can have global impact. • 2.3.12.HCDM.4: Evaluate emerging methods to diagnose and treat diseases and health conditions that are common in young adults in the United States and in other countries (e.g., hepatitis, stroke, heart attacks, cancer,). • 2.3.12.HCDM.5: Analyze local, state, and international public health efforts to prevent and control diseases and health conditions (e.g., vaccinations, immunizations, medical exams, gene editing, artificial organ systems, prosthesis). Mental health conditions affect individuals, family members, and communities. • 2.3.12.HCDM.6: Analyze and discuss the evidence of the emotional and social impact of mental health illness on families, communities, and states (e.g., depression, anxiety, Alzheimer’s, panic disorders, eating disorders, impulse disorders).

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| Rationale and Transfer Goals:This unit is designed to save a person's life from a heart attack. Students will be able to quickly identify signs of heart related emergencies and give treatment until further help arrives. Understanding how the heart and its electrical system works will play a major role in saving a life. |
| Enduring Understandings: The cardiac chain of survival.Signs and symptoms of heart attacksHow CPR pumps oxygen through the body.Use of an AED |
| Essential Questions: What are health risks for your heart?How can you improve your cardiovascular health?Why is early CPR and AED use important to saving someone’s life? |
| **Content/Objectives** | **Instructional Actions** |
| ***Content******What students will know*** | ***Skills******What students will be able to do*** | ***Activities/Strategies******How we teach content and skills*** | ***Evidence (Assessments)******How we know students have learned*** |
| How the hearts' electrical system works.Signs of a heart attackCPR; adult-child-infantAED; adult-child-infantUnconscious choking victims | Demonstrate basic CPRDemonstrate effective use of an AED |  Video: " The Heart and its Electrical System"Skills practice of CPRSkills practice of AEDSkills practice unconscious choking. |

| PerformanceSummative: DramatizationStudents will be graded on performance of CPR scenarios and AED use |
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| Test and QuizzesFormative: Written TestStudents will be given quizzes and a standard test from the Red Cross Organization |
| ParticipationSummative: Sample Assessment ItemStudents will be graded on effective use of practice time on Manikins and participating in class scenarios. |

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| **Spiraling for Mastery** |
| ***Content or Skill for this Unit*** | ***Spiral Focus from Previous Unit*** | ***Instructional Activity*** |
| Defining what “emergencies” are.Identifying victimsCommunicating signs and symptoms of emergencies and victimsHow and when to give proper careValue of saving livesEffective CPR | Team building Effective communicationCooperative gamesLiteracy activities  | Health literacy activitiesGroup scenarios Manikin demonstrationsPerformance tasks on manikinProjects on disease and transmission  |
| **21st Century Skills:** **CRP3. Attend to personal health and financial well-being.**Unit focus on personal healthCross-cutting discussions of financial costs and benefits to lifelong fitness**CRP6. Demonstrate creativity and innovation.**Creativity in development of workout plans for variety and maintaining interest**CRP11. Use technology to enhance productivity.**Use of online and mobile technology to support lifetime health and fitness goals **CRP12. Work productively in teams while using cultural global competence.**Students will work in small groups to create, problem solve, and participate in games**CRP4. Communicate clearly and effectively and with reason.*** all aspects of course
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| **Key resources:**  Red Cross Organization Participant Book.Red Cross DVD; CPRManikins; Adult-child-infantAutomated external defibrillators- practice versionmats or blanketsDisposable breathing barriersDisposable gloves |
| **Interdisciplinary Connections****ELA****NJSLSA.R1**. Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.**NJSLSA.R7.** Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.**RH.11-12.7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, qualitatively, as well as in words) in order to address a question or solve a problem.** **RST.11-12.2.** Determine the central ideas, themes, or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.**RST.11-12.3.** Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.**RST.11-12.7.** Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.**NJSLSA.W4.** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.**NJSLSA.W7.** Conduct short as well as more sustained research projects, utilizing an inquiry-based research process, based on focused questions, demonstrating understanding of the subject under investigation. * standards supporting written and print communication across all areas of the course

**Science****HS-LS1-3.** Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis. [Clarification Statement: Examples of investigations could include heart rate response to exercise]**HS-LS2-3.** Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.**HS-LS2-8.** Evaluate evidence for the role of group behavior on individual and species’ chances to survive and reproduce.* Connections to study of exercise physiology and associated anatomy
* Basic understanding of communicability of diseases in discussion of wellness

**Math****Creating Equations A -CED**A. Create equations that describe numbers or relationships. 1. Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.***Modeling with Geometry G-MG**A. Apply geometric concepts in modeling situations. 1. Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).**Interpreting Categorical and Quantitative Data S-ID N-ILN**A. Summarize, represent, and interpret data on a single count or measurement variable1. Represent data with plots on the real number line (dot plots, histograms, and box plots).**Making Inferences and Justifying Conclusions S-IC**B. Make inferences and justify conclusions from sample surveys, experiments, and observational studies* math processes related to fitness and health data, geometry in gameplay, and quantitative representations
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