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| **Lesson Name:** | **STEAM Careers Webquest and Exploration Unit** |
| **Grade Level(s):** | 9-12 |
| **Goal/Objective(s):** | Students will be able to discuss careers within the STEAM fields. Students will explore careers within the STEAM fields.  Students will create informative Public Service Announcements through images, words, and explanation that incorporate research from multiple sources, reach the intended audience, and use various communication techniques to express a clear, accurate message that promotes STEAM careers. |
| **Standard(s):** | **Technology Standards:**  21C.O.9-12.1.TT1 Student makes informed choices among available advanced technology systems, resources and services (e.g., global positioning software, graphing calculators, personal digital assistants, web casting, online collaboration tools) for completing curriculum assignments and projects and for managing and communicating personal/professional information.  21C.O.9-12.1.TT4 Student uses audio, video, pictures, clip art, moviemaker programs, webpage design software, electronic documents and other files to collaborate for the creation of electronic products that inform multiple audiences both inside and outside the school environment.S.6-8.L.16 Student conducts short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.  21C.O.9-12.1.TT7 Student uses advanced features and utilities of presentation software (e.g., slide transitions, master slides, narrations and timings, creating web-enabled presentations, creating a non-linear presentation) to communicate ideas to multiple audiences.  21C.O.9-12.2.TT2 Student collaborates with peers, experts and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce, and disseminate information, models, and other creative works.  **School Counseling – Student Success Standards:**  **ALP.SS.2.1.1** use a variety of resources to explore career options in relation to personal abilities, skills, interests, values and the current job market.  **ALP.SS.2.1.2** evaluate roles, responsibilities and requirements for progressions of career levels from entry to advanced positions.  **ALP.SS.2.1.7** model expected workplace dispositions, skills and behaviors in school, community and occupational experiences to prepare for career success. |
| **Instructions:** | Day 1:  • Bellringer: If you could have any career, what would it be and why?  • View "What do you desire?" by Alan Watts <https://vimeo.com/60087670>  • Teacher Q&A: What are STEAM careers? What careers require STEAM skills? How do professionals acquire the skills required to work in a STEAM field? Do you know anyone who works in a STEAM field? What does the “A” in STEAM represent?  • Introduction (if necessary) to cfwv.com website  • Students login in with their user name and password  • Distribute “STEAM Careers Webquest” handout to all students  • Individually, students complete “STEAM Careers Webquest” handout  Day 2:  • Bellringer: Do you know anyone who works in a STEAM field? Where did he/she go to school? What did he/she major in?  In groups of 2, students complete second page of webquest by exploring 2 careers in STEAM fields.  Day 3:  • Bellringer: What is a Public Service Announcement (PSA)? Write down two PSAs that you have seen recently (either on TV or billboard)  • With student input, write a classroom definition for PSA  • What is a storyboard? Who uses storyboards? For what purpose?  • Choose several PSAs to watch as a class. Students should extrapolate the following information 1) slogan 2) target audience 3) emotional appeal 4) statistical data  • In groups of 2, Students brainstorm (based on webquest) STEAM career(s) that they wish to highlight in their PSA  • Students begin work on PSA, using the storyboard as the starting point  Days 4-5:  • Students complete all aspects of their storyboard  • Students begin composing PSA using Animoto account |
| **Materials:** | Handout for webquest, handout for rubric for PSA, handouts for storyboards  cfwv.com  Photosforclass.com  Animoto.com (teacher accounts are free)  <https://vimeo.com/60087670>  <https://animoto.com/education/classroom>  <http://www.adcouncil.org/Our-Campaigns>  <http://engineeringforkids.com/article/02-02-2016_importanceofstem>  <http://www.ed.gov/stem> |
| **CFWV Tools Used:** | Cfwv.com website, including “Learn About Yourself” Interest Profiler and Careers, “Career Planning,” “Explore Careers,” including descriptions, working conditions, and working hours and travel requirements. |
| **Assessment:** | Students will be assessed based on their ability to complete the webquest handout, create a well-developed storyboard and present an Animoto video exploring and promoting STEAM careers following the rubric. |