Research Project: Water Industry Careers

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1-2 Sentence Lesson Summary

Students will be researching a career path in the water industry. They will choose from a list of occupations, research the career and explain the importance of the position. Students who choose the same job will be encouraged to collaborate.

<u>Driving Question</u> that Students Will Explore

What is the most important career in the water industry?

Water Industry Connection (e.g., an industry-related career, skill, or challenge; addresses reducing water pollutants, conserving water resources, and/or inspiring watershed stewardship)

This will highlight industry-related careers and pathways to get there.

Learning Goals: Make sure to address how your lesson will:

- Involve your students in a Community Environmental Action
- Develop Critical Thinking Skills (e.g. CERs, Student Inquiry)

Students will be able to... create a Google Slides about a water industry career, explain what the job entails, why it's important and present it to the class. Students will be able to

Instructional Outline: This should be the bulk of your writing. Bullets of what the students will do throughout the lesson to reach the learning goals you have set.

Hook/Intro...

6 minute video about water careers

I want the students to have an introduction to the industry. They need to see it in action before they can choose a career to research. Students will then sign up for the category they think is the most important, so I can group students with similar interests. (Lab Science, Mechanical, Engineering/Design, Computers, Human Resources, Maintenance, Environmental Science) I will be able to help them focus in pairs on one occupation based on their choice of category. During...

This is an extended lesson due to the need for technology support and will relate to our water unit in Science. I am using this lesson, as a beginning of the year assignment, to teach students step by step how to create/edit a Google Slides presentation. I try to embed skill building into my lessons wherever I can.

Step 1: Google Classroom

All copies and links will be attached to the Google Classroom assignment.

Using a physical copy of the research Doc (handout), students will work in pairs to do

research together. One partner will be using a Chromebook and the other will be writing down the information on the common job they chose.

I will be introducing the Google Assignment and all of the components. I will show them which links to use for each part and we will go through the handout together so they all know what they are trying to find. I will then walk around to check in with each group. I am looking for their choice, can they access the materials, and guide themselves around the site to help them find their career.

Step 2: Google Slides

This step will take a few days since I will be teaching them how to use the tools embedded in Google Slides. We will create a slide a day using the information they gathered and the prompts on each slide. I have a copy that I will be demonstrating how to insert pictures, how to change the background, how to add text boxes and graphics. After I have shown them a few different times, they will get to build their own. Partners will share information they gathered and work together to build a slideshow for a presentation. I will be walking around to monitor and help.

Step 3: Final Slide

The last slide is where students explain why their job is the most important. I had them pick the most important category first so they would be able to discuss the reasons with their partner and together decide the importance of their career.

Step 4: Present

Students will present their career to the class. They will each be expected to present slides by taking turns or one starting and the other finishing the talking.

Reflection...

The final slide is the students' chance to explain why they think their occupation is important. They will be presenting it to the class and this reflection on why it's an important career is part of their presentation.

Standards: Common Core, NGSS, CTE, GoalBook or another state or national list.

Common Core ELA/ Literacy

RI.5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

WS.5.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information. a) Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. b) Provide logically ordered reasons that are supported by facts and details.

WS.5.6 With guidance and support from adults, use technology, including the internet, to produce and publish writing as well as to interact and collaborate with others

WS.5.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic

WS.5.8 Recall relevant information from experiences or gather relevant information for print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources

SL.5.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. a) Plan and deliver an opinion speech that: states an opinion, logically sequences evidence to support the speaker's position...and provides a

concluding statement related to the speaker's position.

SL.5.5 Include multimedia components (eg. graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.

Assessment: How will you check your students' understanding? Check out these <u>creative</u> <u>assessments</u> if helpful.

The assessment will be geared towards the ELA standards I have listed above. I will be using both the slideshow and the in-class presentation as evidence for both written and speaking standards. I will be looking for a sequential structure of information, facts and details from multiple sources, and the ability to present it. Each part will receive a separate grade. I have attached a grading rubric below.

Materials/Resources

Careers in Water Website

This website is what students will use to research a wide variety of jobs within the local water industry.

Contra Costa Water District Job Descriptions

This website is where students will find information about a local position for the job they chose to research.

- Research Water Industry Occupations Template
- Research: Water Industry Career Handout
- Water Industry Career Research Project Rubric