Module 4: Careers in Water

Activity and Video Guide

This module is intended for high school students.

Concepts covered in informational Powerpoint:

* Career Paths in Water
* Job Descriptions of:
  + Drinking Water/Wastewater Treatment Operator
  + Water Maintenance Worker
  + Water Engineer
* Introduction to RIASEC Career Quiz

Activity #1: Career Paychecks

Framing question/framing concept: Consider various career options in the water treatment career field.

Time: 10 minutes

Materials Needed:

* Printed copies of the all of the career paychecks. The cover page and the three careers can be stapled together as a packet. There should be one packet per student.

Steps:

1. Hand out a career paycheck “packet” to each student.
2. Explain, “These career paychecks give you a few different career options in the water treatment industry, to show you how much money you would make in these jobs, what the education requirements are, how many job openings there are, etc. We pulled together career options with a variety of education levels, to show that you can support your family no matter what your education path may be.”
3. Direct the student’s attention to the cover sheet on the front of each packet. Explain, “This is Vermont-specific data to show you how much money it takes to support different family types in Vermont.” Ask, “What do you notice? Does anything surprise you?”
4. Allow time for the students to discuss.
5. Wrap up the discussion. Explain, “It can be helpful to see what it takes to financially support different family types in Vermont. As you choose post-secondary paths after high school, consider, what job do you want? What educational level do you actually need for that job? Does that job have a lot of predicted job openings? Does that job offer a livable wage?”

Activity #2: RIASEC Career Quiz

Framing question/framing concept: Which career path is right for you?

Time: 20 minutes

Materials Needed:

* RIASEC Career Quiz
* RIASEC Results Page
* Writing Utensil

Steps:

1. Pass out the RIASEC career quiz and explain that this will help students get a better understanding of what career path they may want to follow in the future. Remind them that there are no wrong answers.
2. Give them a few minutes to fill out the quiz
3. Once they are done, they will add up the number of filled in circles in each column and then add the two columns together for a grand total for each letter (RIASEC).
4. Discuss the results of the RIASEC test as a group or in pairs. Point out how certain character traits lead to success in different fields. Did students discover something new about themselves? Are there fields they are now considering that they hadn’t before?
5. Have a brainstorming session to think about steps students can take to discover and learn more about their specific career interests, or their own strengths (additional strengths and interest assessments, job shadows, informational interviews, courses/classes, etc.), and have them make a list of what next steps they want to pursue.
6. Encourage students to research their careers so they can plan for their path early!

Video #1: Zoom-a-Scientist: Burlington’s Water Resources

Video link: <https://www.youtube.com/watch?v=GSEDSYkZnCg> (watch from 4:53 – 15:35 minutes)

Framing: In this video clip, Megan Moir describes her job and how she got into this career field. Megan is the Water Resources Division Director for the City of Burlington Public Works Department.

Discussion questions:

1. What drew Megan to this career field?
2. What is one thing you learned about this career that you didn’t know before?
3. What would you like to learn more about in this career field? What step could you take to learn more?

Video #2: Champlain Water District Tour

Video link: <https://www.youtube.com/watch?v=_MZSiTHDGGo> (length: 9:45 minutes)

Framing: This video takes students on a virtual tour of the Champlain Water District, in which they see the many components of how water becomes potable. Additionally, it allows students to see the many careers involved in water treatment.

Discussion questions:

1. Can you see yourself working in this environment? Why or why not?
2. What is one thing you learned about this career field that you didn’t know before?
3. What would you like to learn more about in this career field? What step could you take to learn more?

Video #3: South Burlington Wastewater Treatment Facility Tour

Video link: <https://www.youtube.com/watch?v=Y3-P_Lm36K8> (Length: 5:57 minutes)

Framing: This video takes students on a virtual tour of the South Burlington Wastewater Treatment Facility. It shows the process by which wastewater becomes clean and is released back into the river.

Note to teacher: This video is applicable to the Careers in Water lesson and the Stormwater and Wastewater lesson, although the discussion questions will differ. You may choose to show the video with either of these two lessons.

Discussion questions:

1. Can you see yourself working in this environment? Why or why not?
2. What is one thing you learned about this career field that you didn’t know before?
3. What would you like to learn more about in this career field? What step could you take to learn more?

Video #4: Groundwater Careers

Video link: <https://www.youtube.com/watch?v=X9cxkgScizw> (Length: 5:18 minutes)

Discussion questions:

1. Do any of these careers sound interesting to you? Why or why not?
2. What is one thing you learned about this career field that you didn’t know before?
3. What would you like to learn more about in this career field? What step could you take to learn more?