

New England Water Works Association Youth Education Committee Classroom Module

Career Education

Summary and Objective

High School teachers often turn to industry professionals for information about careers in their field, especially with respect to a path to those careers (i.e. which degrees are most likely to lead to a job). In addition, an increasing number of students are choosing trades careers because of the general shortage of tradespeople, and because the debt for a 4-5 year college degree is daunting. Currently, a large number of jobs in the water utility profession are held by a graying workforce. Many positions will need to be filled as these water employees retire.

The goal of this module is to provide introductory information about the variety of careers related to the environment, including water utilities. Positions include those in STEM fields: Science, Technology, Engineering, and Math. An ancillary goal is to entice interested and talented students to pursue a water-related career.

Applicable Curriculum Standards

Maine Learning Results, Chapter 132; Career and Education Development NGSS ETS1, Cross-Cutting Concepts

Recommended Grade Level(s)

9-12

Time Required

1 to 2 class sessions per lesson; may be extended using supplemental resources

Materials and Facilities Required

- Projector and screen
- Clips for attaching information cards to students
- Items such as beads, paperclips, or markers for marking spots in a bingo game (25 for each student)
- Copies of Bingo Cards 40 different cards included
- Copies of slides describing a career- 52 career slides

Module Contents

- 1. Module cover
- 2. Activity descriptions and activity instructions, and set of bingo cards
- 3. PowerPoint presentation describing 52 careers in the water profession (first slide)
- 4. Online resources for additional information

Acknowledgements

This module was adapted from Environmental Careers Classroom Activity by the Ohio EPA Office of Environmental Education.



New England Water Works Association Youth Education Committee Classroom Module

Careers Education

Environmental Careers Classroom Activity Instructions

This activity introduces 52 different environmental careers, each with an example of something a person with that career might do. The activity can be presented in two ways, as a bingo game or an interactive guessing game. Download career slides, bingo cards, and other resources on environmental careers at http://epa.ohio.gov/oee/EnvironmentalEducation.aspx under the environmental education tab, "environmental education resources" link.

Environmental Careers Bingo

Print out as many bingo cards as you need from the set of 40 posted online, printing one or two cards per page. Gather enough beads, paper dots or other small items to use as markers. Give each student a bingo card and up to 24 markers. As you show each slide, have a student read the example of what a person in that career might do. (Note that the examples are only on the slides, not on the bingo cards.) As each slide is visible on the screen, students place a marker bead to cover that career if it shows on their card. The first student who covers five in a row horizontally, vertically or diagonally wins.

"What's My Career?" Mixer

Print slides two to a page, cut apart, and use small binder clips or tape to fasten a different career card to each student's back so the student cannot see the picture and example. Have students move around the room asking each other one yes-or-no question to try to figure out what their mystery career is.

Sample questions might be: "Do I work outside?" "Do I work with animals?" "Do I need special clothes?" Students should sit down when they think they have guessed their career. Once most students are sitting, have each read the example from their career card, and tell the class what they might like or not like about that career.

Extension Activity

Have students view the slides, and select an environmental career they'd like, along with a career they did not know existed. Have students research the salary and training requirements for their two careers, starting with the US Bureau of Labor Statistics <u>http://www.bls.gov/ooh/home.htm.</u>

Contact Will Walkup at <u>walkupw@bv.com</u> or the New England Water Works Association with any questions or feedback, or for more information.

B		N	G	0
Biological Science Technician	Biological Laboratory Technician	Geoenvironmental Scientist	Urban and Regional Planner	Soil Scientist
Microbiologist	Wildlife Educator	Energy Consultant	Risk Assessor	Hydrogeologist
Civil Engineer Solid Waste Management	Civil Engineer Wastewater Treatment	Free Space	Arborist, Urban Forester	Wildlife Biologist
Geologist	Game Warden, Wildlife Officer	Naturalist	Environmental Scientist: Drinking Water	Soil Conservationist
Communications Specialist	City/County Recycling Coordinator	Solar Energy Technician	Biologist	Environmental Engineer

IN G Environmental **Pollution Control** Soil Energy Emergency Scientist: Equipment Conservationist Consultant Responder **Drinking Water** Technician Certified Environmental **Risk Assessor** Hydrogeologist Operator Arborist. Inspector **Urban Forester City/County** Environmental Geoenvironmental Naturalist Recycling Scientist: Scientist **Yee** Coordinator **Air Quality** Dace Cartographer **Atmospheric** Environmental Emergency **Soil Scientist** Scientist Engineer Responder **Biological Environmental Urban and** Chemical Game Warden, Science Scientist: **Regional Planner** Laboratory Wildlife Officer Technician Wetlands Technician

N 6 Environmental Environmental **Environmental** Recycling Conservationist Engineer Inspector Health and **Facility Manager Safety Manager** Ohio Native Prairie **Biological** Cartographer Game Warden, Laboratory Chemist Arborist. Wildlife Officer Technician **Urban Forester Civil Engineer** Marine **Communications** Wastewater **Soil Scientist Biologist Specialist** Treatment Dace **Biological** Environmental **Urban and** Science Hydrogeologist **Ecologist** Scientist: **Regional Planner** Technician Wetlands Environmental Fish and Soil **Civil Engineer** Wildlife Scientist: Storm Water Conservationist **Epidemiologist** Technician Management **Drinking Water**

B		N	G	0
Environmental Inspector	Chemist	Hydrologic Technician	Environmental Health and Safety Manager	Solar Energy Technician
City/County Recycling Coordinator	Geoenvironmental Scientist	Epidemiologist	Forester	Cartographer
Arborist, Urban Forester	Hydrogeologist	Free Space	Soil Scientist	Ecologist
Civil Engineer Solid Waste Management	Environmental Educator	Hydrologic Technician	Energy Consultant	Civil Engineer Wastewater Treatment
Soil Conservationist	Hazardous Material Removal Worker	Emergency Responder	Biologist	Wildlife Educator

Geographer	Emergency Responder	Cartographer	Arborist, Urban Forester	Civil Engineer Storm Water Management
Forester	Hydrologic Technician	<section-header></section-header>	Chemical Laboratory Technician	Hazardous Material Removal Worker
Certified Operator	Soil Scientist	Free Space	Sustainability Coordinator	Soil Conservationist
Hydrologist	Environmental Health and Safety Manager	Environmental Inspector	Civil Engineer Solid Waste Management	Game Warden, Wildlife Officer
City/County Recycling Coordinator	Energy Consultant	Wildlife Biologist	Solar Energy Technician	Wildlife Educator

Soil Conservationist	Civil Engineer Solid Waste Management	Forester	Naturalist	Recycling Facility Manager
Pollution Control Equipment Technician	Ecologist	Hydrogeologist	City/County Recycling Coordinator	Civil Engineer Storm Water Management
Environmental Scientist: Wetlands	Urban and Regional Planner	Free Space	Hydrologist	Environmental Health and Safety Manager
Ecologist	Biologist	Environmental Educator	Soil Conservationist	Soil Scientist
Risk Assessor	Solar Energy Technician	Fish and Wildlife Technician	Chemist	Atmospheric Scientist

B		N	G	0
Communications Specialist	Biologist	Chemical Laboratory Technician	Hydrogeologist	Geologist
Arborist, Urban Forester	Environmental Scientist: Air Quality	Wildlife Biologist	Wildlife Educator	Geographer
<section-header></section-header>	Biological Science Technician	Free Space	Naturalist	Hazardous Material Removal Worker
Civil Engineer Solid Waste Management	Environmental Inspector	Environmental Health and Safety Manager	Epidemiologist	Civil Engineer Storm Water Management
Urban and Regional Planner	Recycling Facility Manager	Environmental Inspector	Ecologist	Geoenvironmental Scientist

B		N	G	0
Geographer	<section-header></section-header>	Geoenvironmental Scientist	Environmental Scientist: Wetlands	Urban and Regional Planner
Environmental Educator	Forester	Marine Biologist	Soil Conservationist	Wildlife Educator
Environmental Engineer	Fish and Wildlife Technician	Free Space	Atmospheric Scientist	Biological Science Technician
Transportation Engineer	Certified Operator	Chemist	Civil Engineer Solid Waste Management	Geoenvironmental Scientist
Chemical Laboratory Technician	Biological Laboratory Technician	Hydrologic Technician	Game Warden, Wildlife Officer	Communications Specialist

B		N	G	0
Ecologist	Environmental Engineer	Risk Assessor	Chemist	Civil Engineer Solid Waste Management
Recycling Facility Manager	<section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	Forester	Wildlife Biologist	Transportation Engineer
City/County Recycling Coordinator	Wildlife Educator	Free Space	Game Warden, Wildlife Officer	Emergency Responder
Naturalist	Solar Energy Technician	Environmental Engineer	Atmospheric Scientist	Chemical Laboratory Technician
Cartographer	Hazardous Material Removal Worker	Pollution Control Equipment Technician	Sustainability Coordinator	Civil Engineer Storm Water Management

IN **Biologist Pollution Control** Urban and **Environmental** Equipment **Regional Planner** Engineer **Epidemiologist** Technician Geographer Wildlife Atmospheric **Microbiologist Soil Scientist Biologist Scientist Biological** Soil **Naturalist** Laboratory Conservationist Chemist **'ee** Technician pace Certified **Atmospheric** Hazardous **Risk Assessor Hydrologist** Operator Material **Scientist Removal Worker** Wildlife Environmental Chemical **Environmental Ecologist** Educator Laboratory Health and Scientist: Technician Air Quality **Safety Manager**

B		N	G	0
Soil Conservationist	Geographer	Urban and Regional Planner	Pollution Control Equipment Technician	Chemical Laboratory Technician
Marine Biologist	Soil Scientist	Civil Engineer Storm Water Management	Civil Engineer Solid Waste Management	Environmental Inspector
Emergency Responder	Hydrogeologist	Free Space	Sustainability Coordinator	Hydrologist
Ecologist	Fish and Wildlife Technician	Biological Laboratory Technician	Atmospheric Scientist	Environmental Scientist: Drinking Water
Certified Operator	Chemist	Biologist	Recycling Facility Manager	Naturalist

B		N	G	0
Urban and Regional Planner	Hydrogeologist	Game Warden, Wildlife Officer	Forester	Environmental Engineer
Arborist, Urban Forester	Marine Biologist	Environmental Scientist: Air Quality	Biological Laboratory Technician	Pollution Control Equipment Technician
Geographer	Chemical Laboratory Technician	Free Space	Environmental Scientist: Wetlands	Naturalist
Hazardous Material Removal Worker	Civil Engineer Wastewater Treatment	Risk Assessor	Hydrologic Technician	Recycling Facility Manager
Environmental Scientist: Air Quality	Civil Engineer Storm Water Management	Environmental Scientist: Drinking Water	Solar Energy Technician	Soil Conservationist

Hydrologist	Civil Engineer Storm Water Management	Urban and Regional Planner	Epidemiologist	Environmental Engineer
Soil Conservationist	Forester	Energy Consultant	Chemical Laboratory Technician	Certified Operator
Transportation Engineer	Risk Assessor	Free Space	Environmental Engineer	Hydrogeologist
Sustainability Coordinator	Recycling Facility Manager	<section-header></section-header>	Wildlife Biologist	Emergency Responder
Biologist	Wildlife Educator	Pollution Control Equipment Technician	Chemist	Soil Scientist

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Transportation Engineer	Environmental Scientist: Wetlands	Sustainability Coordinator	Environmental Scientist: Air Quality	Chemical Laboratory Technician
Pollution Control Equipment Technician	Biological Laboratory Technician	Hydrologic Technician	Environmental Engineer	Environmental Health and Safety Manager
Chemist	Biologist	Free Space	Soil Scientist	Fish and Wildlife Technician
Environmental Inspector	Hydrologist	Hydrogeologist	Environmental Scientist: Drinking Water	Arborist, Urban Forester
Forester	Recycling Facility Manager	Naturalist	Certified Operator	Geographer

B		N	G	0
Energy Consultant	Marine Biologist	Geoenvironmental Scientist	Soil Scientist	Recycling Facility Manager
Civil Engineer Wastewater Treatment	Environmental Scientist: Air Quality	Emergency Responder	Communications Specialist	Microbiologist
Naturalist	Geographer	Free Space	Certified Operator	<section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header>
Emergency Responder	Transportation Engineer	Ecologist	Solar Energy Technician	Biologist
Environmental Health and Safety Manager	Fish and Wildlife Technician	Biological Science Technician	Civil Engineer Storm Water Management	Biological Laboratory Technician

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Geographer	Microbiologist	Atmospheric Scientist	Wildlife Educator	Emergency Responder
Environmental Inspector	Marine Biologist	Fish and Wildlife Technician	Energy Consultant	Hazardous Material Removal Worker
Civil Engineer Wastewater Treatment	Hydrogeologist	Free Space	Environmental Health and Safety Manager	Chemical Laboratory Technician
Hydrologist	Transportation Engineer	Soil Conservationist	Chemist	Civil Engineer Storm Water Management
Certified Operator	Environmental Engineer	Soil Scientist	Environmental Scientist: Wetlands	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>

B ING Geologist Hazardous Civil Engineer Solid Waste Emergency Forester Material Responder Management **Removal Worker** Geographer Environmental Certified Recycling Ecologist Engineer Operator **Facility Manager** Geologist Soil Geoenvironmental Game Warden, Conservationist Scientist ree Wildlife Officer pace **Biological** Fish and Environmental Environmental Transportation Laboratory Wildlife Inspector **Educator** Engineer Technician Technician **Biologist** Wildlife **Risk Assessor Sustainability Biologist** Arborist, Coordinator **Urban Forester**

B		N	G	0
Geoenvironmental Scientist	Environmental Scientist: Wetlands	Civil Engineer Wastewater Treatment	Communications Specialist	Energy Consultant
Microbiologist	Arborist, Urban Forester	Naturalist	Epidemiologist	Environmental Scientist: Air Quality
Marine Biologist	Biological Science Technician	Free Space	Emergency Responder	Biologist
Hazardous Material Removal Worker	Soil Conservationist	Chemical Laboratory Technician	Solar Energy Technician	Hazardous Material Removal Worker
Civil Engineer Storm Water Management	Certified Operator	Hydrologist	Environmental Scientist: Air Quality	Urban and Regional Planner

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Civil Engineer Storm Water Management	Transportation Engineer	Atmospheric Scientist	Biologist	Microbiologist
Arborist, Urban Forester	Chemist	Soil Scientist	<section-header></section-header>	Energy Consultant
Recycling Facility Manager	Biological Science Technician	Free Space	Communications Specialist	Chemical Laboratory Technician
City/County Recycling Coordinator	Cartographer	Pollution Control Equipment Technician	Ecologist	Environmental Scientist: Air Quality
Soil Conservationist	Civil Engineer Wastewater Treatment	Emergency Responder	Geoenvironmental Scientist	Naturalist

N Fish and **Atmospheric Microbiologist Naturalist** Recycling Wildlife Scientist **Facility Manager** Technician **Civil Engineer** Wastewater **Ecologist** Hydrogeologist **Soil Scientist Epidemiologist** Treatment **City/County** Marine Recycling Environmental Game Warden, **Biologist** ree Coordinator Educator Wildlife Officer pace Geographer Environmental Urban and Soil **Civil Engineer** Scientist: Conservationist Solid Waste **Regional Planner** Management **Drinking Water** Cartographer **Fish and** Conservationist Wildlife Chemist Arborist, Technician **Urban Forester** Ohio Native Prairie

B		N	G	0
Geographer	Biological Science Technician	Microbiologist	Hydrologic Technician	Ecologist
Environmental Scientist: Air Quality	Biological Laboratory Technician	Transportation Engineer	Environmental Scientist: Wetlands	Recycling Facility Manager
Biologist	Hydrologist	Free Space	Certified Operator	Hydrogeologist
Risk Assessor	Fish and Wildlife Technician	Urban and Regional Planner	Environmental Educator	Communications Specialist
Marine Biologist	Energy Consultant	Forester	Geoenvironmental Scientist	Soil Scientist

N G Geologist **Environmental** Marine Scientist: Chemist Arborist, **Biologist Air Quality Urban Forester** Environmental **Environmental** Geoenvironmental Game Warden, **Microbiologist** Scientist: Scientist Engineer Wildlife Officer **Drinking Water Atmospheric** Environmental Certified Forester **Scientist** Operator Inspector ree pace Biological Hazardous **Urban and** Chemical Hydrologist Science **Material Regional Planner** Laboratory Technician **Removal Worker** Technician **Biologist Risk Assessor** Communications **Ecologist Soil Scientist Specialist**

B		N	G	0
Forester	Geoenvironmental Scientist	Chemical Laboratory Technician	Environmental Scientist: Wetlands	Environmental Health and Safety Manager
Recycling Facility Manager	Hydrogeologist	Pollution Control Equipment Technician	Soil Conservationist	Atmospheric Scientist
Hazardous Material Removal Worker	Hydrologic Technician	Free Space	Hydrologist	Environmental Engineer
Emergency Responder	Chemist	Transportation Engineer	Geographer	Certified Operator
Civil Engineer Solid Waste Management	Civil Engineer Wastewater Treatment	Environmental Scientist: Air Quality	Solar Energy Technician	Epidemiologist

B		N	G	0
Risk Assessor	Urban and Regional Planner	Energy Consultant	Atmospheric Scientist	<section-header></section-header>
Transportation Engineer	Certified Operator	Recycling Facility Manager	Fish and Wildlife Technician	Ecologist
Chemist	Naturalist	Free Space	Civil Engineer Storm Water Management	Arborist, Urban Forester
Wildlife Biologist	Geographer	Environmental Health and Safety Manager	Ecologist	Geoenvironmental Scientist
Cartographer	Marine Biologist	Hydrologic Technician	Solar Energy Technician	Pollution Control Equipment Technician

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Soil Scientist	Civil Engineer Wastewater Treatment	Emergency Responder	Solar Energy Technician	Environmental Educator
Civil Engineer Solid Waste Management	Forester	Geologist	Biological Laboratory Technician	Geographer
Wildlife Educator	Hydrogeologist	Free Space	Biologist	Environmental Scientist: Drinking Water
Hazardous Material Removal Worker	Biological Science Technician	Chemical Laboratory Technician	Environmental Engineer	Soil Conservationist
Sustainability Coordinator	Environmental Scientist: Wetlands	Environmental Scientist: Air Quality	Fish and Wildlife Technician	Microbiologist

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Hydrologist	Geologist	Civil Engineer Storm Water Management	Wildlife Educator	Chemical Laboratory Technician
Soil Conservationist	Geoenvironmental Scientist	Biologist	Environmental Educator	Forester
Biological Laboratory Technician	Transportation Engineer	Free Space	Environmental Scientist: Wetlands	Hazardous Material Removal Worker
Environmental Health and Safety Manager	Energy Consultant	Pollution Control Equipment Technician	Game Warden, Wildlife Officer	Cartographer
Ecologist	Naturalist	Recycling Facility Manager	Fish and Wildlife Technician	Epidemiologist

ING Civil Engineer Solid Waste Environmental Hydrologist Conservationist Soil Scientist Inspector Management **Ohio Native Prairie Environmental** Solar Energy Game Warden. Hydrogeologist Scientist: Chemist Technician Wildlife Officer Air Quality **City/County Civil Engineer** Recycling **Microbiologist** Emergency Wastewater Coordinator (2)Treatment Responder pace **Biological** Certified Atmospheric **Communications Risk Assessor** Science Operator **Scientist** Specialist Technician Hydrologic Urban and Geographer Environmental Arborist, Technician **Regional Planner** Engineer **Urban Forester**

B		N	G	0
Environmental Scientist: Drinking Water	Naturalist	Fish and Wildlife Technician	Environmental Engineer	Environmental Health and Safety Manager
Environmental Educator	Transportation Engineer	Biologist	Hazardous Material Removal Worker	Civil Engineer Solid Waste Management
Civil Engineer Wastewater Treatment	City/County Recycling Coordinator	Free Space	Ecologist	Hydrologic Technician
Epidemiologist	Geoenvironmental Scientist	Wildlife Biologist	Civil Engineer Storm Water Management	<section-header><section-header> Oconservationist Obio Natice Practice Obio Natice Practice</section-header></section-header>
Arborist, Urban Forester	Urban and Regional Planner	Environmental Scientist: Air Quality	Biological Science Technician	Biological Laboratory Technician

B		N	G	0
Biological Laboratory Technician	Emergency Responder	Atmospheric Scientist	Fish and Wildlife Technician	Chemical Laboratory Technician
Geologist	Hazardous Material Removal Worker	Environmental Health and Safety Manager	Hydrologic Technician	City/County Recycling Coordinator
Transportation Engineer	Energy Consultant	Free Space	Game Warden, Wildlife Officer	Environmental Inspector
Soil Scientist	Naturalist	Soil Conservationist	Environmental Educator	Forester
Microbiologist	Epidemiologist	Wildlife Educator	Risk Assessor	Urban and Regional Planner

B		N	G	0
Environmental Scientist: Drinking Water	Pollution Control Equipment Technician	Geoenvironmental Scientist	Hydrologist	Recycling Facility Manager
Cartographer	Ecologist	Environmental Engineer	Environmental Scientist: Wetlands	Marine Biologist
Biological Science Technician	Hydrogeologist	Free Space	Sustainability Coordinator	Environmental Scientist: Air Quality
Chemist	Civil Engineer Solid Waste Management	Communications Specialist	Arborist, Urban Forester	Biologist
Wildlife Biologist	Civil Engineer Storm Water Management	Solar Energy Technician	<section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header>	Civil Engineer Wastewater Treatment

B		N	G	0
Epidemiologist	Marine Biologist	Environmental Scientist: Wetlands	Environmental Inspector	Civil Engineer Storm Water Management
Civil Engineer Wastewater Treatment	Solar Energy Technician	Recycling Facility Manager	Microbiologist	Hydrologist
Forester	Urban and Regional Planner	Free Space	Geographer	Cartographer
Environmental Scientist: Air Quality	Soil Scientist	Microbiologist	Geologist	Risk Assessor
Environmental Engineer	Environmental Educator	Geoenvironmental Scientist	Civil Engineer Wastewater Treatment	Atmospheric Scientist

B		N	G	0
Chemical Laboratory Technician	Biologist	Emergency Responder	Environmental Scientist: Drinking Water	Hydrologic Technician
Game Warden, Wildlife Officer	Environmental Health and Safety Manager	Civil Engineer Solid Waste Management	Hydrogeologist	Communications Specialist
Environmental Inspector	Hazardous Material Removal Worker	Free Space	City/County Recycling Coordinator	Ecologist
Certified Operator	Naturalist	Pollution Control Equipment Technician	Biological Laboratory Technician	Risk Assessor
Environmental Engineer	Environmental Educator	Geoenvironmental Scientist	Chemical Laboratory Technician	Atmospheric Scientist

Cartographer	Recycling Facility Manager	Chemist	Epidemiologist	City/County Recycling Coordinator
Naturalist	Biologist	Environmental Scientist: Wetlands	Transportation Engineer	Forester
Soil Conservationist	Biological Science Technician	Free Space	Biological Laboratory Technician	Environmental Scientist: Air Quality
Ecologist	Solar Energy Technician	Civil Engineer Wastewater Treatment	Game Warden, Wildlife Officer	Environmental Engineer
Wildlife Educator	Urban and Regional Planner	Geographer	Civil Engineer Wastewater Treatment	Marine Biologist

B		N	G	0
Environmental Health and Safety Manager	Hydrogeologist	<section-header></section-header>	Pollution Control Equipment Technician	Hydrologic Technician
Geologist	Hydrologist	Geoenvironmental Scientist	Fish and Wildlife Technician	Wildlife Biologist
Certified Operator	Communications Specialist	Free Space	Recycling Facility Manager	Civil Engineer Storm Water Management
Chemist	Arborist, Urban Forester	Soil Conservationist	Risk Assessor	Emergency Responder
Atmospheric Scientist	Chemical Laboratory Technician	Environmental Scientist: Drinking Water	Hazardous Material Removal Worker	Civil Engineer Storm Water Management

B		N	G	0
Biologist	Sustainability Coordinator	Certified Operator	Chemist	Wildlife Biologist
Hydrologist	Energy Consultant	Civil Engineer Solid Waste Management	Urban and Regional Planner	Pollution Control Equipment Technician
Hazardous Material Removal Worker	Cartographer	Free Space	Geoenvironmental Scientist	Chemical Laboratory Technician
Marine Biologist	Environmental Educator	Ecologist	Epidemiologist	Atmospheric Scientist
Emergency Responder	Geographer	Geologist	Environmental Scientist: Drinking Water	Environmental Scientist: Air Quality

R N Wildlife Environmental Soil **Risk Assessor** Game Warden, Educator Conservationist Engineer Wildlife Officer Environmental Communications Solar Energy Recycling Forester Scientist: Specialist Technician **Facility Manager** Wetlands Hydrologic **Biological Civil Engineer** Environmental Technician Storm Water Science Inspector Management Technician pace all a second **Biological Fish and Microbiologist** Laboratory Conservationist Wildlife Arborist, Technician Technician **Urban Forester Ohio Native Prairie City/County Biological** Chemical Transportation Science Recycling **Ecologist** Laboratory Engineer Coordinator Technician Technician

B		N	G	0
Wildlife Biologist	Hazardous Material Removal Worker	Civil Engineer Wastewater Treatment	Recycling Facility Manager	Environmental Scientist: Air Quality
Biological Science Technician	Biological Laboratory Technician	Atmospheric Scientist	Solar Energy Technician	Soil Conservationist
Hydrogeologist	Soil Scientist	Free Space	Microbiologist	Environmental Inspector
Chemical Laboratory Technician	Hydrologic Technician	Civil Engineer Solid Waste Management	Arborist, Urban Forester	Geographer
Communications Specialist	Marine Biologist	Chemist	Cartographer	Emergency Responder

B		N	G	0
Geoenvironmental Scientist	Game Warden, Wildlife Officer	Soil Scientist	Civil Engineer Wastewater Treatment	Hydrologist
Forester	Environmental Scientist: Wetlands	Epidemiologist	<section-header></section-header>	Environmental Engineer
City/County Recycling Coordinator	Wildlife Educator	Free Space	Certified Operator	Marine Biologist
Pollution Control Equipment Technician	Biologist	Ecologist	Geologist	Sustainability Coordinator
Environmental Educator	Civil Engineer Storm Water Management	Environmental Scientist: Drinking Water	Fish and Wildlife Technician	Transportation Engineer

B		N	G	0
Geologist	Wildlife Educator	Biological Laboratory Technician	Hazardous Material Removal Worker	Game Warden, Wildlife Officer
Environmental Scientist: Wetlands	Transportation Engineer	Sustainability Coordinator	Civil Engineer Storm Water Management	Geoenvironmental Scientist
Ecologist	Arborist, Urban Forester	Free Space	Energy Consultant	Forester
Hydrologic Technician	Microbiologist	Biologist	Naturalist	Solar Energy Technician
Epidemiologist	Environmental Educator	Civil Engineer Solid Waste Management	Environmental Health and Safety Manager	Chemist

B		N	G	0
Soil Conservationist	Atmospheric Scientist	Communications Specialist	Fish and Wildlife Technician	Soil Scientist
<section-header></section-header>	Environmental Inspector	Emergency Responder	Marine Biologist	Pollution Control Equipment Technician
Hydrogeologist	Biological Science Technician	Free Space	Certified Operator	Urban and Regional Planner
Chemical Laboratory Technician	Environmental Scientist: Air Quality	Hydrologist	Wildlife Biologist	Environmental Scientist: Drinking Water
Civil Engineer Wastewater Treatment	Environmental Engineer	Risk Assessor	Geographer	Cartographer

Environmental Careers Classroom Activity

- This activity can be done as a bingo game or interactive "What's My Career?" mixer.
- Download slides, cards and instructions at <u>http://epa.ohio.gov/oee</u> under the environmental education tab, "environmental education resources" link





New England Water Works Association Youth Education Committee Classroom Module

Career Education

Environmental Career Resources

Animal Care and Science videos from Kids.gov, including animal keeper, marine biologist, veterinarian, wildlife biologist, and zoo keeper <u>https://www.usa.gov/animal-science-careers</u>

Arboriculture Career Paths from the International Society of Arboriculture <u>http://www.isa-arbor.com/students/careersInArboriculture/commonCareerPaths.aspx</u>, with job descriptions for <u>Municipal Arborist/Forester</u>, <u>Utility Arborist/Forester</u>, and <u>Urban Forester/Government</u> and a Careers in Arboriculture video <u>https://youtu.be/u8Qn1iAMISI</u>

Conservation Connect outdoor career videos from US Fish and Wildlife Service http://nctc.fws.gov/conservationconnect/

Farming, Fishing and Forestry videos from Kids.gov, including federal wildlife officer and wildlife biologist https://www.usa.gov/farming-fishing-forestry-careers

River Careers profiles from RiverWorks Discovery http://www.riverworksdiscovery.org/river-careers/

Scientists at the Smithsonian, includes Amphibian Ace, Bat Listener, Bee Tracker, Bird Strike Sleuth, Dinosaur Hunter, Frog Follower, Reef Whisperer, Seed Reader and many more http://www.smithsonianeducation.org/scientist/index.html

Scientists Card series from Natural Inquirer middle school science education <u>http://www.naturalinquirer.org/scientists-v-92.html</u>

US Environmental Protection Agency "Faces of the EPA" video interviews https://www.youtube.com/playlist?list=PLBhfkkujnoRD-7H1lYa5FQ10AFqsjbnlh

US Geological Survey Career Cards for ten different science careers including biological science technician, biologist, cartographer, chemist, ecologist, geologist, geographer, hydrologic technician, hydrologist, physical scientist, <u>http://education.usgs.gov/careercards.html</u>

Wildlife Biologist Career Spotlight video from US Fish and Wildlife Service & Kids.gov http://kids.usa.gov/watch-videos/jobs/wildlife-biologist/index.shtml

Wildlife Officer Career Spotlight video from US Fish and Wildlife Service & Kids.gov http://kids.usa.gov/watch-videos/jobs/federal-wildlife-officer/index.shtml

Zoo Keepers from the National Zoo and Kids.gov http://kids.usa.gov/watch-videos/jobs/zoo-keepers/index.shtml

"My Future Life" videos, <u>http://www.youtube.com/user/SEOCEMS</u> with career interviews such as Aquatic Biologist, Hydrogeologist, Environmental Projects Manager, Plant Pathologist, Wind Energy Assessment, and Waste Management

Classroom Activities on Environmental Careers

Environmental Careers Icebreaker Classroom Activity created by Ohio EPA Office of Environmental Education to showcase 52 different public sector and private sector careers http://epa.ohio.gov/oee/EnvironmentalEducation.aspx#135377996-environmental-education-resources

"Urban Waters" activity in the *Project WET Curriculum and Activity Guide 2.0* includes water career cards for 19 careers related to providing and treating drinking water, and treating waste water.

"Who Works in This Forest?" activity in *Project Learning Tree Pre K-8 Environmental Education Activity Guide*

"Working for Wildlife" activity in newest *Project Wild Aquatic Guide*, and accompanying online Project WILD: Wild Work Resources, <u>http://www.projectwild.org/projectwildwebsite/resources/occupations.htm</u>

Environmental Career Resources Available for Purchase

Environmental Related Occupations two- volume Career Pathway DVD available from <u>www.careerpathwaysonline.com</u> includes video interviews of Ohio and West Virginia environmental professionals about their careers, education and salary in the following fields:

Air Quality Manager Solid Waste Manager Hazardous Waste Manager Urban and Regional Planner Forest and Conservation Scientist Water and Wastewater Treatment Plant Operator Geologist Meteorologist Park Ranger Biological Scientist Environmental Inspector Recycling Plant Manager

Scientists in the Field series of books from Houghton Mifflin Harcourt: The Bat Scientists by Mary Cay Carson, c. 2010

Emi and the Rhino Scientist by Mary Kay Carson, c. 2010

Extreme Scientists: Exploring Nature's Mysteries from Perilous Places by Donna M. Jackson, c. 2009 **The Frog Scientist** by Pamela S. Turner, c. 2009

Gorilla Doctors: Saving Endangered Great Apes by Pamela S. Turner, c 2005 Hidden Worlds: Looking Through a Scientist's Microscope by Stephen Kramer, c. 2001

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Once a Wolf: How Wildlife Biologists Fought to Bring Back the Gray Wolf by Stephen R. Swinburne, c. 1999

Park Scientists: Gila Monsters, Geysers and Grizzly Bears in America's Own Backyard by Tom Uhlman and Mary Kay Carson, c. 2014

The Polar Bear Scientists by Peter Lourie, c. 2012

The Prairie Builders: Reconstructing America's Lost Grasslands by Sneed Collard III, c. 2008 **Project UltraSwan** by Elinor Osborn, c. 2002

Quest for the Tree Kangaroo: An Expedition to the Cloud Forest of New Guinea, by Sy Montgomery, c. 2006

Saving the Ghost of the Mountain: An Expedition Among Snow Leopards in Mongolia by Sy Montgomery, c. 2009

Science Warriors: The Battle Against Invasive Species by Sneed B. Collard III, c. 2008 Secrets of Sound: Studying the Calls and Songs of Whales, Elephants and Birds by April Pulley Sayre, c. 2002

The Snake Scientist by Sy Montgomery, C. 1999

Stronger than Steel: Spider Silk DNA and the Quest for Better Bulletproof Vests, Sutures, and

Parachute Rope by Bridget Heos, c. 2013

The Tarantula Scientist by Sy Montgomery, c. 2007

Tracking Trash: Flotsam, Jetsam and the Science of Ocean Motion by Loree Griffin Burns, c. 2007 **The Whale Scientists: Solving the Mystery of Whale Strandings**, by Fran Hodgkins, c. 2007 **The Wildlife Detectives: How Forensic Scientists Fight Crimes Against Nature**, by Donna M. Jackson, c. 2000

The Woods Scientist by Stephen R. Swinburne, c. 2002

General Career Resources

Occupational Outlook Handbook from the US Bureau of Labor Statistics http://www.bls.gov/ooh/home.htm includes in-depth job descriptions, degree requirements, pay and job outlook for a number of environmental careers, including:

Atmospheric Scientists Biological Technicians Civil Engineers Conservation Scientists and Foresters Environmental Engineering Technicians Environmental Engineers Environmental Science Technicians Environmental Scientists and Specialists

Epidemiologists Geoscientists Hazmat Removal Workers Hydrologists Microbiologists Occupational Health & Safety Specialists Wildlife Biologists Zoologists

See also the Bureau of Labor Statistics K-12 website, http://www.bls.gov/k12/