Careers in Environmental Health – Teacher Guide

Description
The video "Careers in Environmental Health" was created to introduce students to various careers in science. Environmental Health includes chemists, biologists, toxicologists, epidemiologists, and many more careers. Scientists from Oregon State University (OSU) and the Environmental Protection Agency (EPA) were interviewed about their job, as well as how they ended up becoming a scientist. The video is 13 minutes long.

Student Outcomes
After watching the video and completing the worksheet, students will be able to:
- Identify up to three different careers related to environmental health
- List the types of classes needed to become a scientist
- Share about the diversity of people who become scientists
- Describe some ways that environmental health scientists make a difference
- Describe why scientists enjoy their jobs

Student Products
- **Careers in Environmental Heath Worksheet**

Suggested Lesson Plan

Before watching the video
Some of the vocabulary used in this video may not be familiar to the students. The vocabulary list has many of the terms that are used in the video. It may be helpful to go over these terms with the students before watching the video.

To help the students begin thinking about careers in science, ask the students to describe what they think a scientist does.

During the video
A short worksheet has been developed for students to fill out as they watch the video.

After watching the video
Student can break up into pairs or small groups and compare their answers on the worksheets.
As a class, students can take turns sharing the answers on the worksheet.

Lead a discussion
> *Guiding questions*:
> - What was the most surprising thing you learned about being a scientist? Why?
> - Did you think these careers fit in the field of environmental health? If not, why?
> - What was the most interesting career you learned about?
> - How did this video change the way you feel about science and scientists?

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Careers in Environmental Health: Terminology

Agronomy – the science of soil management and crop production.

Analyze - examine methodically and in detail the constitution or structure of (something, especially information), typically for purposes of explanation and interpretation.

Biology – the study of living organisms, divided into many specialized fields that cover their morphology, physiology, anatomy, behavior, origin, and distribution.

Chemistry – the branch of science that deals with the identification of the substances of which matter is composed; the investigation of their properties and the ways in which they interact, combine, and change; and the use of these processes to form new substances.

Coastal Zone – A coastline or seashore is the area where land meets the sea or ocean. A precise line that can be called a coastline cannot be determined due to the dynamic nature of tides.

Data – facts and statistics collected together for reference or analysis.

Ecology – the branch of biology that deals with the relations of organisms to one another and to their physical surroundings.

Epidemiology – the branch of public health that deals with the incidence, distribution, and possible control of diseases and other factors relating to health.

Exposure – the state of being exposed to contact with something.

Interventions –action taken to improve a situation

Legislation – laws, considered collectively.

Marine – of, found in, or produced by the sea.

PhD – Doctor of Philosophy: a doctorate in any discipline except medicine, or sometimes theology.

Physiologist – a biologist specializing in physiology

Regulate –control or supervise (something, especially a company or business activity) by means of rules and regulations.

Scholar – a specialist in a particular branch of study, especially the humanities; a distinguished academic.

Superfund – a US federal government program designed to fund the cleanup of toxic wastes.

Toxicology –the branch of science concerned with the nature, effects, and detection of poisons.