

Dream Jobs: Environmental engineer

By Environmental Protection Agency, adapted by Newsela staff on 03.09.17

Word Count **517**

Level **580L**



TOP: Nicole Walsh (right), a civil engineer with the U.S. Army Corps of Engineers Baltimore District, and Dave Harmon, an environmental engineer with the New York State Department of Environmental Conservation, inspect a non-federal dam in Dutchess County in New York, September 2, 2011. Photo from public domain. BOTTOM: Valarie Zartarian, EPA research environmental engineer, who was interviewed for this article. Photo: EPA.gov

Valerie Zartarian is a scientist and engineer. She works for the Environmental Protection Agency (EPA). The EPA is a government group. It is in charge of protecting the environment.

Zartarian's job is to study how people come into contact with dangerous materials. These include chemicals and other substances that harm the environment. These substances can make people sick.

Zartarian's work gives the government important information. It helps leaders make decisions that will protect human health.

Why is your work important?

My work provides the EPA with the information they need to protect public health.

My team created a computer tool. It shows how people come into contact with dangerous materials. This happens when there are chemicals in the water, ground or air. Then people might come into contact with these substances in their everyday activities. Breathing, eating and touching things are examples.

The computer tool helps the EPA find out where people are at risk. It helps them decide to set rules against certain chemicals. These rules help keep people safe.



If you could have dinner with any scientist, who would it be and what would you like to ask them about?

There are so many to choose from! I will go with Maria Mitchell. She was a true pioneer. She was the first female astronomer in the U.S. Astronomers study stars and space. Mitchell was also the first female scientist known around the world.

What do you like most about your research?

I really like making tools that help keep people safe and healthy. I like that the work I do is creative, but it also helps people.

Tell us about your science and educational background.

I went to a high school with a great math and science program. I led the school's math team there. That experience had a big impact on me.

After high school, I went to Princeton University. I studied to be an engineer. An engineer is someone who designs and builds things.

Later, I worked in the field of water resources and protection. In this role, I studied pollution in groundwater. I figured out ways to keep the water supply clean. I really enjoyed this work, so I went back to school to study more. I went to Stanford University to study environmental engineering.

I joined EPA in 1998. Since then, my work has changed in ways I could not have imagined. I am excited now to help lead part of an EPA program. We use research and computers to help keep communities healthy.

If you were not a scientist, what would you like to be?

That is a hard question for me. I have many interests in the arts and sciences. I enjoy writing, so I might try that as a job.

Do you have advice for students considering a career in science?

Take many different science courses. That's the best way to figure out what you like the most. Doing internships is also a good idea. These are unpaid positions to gain experience. Through internships, you can try many different fields. This will help you focus your interests.