

swe **NEXT**



In this issue:

- Discover more about **Environmental Engineers**
- Meet an actual **Environmental Engineer**
- Register for **Invent it. Build it.**
- Be a part of the **SWENext Club Challenge**
- Pose a question to an engineer
- Get creative with our latest engineering challenge

Get social with SWENext

Have you heard the news? SWENext just launched a new fan page on Facebook!

[Like the new SWENext fan page today >>](#)

Ask an engineer a question and be part of our Day in the Life video series

SWE is partnering with [Terracon](#) to create a video series about a day in the life of [environmental](#), [geotechnical](#), and [materials](#) engineers. We'll find out what they do at work, how they got there, and other fun facts. SWENexters have an exclusive opportunity to get involved in our video series and ask an engineer a question.

Have you ever wondered why someone would choose to become an environmental engineer? Or maybe you're curious about how engineers make the world a better place? Here's your chance to get your questions answered!

All you have to do is record a video of yourself asking a question you'd like to have answered by an engineer. Upload your video to YouTube and email us the link at swenext@swe.org before **May 1**. We'll pick a few SWENexters and include their questions in our Day in the Life video series.

All SWENexters who send us a video with their question by May 1 will be entered into a raffle for a bunch of goodies from SWE and Terracon.

Environmental Engineering

We like to say that engineers are changing the world all the time. That is definitely true for Environmental Engineers!

Environmental Engineers work with cleaning up contamination or preventing contamination of the air, soil, and water. They study where there could be an impact on the environment or people's health, and then they create solutions that lessen that impact. They work all over the world.



An Environmental Engineer may work on cleaning up a contaminated waste site, improving a recycling process, monitoring levels of air pollution, or cleaning drinking water. If you like to spend a lot of time outdoors, this career may be for you!

[Watch this video](#) to learn more about what Environmental Engineers.

Meet Dania Zinner, Environmental Engineer



Dania works for the Environmental Protection Agency (EPA) in Denver, Colorado. She has a degree in Environmental Engineering from the University of Colorado.

Her main job as a project manager is to clean up places that are contaminated by hazardous waste. Currently, she works on cleaning up mine sites in Montana and Colorado. These abandoned mines release acid mine drainage and/or have toxic waste rock that needs to be cleaned up or covered with clean soil and natural plant life.

Dania became an Environmental Engineer to help people, animals, and the planet. Her advice for those who want to become an Environmental Engineer is to take math and

advice for those who want to become an Environmental Engineer is to take math and science classes and definitely sign up for the science fair.

For science fair project ideas, [check out the EPA website.](#)

Register for Invent it. Build it.

Middle school SWENexters: now's the time to [register for Invent it. Build it.](#), our largest hands-on engineering event.

Don't forget to enter the early bird code "BETHATENGINEER" to be entered into a special raffle at the event! The deadline to use the code is **May 31.**



Take on the SWENext Club Challenge

SWE is challenging the next generation to create an exciting engineering demo and to celebrate women engineers who are breaking boundaries in their field. The winning club will come to the SWE annual conference, WE18, in Minneapolis, MN, this October and show their demo to women engineers.

Find out more about how to [start a SWENext Club](#) and take on the [SWENext Club Challenge.](#)

SWENext Engineering Challenge with a chance to win a cool giveaway

Environmental Engineers apply science and engineering principles to protect people and nature from bad effects. Their work can improve recycling, waste disposal, public health, and water and air pollution control.

This month, we're challenging you to purify a contaminated water source. The water that comes out of our faucets goes through a water treatment plant designed by engineers, so we're challenging you to do this on a small scale by making at least two filters to see which one works best.

You can use some of these materials for your filter(s), or anything else you can think of.

- Tissue
- Paper towel
- Coffee filters

- Gravel
- Cotton balls
- Gauze squares
- Funnel
- Plastic cup with holes on the bottom

Feel free to **plan your experimentation with this worksheet**, and you can even make some sketches of potential designs on the back.

To prepare the water and filters, **follow this procedure**:

1. Prepare a liter of contaminated water using dirt or sand until it is opaque.
2. Gather the materials you need to make your two filters.
3. Using your materials, build two different filter setups over a clear bowl, jar or plastic container.
4. Send ~1 cup of water through each of your filters. Compare the clarity of the water after filtering to determine which filter was most effective.

If you're feeling extra innovative, feel free to make more filters or try to contaminate your water with another pollutant and try to filter it out.



Be proud of your new creation and share it with SWENext! Each month, a lucky winner will be selected from the submissions to win a SWENext freebie. Don't miss the chance! All it takes is a few minutes and a great picture. **Please email your entry to swenext@swe.org by April 27.**

Shout Out to last month's SWENext Engineering Challenge winner

The lucky winner for March's Chemical Engineering challenge is Hailey, age 11, from Viera, Florida. Hailey made a spinning top from her milk and vinegar "plastic". She stuck a toothpick through it before it was completely dry. Hailey reports that it spins really well! Congratulations! Your awesome freebie is on its way.





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