

Hi, I'm Miranda Mackrell, a student at Mid Valley and a Youth Ambassador for Remake Learning Days 2025. As part of this year's events, I had the amazing opportunity to attend an event called Spotlight on 3D Printing, which took place at the Nurture Nature Center in Easton, Pennsylvania. The event was held on May 17th from 1:00 to 2:00 p.m., and honestly, it ended up being one of the most interesting and eye-opening learning experiences I've had so far.

Spotlight on 3D Printing was specifically designed for students and young people who are curious about technology, innovation, creativity, and how all of those things connect to the environment. It wasn't just a science demo—it was a thoughtful and interactive session that helped us understand how 3D printing works and what kind of impact it can have on the world, both positive and negative. I went in excited to learn about how 3D printers can turn ideas into real objects, but I walked away thinking about much more than just the tech.

One of the most important takeaways from the event was how 3D printing relates to environmental issues. During the session, we learned about the kinds of plastics used in 3D printing and the problems they can create if they aren't handled properly. Before this event, I hadn't really thought much about the downside of 3D printing. It always seemed like a cool, cutting-edge technology, but hearing about the environmental effects—like how long plastics can stick around in landfills or oceans—really made me reconsider. It reminded me that every new technology has two sides: what it can do, and what it might unintentionally cause if we're not careful.

A major highlight for me was when the presenter used the Center's digital interactive globe, called the Sphere spotlight. This globe allowed us to see environmental issues play out on a global scale in real time. The presenter used it to show how pollution, especially plastic pollution, spreads across the world. We saw areas where ocean currents trap plastic waste and how industrial regions affect air quality. It wasn't just a PowerPoint presentation—it was visual, dynamic, and incredibly impactful. The Sphere made global issues feel personal and immediate. It helped me truly understand that pollution isn't a distant problem—it's happening everywhere, and we all play a part in it.

Another thing I appreciated about the session was how the presenter combined science and history. We didn't just talk about molecules or machines—we learned how synthetic materials like plastics were invented, how they changed the way we live, and how that progress brought both benefits and challenges. I liked that we were encouraged to connect the dots between innovation and responsibility. Technology doesn't exist in a vacuum. It always has ripple effects on people, industries, and the planet.

But, the event wasn't all about the negatives. We also explored the many exciting and positive ways 3D printing is being used today. For example, we talked about how it can reduce waste by creating only what is needed, rather than mass-producing things that may go unused. In medicine, 3D printing is being used to make custom prosthetics, dental implants, and other tools that can be adapted to individual patients. And perhaps most exciting, some companies are experimenting with biodegradable or recycled materials to make 3D printing more sustainable. All of that gave me hope that this technology, if used responsibly, could do a lot of good.

Still, the session didn't shy away from the harder questions. What happens when 3D printing becomes so common that people start printing more plastic than ever? Are we prepared to deal with the waste? Will access to this technology be equal, or will it mostly benefit those

who already have resources? These are tough questions, but I'm glad we were encouraged to think about them. The point wasn't to scare us, but to get us thinking critically and creatively about the future.

In the end, Spotlight on 3D Printing was so much more than a tech demo. It was a powerful example of how science and environmental education can come together to challenge and inspire young minds. As a Youth Ambassador for Remake Learning Days, I felt proud to take part in something that goes beyond just learning facts. It made me reflect on how I can use my own interests in design and the environment to help solve problems rather than create them.

I'm really thankful I got to attend. It reminded me that learning isn't just about absorbing information—it's about asking better questions, staying curious, and thinking about how we can use what we learn to make a real difference. To learn more about the Nurture Nature Center, visit <https://nurturenaturecenter.org>.

Learn more at remakelearningdays.org. For Remake Learning Days, this is Youth Ambassador Miranda Mackrell.