

accessible video transcript

3D printing & Tinkercad

Subin: So these are our 3-D printing session. Left side is the before slide, the object. [unclear] Okay. I printed out the way they designed. Came out like this and I showed the kid. "This is your design. Did you design like this? This is your creation." And she said, "No." "Okay, let's see why it came out like this."

So she figured out that, "Oh, I didn't design on the work plane." It was actually in the space, in the air. So when 3D printer printed out, it's all printing melting those plastic filaments in the air came out like this. Well we kept it because that's a great example before, the mistake. So that's a mistake part we learn from mistakes. After part is what really actually that was. So she made sure that the design is on the work plane then it nicely came out all layered correctly.

Maggie: So we do spend a lot of time like teaching, not a lot but a good 5 to 10 minutes, making sure that students understand what an overhang is and how we can create a strong base for printing 3D objects.

So keeping these mistakes is a great, is a great example to just show them what could happen. So sort of like trial and error with these students. And we don't want to tell them what to do, but we want them to also like see how they're designing and how it could come out.

Subin: So it's a great experience.

Maggie: Yeah. And so, yeah, we we continue to encourage students to always make mistakes because it teaches them to like problem-solve and just "What can you do?" "What can you problem-solve when you do make this mistake?" "Is just the end of the world or is this a level five or is this just a level one, and then you can rethink, right?"