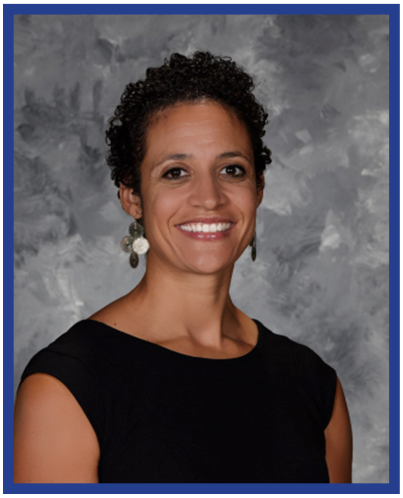

the CASE

How do we prepare children for a future that does not yet exist? How can we prepare our students for the challenges of a rapidly changing world? These are the questions and challenges of any school, but especially that of an elementary school. The kindergarten students that enter our doors next year will be the class of 2030; my son will be among this distinguished group of little scholars with bright eyes and the future ahead of them. With the far-off reality of the year 2030 seeming distant and hard to predict, what is the role of our elementary schools in this challenge?

According to the World Economic Forum's Job Report, we are on the verge of what is being called the Fourth Industrial Revolution, and by 2020, the top three job skills needed will be complex problem-solving, critical thinking, and creativity. The fact is that our traditional public school structure was mainly established during the first industrial revolution, where conformity, assimilation, ability to follow directions, and standardization were highly valued in order to prepare a workforce. The truth is, not much has changed in our education system since then. We have a standardized set of curricular outcomes, standardized educational resources, common assessments, and standardized district and state testing. We have distinct subjects, which are taught in silos, with very little overlap between them. However, we are beginning to see changes—pockets of innovation are occurring in schools across America. So what does all this mean? It means that it is time to innovate, time to try new things, and time to expose our children at young ages to new tools, ideas, and concepts.

One step we are taking toward this at Lander Elementary is the creation of our school Makerspace. A makerspace is a space where ideas materialize—a space where creativity abounds, inspiration flourishes, experience transfers and the future is created right before our eyes. We took a classroom, equipped it with a wide variety of old-school and high-tech tools and supplies, and are ready to watch our students' creative energies soar. This began as a volunteer committee of teachers with a vision for creating a space in our school that could bring together all of the STEAM concepts into one place. Some of our teachers even interviewed students to see what types of tools they wanted in our Makerspace. Next, we commissioned a team of high school CADD students from our Career and Technical program who took measurements, helped us come up with a design vision for the room, and created our blueprints. Then, to secure the financial resources needed, we partnered with our Parent Teacher Group, and held a read-a-thon. Finally, additional donations were also secured from businesses in our community, including Target, Walmart, and Big Lots.

Our Makerspace is organized into four different areas: art and design, industry, technology, and engineering and architecture. Our art-and-design section includes sewing, sculpting, different textiles, and publishing. The industry section includes woodworking, fabricating, and building. Our technology section offers students the ability to explore with Makey-Makey's, computer coding, and Little Bits. The engineering section, which seems to be the most popular, includes a Lego wall and robotics. Since our grand opening of our Makerspace in October, the teachers have been work-

art & design

industry

for MAKERSPACE

by Felecia Evans

ing on taking the students into the Makerspace, and through a process of trial and error, they are learning how the different tools work and then allowing the children to explore their passions.

Next year, our Makerspace will be an extension of our "specials" schedule. Students will have the chance to visit the Makerspace at least once a week to further sharpen their critical-thinking and creative skills. We have intentionally designed this space to lack the traditional prescribed path that students are so accustomed to getting and we are trained to give. We want them to explore, design, build, and create things that we, as adults, would never think possible.

Let's talk a little bit about the why. In this day and age of accountability, standards, and testing, why would we focus our time, efforts, and resources on creating a Makerspace? Remember what I said earlier about the future skills needed to succeed? Those skills are complex problem-solving, critical thinking, and creativity. While our accountability system has not caught up with ways to teach these skills, our society and job markets are demanding it. How do you encourage and hone these skills? Allow students the opportunity to create and make, give them tools to problem solve and explore, get out of their way, and watch them bloom.

Ultimately our goal is that our Makerspace will move from a place in our school to a mindset in our teachers that is fostering a value on problem-solving, helping students think more critically, and unleashing their creative potential.

About the Author

Felecia Evans *is the principal of Lander Elementary, a K–5 building serving 500 students in the Mayfield City School District. If you'd like to connect with Felecia or learn more about her work, follow her school's Twitter feed @LanderElem or her personal one @EduLeadingLady.*