

## Specifics

To begin this class, I thoroughly enjoyed that the mini maker challenge asked us to show “Who are you and where are you in your maker journey?” I believe this helped us express who we are as individual students and represent how we see ourselves as “makers.” It also encouraged us to reflect on what inspires us to create.



# FIRST

# day



## Reflection

My big “Aha!” moment was noticing how productive we were during this activity. All of us students immediately clicked into a creative mindset, brainstorming what we could design using the given materials and parameters. Observing the collective motivation and engagement made me realize how powerful this kind of project can be for fostering creativity in any classroom environment.



## Big Idea Takeaway

It is important to foster creativity and allow children to show what matters to them, as this helps build meaningful connections with peers and teachers. Projects like this truly facilitate learning by helping students communicate their ideas, knowledge, and personal connections throughout their educational journeys. I believe activities like this are highly beneficial and should be implemented in every classroom.





## Specifics

This portion of the class took place during the second half of the session, where we used natural and repurposed materials to decorate our very own pine-cone friend. Having students create their own pine-cone friends is a great way to foster buy-in, especially when giving them “pet-like” qualities. We then built small houses for them to withstand the winter. I took away the importance of creating buy-in for young students as a way to foster genuine engagement.



## Reflection

My big “Aha!” moment was realizing how simple, hands-on activities with personal meaning can significantly increase student involvement and enthusiasm. Not only would primary students be thoroughly engaged in this type of activity, but even as college students, we found ourselves fully invested in the creative process. This is yet another project that can be easily implemented in any classroom environment to foster engagement and inspire newfound creativity among students of all ages.



## Big Idea Takeaway

It is important to create buy-in for all students, whether through a challenge they must complete or by allowing them to express their creativity such as creating a little friend. This approach is highly beneficial for all learners. Using low-tech methods to personalize learning and foster independence is a simple yet powerful way to engage students and encourage ownership of their learning.

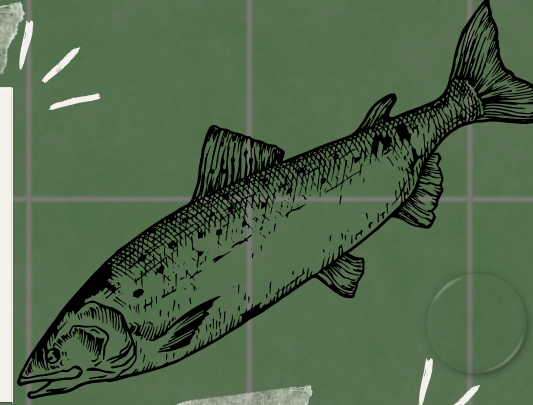


LOW  
TECH



## Specifics

This class focused on the topic of Caine's Arcade. We were challenged to create our own arcade games using cardboard, just like Caine did. We had the freedom to use any materials we wanted to maximize our game-making abilities. Ashlyn and I designed our very own arcade game using half a fishing rod (shout-out to my cousin Jim), a LEGO Brain, coding on the iPads, cardboard, tape, magnets, and a fishing lure.



## Reflection

My big "Aha!" moment during this class was noticing the progress Ashlyn and I made as we continued to iterate, creating better and better versions of our game each time. It was exciting to use a variety of different technologies to design something both fun and engaging. We realized that our game was actually quite realistic, it helped improve casting skills, and the lure even got stuck on the "weeds" in our little ponds, just like it would in real life!



## Big Idea Takeaway

It is important to show students that they can strive toward their goals, and that success doesn't always come immediately. Just like Caine, through perseverance and determination, students can reach their dreams if they continue to work hard and believe in themselves. Cultivating a learning environment where students feel supported to take risks, make mistakes, and keep improving is something I plan to ensure within my own classroom.

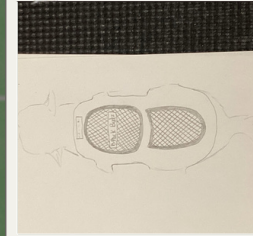
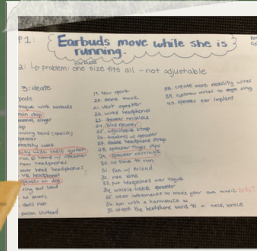
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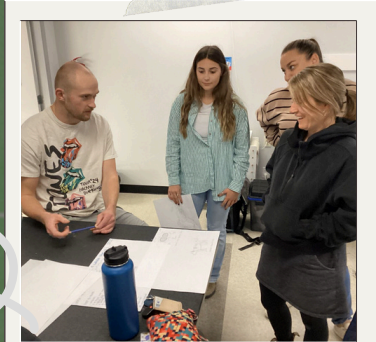
## Specifics

This class focused primarily on the iterative design process and prototyping for elementary learners. We began by discussing with a partner the basic but frustrating everyday problems we often encountered. As a group, we collaboratively selected one problem to solve and brainstormed 40 different ways to address it. From there, we chose our top five solutions and created prototypes of our designs. Afterward, we built a physical version, incorporating constructive feedback from the person who experienced the specific problem.



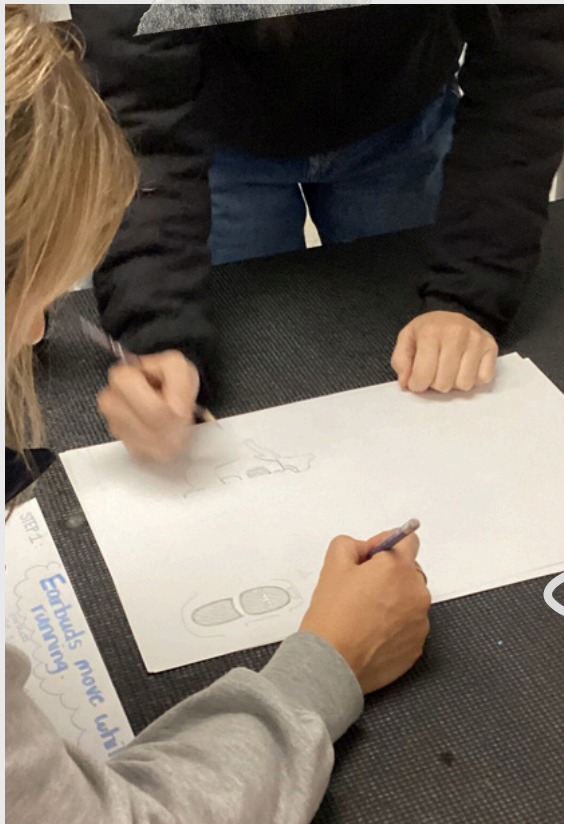
## Reflection

My big “Aha!” moment during this class was realizing how this activity not only teaches students to think outside the box when helping their peers solve problems, but also helps them learn valuable problem-solving skills themselves. It highlights the importance of making mistakes and iterating until we create something that truly works. We can’t always buy solutions, sometimes we need to design them ourselves. For our future students, this process can foster a powerful drive to invent, create, and persevere through challenges.



## Big Idea Takeaway

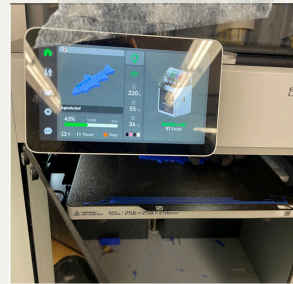
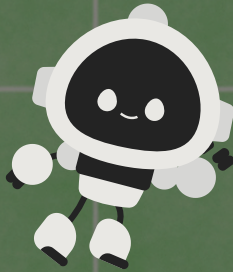
It is highly beneficial to instill a growth mindset in our students, helping them understand that even when they feel stuck with a problem or challenge, there is often a way to work around it or solve it. As I have noted in previous reflections on growth mindset, “By fostering a growth mindset through targeted instructional practices, educators can empower students to embrace challenges, persist in the face of setbacks, and ultimately, achieve their full potential.” Encouraging students to take risks, iterate, and learn from mistakes helps them develop resilience and problem-solving skills that will benefit them throughout their educational journeys and beyond.





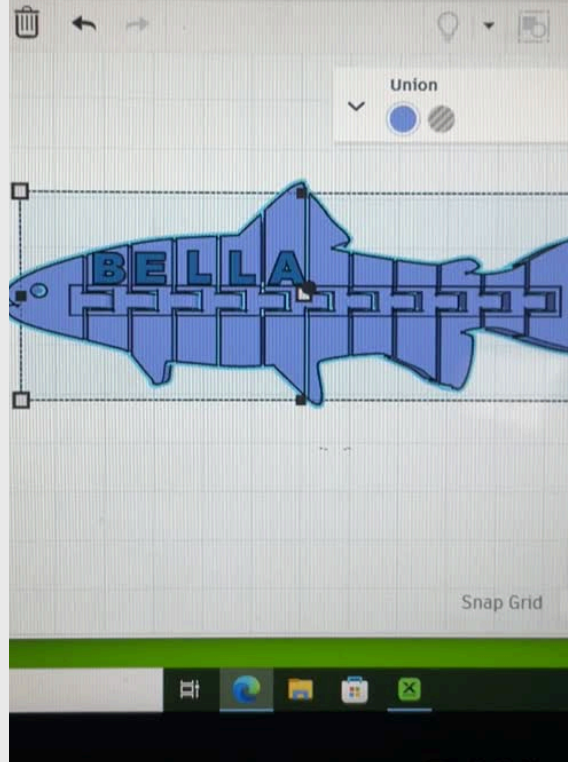
## Specifics

This class focused on using high-tech tools to create our own keychains, specifically utilizing the 3D printer and laser cutter. The endless possibilities were amazing! I created a moving fish using a template I found online, and I still have it hanging from my rearview mirror to this day. Designing and creating these pieces was challenging but intriguing, as learning a new skill is always exciting and rewarding.



# High Tech

ul Maimu-Bigery



## Reflection

My big “Aha!” moment during this class came while we were reviewing the assigned reading.

As stated in Motivation, Engagement, and Performance across Multiple Virtual Reality Sessions and Levels of Immersion, “In contrast to predictions based on novelty effects, these outcomes did not decline overall as learners gained familiarity with the systems” (Huang, Roscoe, Johnson-Glenberg, & Craig, 2021). I connected this idea to my own experience in the class: as we continued working with the 3D printer and laser cutter, I became more comfortable and proficient with the systems. This reinforced that students can benefit from repeated exposure to these technologies, and that upcoming educators can also grow their skills and confidence through hands-on practice.



## Big Idea Takeaway

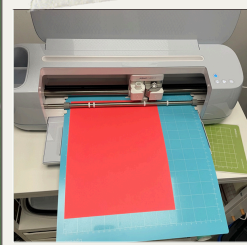
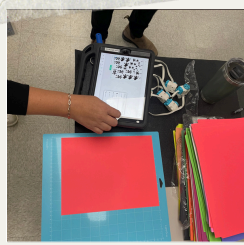
It benefits not only students but also future educators by ensuring we learn to use emerging technologies. Although not all schools have the funding to provide access to these tools, helping students learn to use them to the best of their abilities is a priority for me. By supporting students in developing these skills, we can inspire creativity, innovation, and problem-solving, cultivating a new generation of “makers” who can contribute meaningfully to society.





## Specifics

This class was an in-situ experience where we assisted Ryan in running a session in the Design Lab. Four of us students were present (half of our class), and we helped with several activities: creating buttons, cutting out frogs using the Cricut, and supporting students as they built LEGO robot frogs!



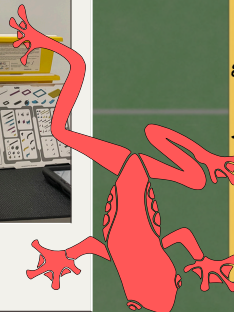
## Reflection

My big "Aha!" moment during this class came even before the lesson officially started. We had been using the Cricut to cut out little frogs, and initially ran into a problem. When we switched to cardstock, we realized it worked much better! I learned that sometimes, even with careful planning and preparation, things don't always go as expected and that being flexible and adapting on the spot is an important part of the learning process.



## Big Idea Takeaway

I believe it is important to provide students with opportunities that challenge their learning and inspire them to innovate and problem-solve while creating projects like LEGO robot frogs. These kinds of hands-on activities allow students to engage at their own level whether completing the basics or pushing themselves to go above and beyond fostering creativity, curiosity, and a sense of accomplishment.

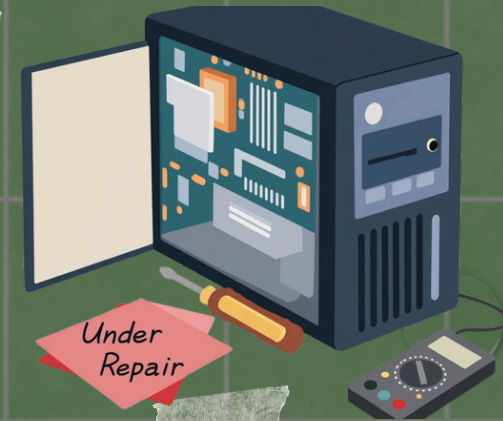
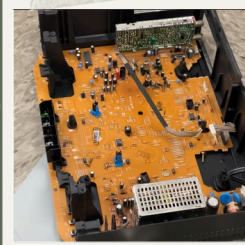




## Specifics

I took away that it is important to foster curiosity among our students, helping them understand the intricacies of how things truly work.

By showing them not only technological creations but also the wonders of nature—like the veins within a leaf—we can inspire deeper appreciation and inquiry. Leading through curiosity allows students to explore, question, and develop a genuine interest in the world around them.



## Reflection

My big "Aha!" moment during this class came when Kylie and I were taking apart the VCR and noticed all the intricate details that go into creating these machines, details we often overlook when simply buying or using them. It amazed me how intelligent and innovative someone must be to design something so complex, with motherboards capable of reading and projecting a movie. I found the entire process truly astonishing.



## Big Idea Takeaway

I took away that it is important to foster curiosity among our students, helping them understand the intricacies of how things truly work.

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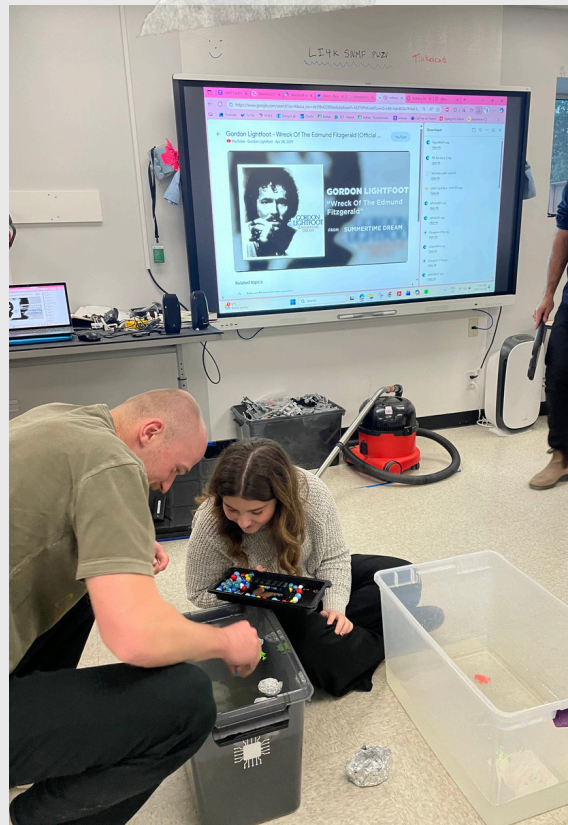
## Specifics

During the second portion of the class, we were given a piece of aluminum foil and challenged to create a ship that could carry as many marbles as possible. This challenge immediately drew my attention and sparked my competitive side. My ship was able to hold 103 marbles and even three pairs of scissors! A project like this is excellent for encouraging iteration within set parameters. Overall, I had a blast participating in this activity.



## Reflection

My big “Aha!” moment during this class happened when I made a connection to the song The Wreck of the Edmund Fitzgerald by Gordon Lightfoot. As we created our boats and tested how long they could last on the “lake” or “ocean,” the lyrics and story of the song came to mind. We ended up playing it in the background, and I felt it added a meaningful and atmospheric touch to the activity, deepening the connection between creativity, storytelling, and learning.



## Big Idea Takeaway

I felt that this activity really demonstrated how STEAM and ADST projects can engage all students while fostering a deep sense of learning. Hands-on challenges like this encourage creativity, problem-solving, and collaboration, allowing every student to participate meaningfully and connect their learning to real-world concepts.