Capstone Annotated Bibliography
Jackie Valenzo Castro

1. *"13 Easy & Fun STEM Experiments for Kids." Bigbangacademyhk.com, 2026, www.bigbangacademyhk.com/blog-en/stem-experiment. Accessed 2 Mar. 2026.*

I selected this source/article initially because it was great in giving my ideas of what kinds of projects and experiments I wanted to do with these kids: fun, educative, and simple all at the same time. I'm working with little kids, so what can little kids handle while still keeping them busy and entertained? Some of the experiments that are shown in this article would require more time than others, so that was another factor to keep in mind while choosing what would work for me and the kids. I finally listed it down to paper rockets. From the looks of it, it definitely would also interest me!

2. "Situating Constructionism." *Papert.org*, 2019, www.papert.org/articles/SituatingConstructionism.html.

One of the questions that I had to ask myself that challenged me was: "how can I back up the idea that these hands-on STEM experiments for the kids benefit them like I want them to?" I used the Google Gemini provided by the school to help me out find resources and I eventually stumbled upon this article, or idea, called "Pedagogy in Constructionism." It explains that students and children learn better by building hands-on projects, and allows them to dream and have a more creative and open mindset. I think it encaptured the words right out of my mouth and the main goal I was trying to aim for!

3. Jackie. “Thermos Project - Liya & Jackie.” *Google Docs*, 2020, docs.google.com/presentation/d/1rvcZYO3cT125WONFjBG-HpiG_l9gZ5fpNEv3eWXKHxg/edit?slide=id.g119a1ff8afb_0_2#slide=id.g119a1ff8afb_0_2. Accessed 2 Mar. 2026.

This is one of the projects that heavily inspired me to do these STEM based projects with the elementary school kids! As a middle schooler and even way back in elementary school, I’ve always had the great opportunity to get to do fun experiments such as the egg drop, popsicle stick bridge building, and this one: thermos making. I think it’s a really educational moment for students and it’s also super simple to make with the right materials and tools. It’s a great source to look back on to answer the question of what kind of creative and science based projects are the most memorable!

4. Valenzo-Castro, Jacqueline. “SLA Project Presentation - Jacqueline Valenzo-Castro.” *Google Docs*, 2019, docs.google.com/presentation/d/1ZcXqt5M3S0ya8MVuuUg9dET3LpZOO-029RKTvkbOpg4/edit?usp=sharing. Accessed 2 Mar. 2026.

This is another great example of the kinds of projects that I’ve done during my middle school days that can also be incorporated into my own Capstone lessons. This, unlike the last source and example, was the example project I used for my SLA interview. This also means that I presented this project using the five SLA core values, something that is super important to keep in mind doing a capstone project. In all, I am hoping that these kinds of projects that I look back on and have fond memories of creating, pass down to the students and future generations as well.

5. Jackie Valenzo Castro and Pauline Cheung “Pitching my Capstone Idea and Conversing,” December 12, 2025

When I was first pitching my idea to the principal of the elementary school I want to do my Capstone project at, Francis Scott Key School, I was nervous that my idea was either going to be rejected, or that I wouldn’t be convincing enough that this project is worth investing time on. The principal of the school, who has been an educator for years, absolutely loved the idea and told me to go for it! The reason I’m putting this down as a source is because if this project I’m doing ever becomes a sustainable project, this school is truly a really great one to reach out to!

6. “STEM Activities for Families – Engineering Lesson | NASA JPL Education.” *NASA Jet Propulsion Laboratory (JPL)*, www.jpl.nasa.gov/edu/resources/lesson-plan/stem-activities-for-families/#engineering.

This source is another website full of fun and creative STEM experiments that are really kid friendly and simple enough to do at home. Going about my research more and finding what kinds of experiments I want to do with these students/kids, I stumbled upon this website that not only gave me engineering and science based projects, but also gave me mathematical ones as well! In my opinion, I am for sure that this is such a reliable go to when it comes to discovering educational and fun things to do both in a school setting and also at home.

7. Valenzo Castro, Jackie. “Freshman CTE Engineering Projects” 2022-2023

Looking more into inspiration for the types of projects I wanted to follow through with, the first initial thoughts that came to mind, and were also pretty recent, were the freshman projects we had to do for engineering. The Balloon Car races, the popsicle bridge building, the toothpick and

gumdrop tower challenge, it all came flooding back into my memories. It's definitely one of the things that has inspired me to sign up for CTE Engineering. As a source of inspiration, it's a building block for creativity and opportunity, which is exactly what I was looking for when first asking myself all these questions.

8. Tungate, Caitlin. *Digital Commons @ CSUMB Digital Commons @ CSUMB Capstone Projects and Master's Theses 2013 Arts and Crafts in Elementary School : Blending with Curriculum Arts and Crafts in Elementary School : Blending with Curriculum*.

This article talks about blending a students school curriculum with arts and crafts, and how this can positively impact a student's ability to learn. The whole goal and point of my own Capstone is for these experiments and projects to be a little break or creative relief from the students normal classes and assignments – where the only thing they have to worry about is just being creative! I think this is a reliable source for those who want to back up their goals and thesis statement for their capstone project, like mine! I would consider it reliable due to all the research behind it and even with example proof and pictures towards the end of this research paper.

9. TEDx Talks. "What Do You Want (to Be) When You Grow Up? | Sarah Swift | TEDxSHSU." *YouTube*, 20 Feb. 2024, www.youtube.com/watch?v=y-ajN3ehTjQ. Accessed 2 Mar. 2026.

This video talks about the dangers that the question: "What do you want to be when you grow up" raises and just how toxic that question can be to a kid who hasn't been exposed to virtually just anything of the real world. What if something doesn't go according to plan, what now? I find this source to be a reason and primary source of exactly why my Capstone project matters: to

prevent the exact problems that come with that question. Kids should be able to be exposed to the variety of career options and opportunities they have without having to go blindly into it, and thus, blindly having to answer those types of questions.

10. Valenzo Castro, Jackie. Teachers/Staff of SLA and F.S Key Elementary, 2025-2026

There's not a source more available to me and in front of my eyes than the very staff, teachers, and educators, of SLA and Francis Scott Key School. I've asked various teachers around the school how hard it is being a teacher, how's the curriculum is like, etc. If I want to be a leader, leading the students and teaching them in the right direction I want them to learn, then I have to put myself into the shoes of a teacher. Obviously, teachers are a true and honest source when it comes to advice like Capstone advice or just in general everyday advice.