

CAPSTONE CHALLENGE EXAMPLES

Below are some examples of actual capstone projects 8th grade students have completed. These examples might or might not have a science theme, but they should give you some ideas as you approach your capstone project.

For my Capstone project, I am researching different types of cancer and how it is different and similar throughout all ages. I am volunteering at the Longmont United Hospital every Saturday morning and helping the patients with their needs. It has been a great experience to be around and help people who are battling cancer. I also made a bunch of fleece tie blankets and donated them to the Children's Hospital Pediatric department, because based on my research children can get cold during chemo and other treatments. I have really enjoyed learning about cancer and it has really impacted me as a person.

For my Capstone, I am writing a play and teaching an acting class to preschoolers for my service aspect. I decided to write a play because I've always loved acting and being on stage, but I also enjoy creative writing. For the service aspect of my project, I decided to teach an acting class to BCD preschoolers, because I love spending time with little kids and I thought that it would be a great way to convey my passion.

For my Capstone this year, I really enjoy art so I decided I wanted to teach a class. I'm teaching 3rd-5th grade students for a week after school. We're exploring painting in light and colors, and I'm going to help them. I thought this would be really fun, and I'm super excited to do my project.

My Capstone project was how to become a commercial airline project. In order to involve community service, as well as further increase my knowledge on the subject, I joined the civil air patrol, CAP. I have spent many hours learning the facts on planes, how to drive the plane, and the necessities to being the complete and perfect pilot.

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In Capstone I am making an art project on epoxying mosaics. I went to a thrift store and bought old buttons, beads, tiles, and other supplies to make a collage. I went to a nursing home and interviewed an elder, Johanna Sword, and made a collage representing her life. For example, she lived in Germany and watched birds fly over the buildings. I collected materials representing buildings, birds, and Germany and put in on the mosaic. After I finished, I poured epoxy (basically a clear cement) on the mosaic and used a flame torch to set it. I chose this topic because it interested me. I learned many things including how to talk to the elderly, how to make a mosaic, and how to epoxy one.



For eighth grade I am doing a Capstone project about law. I got to watch a lot of cases and research them. My favorite part was watching a mediator judge settle a case. It was really interesting there were two interns attending CU that also were watching the case get settled. It was interesting because I got to see the judge talk with the person asking for money, the plaintiff, and the person who didn't believe they should pay money, the defendant. In just a few hours he had settled a case. It was a really interesting, personal, and efficient way of settling a case.

For Capstone I chose to study light. I chose light because my grandfather is a light designer for some notable buildings such as the Louvre or the Reichstag. I chose him to be my mentor to teach me the basics of lighting. I learned what light is, how it works, and how to think when approached with a task in lighting.

For Capstone I sewed blankets and handed them out to the homeless community. I did this project because I love to help the less fortunate. There is nothing better than seeing a big smile from someone when you do something. I learned how to work with other people to accomplish one goal.

For my Capstone I am raising and training a guide dog for the blind. It helped me realize that you need to manage your time with the guide dog, friends, family, and sports. I picked it because I really wanted to give back to the community and help someone who can't see to help them get around better.

For my Capstone project I chose to make an album through the software GarageBand in order to get to know the program and become better at improvisation on guitar. I have played guitar for five years and I feel this project fit well into my guitar playing. I chose this topic because I was interested in making music. That is the subject that my research paper is on also. I learned many things through this process, I learned how music helps aid memory, I learned some other ways people can produce music, and I learned how music can deepen relationships and change people's moods. Overall, Capstone is a great project that teaches many skills.

For my Capstone project I went to Nicaragua to build stoves in a community called El Rincon. The issue in El Rincon is that all of their stoves are not fuel efficient and are not vented. This is an issue because when someone cooks in the house anyone in the house is effected by the smoke. When they cook, it is equivalent to smoking two packs of cigarettes a day. While we were down in Nicaragua we built 8 stoves between the four of us that went. We had two people from El Porvenir help us build the stoves and lots of support from the community. It was a great experience because everyone was so happy even though they had close to nothing.

My Capstone project is building dirt jumps on my family's new farm. I love biking and I started going to Valmont Bike Park a few years ago. Dirt jumping is my passion and I love doing it so I wanted to build jumps. I found a mentor who has built dirt jumps before and I also had to do plenty of research on dirt jumps. My mentor also knows a professional dirt jumper who I got to meet and they are both helping me to build the jumps. Hopefully I will be able to progress even more with my new dirt jumps.



For Capstone, I chose to invest into the stock market through an app, like we did in the exploratory with Mr. Bowyer. I wanted to invest into the real stock market, but certain things changed my mind and made me reconsider, although it was not the exact project I wanted to do, I was still able to invest and get a rough experience with the stock market. From all of this, I learned the ins and outs of the stock market all the way from what are the different types of things you can do to a stock all the way to the best vs. the fastest way to make money in the stock market. This was a great project for me to get some experience in the stock world and I hope to continue investing in the future.

For my Capstone I am 3D printing limbs, specifically hands, for the disabled. I chose this because I like 3D printing and helping others. This was a perfect mix of the two and so far I have really enjoyed it. I am working with my mentor, Edoardo Rizzi, who has worked in design and coding for several years. This project has helped me learn how using this advanced technology can actually help the unfortunate in this world. I have really enjoyed my Capstone experience.

For Capstone, I chose to work in the stock market, and invest in three stocks, Disney, Hormel, and Disney. After I finish, I will donate 50% of what I have in the account and donate it to a foundation of my choice. It has been a struggle in the past six months with a shaky market ever since I started investing, the market has gone downhill fast, but thankfully, has gone back up and is doing well. I chose this because I have really grown to love how the market works and what happens to people in it. It is a great way to learn money, and I would love to do this in the future as a job, and it is a great starting point for the future. I learned that the market is much more complicated than you think, and it is very easy to gain money and lose it. There are so many factors for everything but in the end, it was a great project and I am very happy I chose it.

My Capstone is making an under garment for the cold weather. I am selling this under garment and donating all the profits to charity. The charity I will be donating to is a charity that helps abused children and women.

I chose to study pollution in the Indian River Lagoon through photographs for my Capstone project. I chose this because the Indian River Lagoon is a body of water that is close to my family in Florida, and I really like photography as well. I printed my photos onto canvases, mugs, and address labels. Through this project I have learned a lot, not only about pollution, but about businesses and how much work it is to run one efficiently. I'm trying to raise awareness of the problem and inform others about what they can do.

My Capstone project is one of my other favorite parts about BCD. For my Capstone Project, I am learning the fundamentals on how to write a song. I want to be a professional singer/songwriter when I grow older. I have been working with Kim Dawson to finalize my songs that I have written. BCD has given me so many opportunities to share my music and my talent. Overall I would say that my favorite year at BCD, based on all the subject that I have mentioned, was eighth grade.

For my Capstone project, I looked at multiple different types of fractures in dog bones and how they heal with a cast or surgery. For my service hours, I shadowed a veterinarian to learn what it was like to be one. I saw many different animals and how the vets dealt with the emergencies they came in for. I enjoyed learning about fractures and how they heal because my dog broke his toe over the summer and now I know how the bone healed in a cast. I have learned a lot and had fun doing this project.

My Capstone project is learning guitar. I am going to perform at a senior center for the community service aspect. So far, I have loved my project. I chose it because I have always loved music, and my grandfather would always tell me how much he loved when people would come and perform at his senior center. I have learned many lessons through this experience, such as how to play guitar, important lessons on procrastination, and how to manage a yearlong project.

My Capstone project involves baking gluten free bread and working at a bakery and learning all about how a bakery works and loads of tip and tricks on how to bake. I have enjoyed this project and I have learned so much about gluten and how it effects people. I have done so much on this project and learned so much, and it has prepared me for high school.

For my Capstone project I am building a lacrosse stick with 3D printing. I am doing this because of how much I love the sport of lacrosse. I also enjoy designing as well. I am working with Jonathan Schoenberg and he is the owner of TDA in Boulder. TDA is a company that designs commercials for entertainment. This will affect me throughout the rest of my life and this might be what I want to do in my future.

For my Capstone project, I am painting a mural at the Boulder Homeless Shelter. I have interviewed many artists in different areas. My research paper topic was how art affects a community and I have spent a lot of time painting, designing, and planning the mural. I will be finished with it in the beginning of April. I also spent time learning how to paint with oils and developing my inner voice as an artist in order to paint the mural. I think that the actual project is very interesting and I have learned a lot from it. I have always been an artist and have loved to create art so this project was perfect.

For my Capstone, I have drawn 5 different military related cards and sold them to raise money for veterans. Each stack of cards has 5 cards, and I sell them for \$10 each. The money goes to a military organization that helps veterans. So far I have sold around 85 stacks of cards, which has raised \$850 in donations.

My Capstone project has been a very interesting experience. My topic was building a bike. I helped the community by volunteering and helping to give away bikes to kids that cannot afford them. I chose this because I love biking and I like to help my community. I learned a lot about how much biking can change people's lives. It was a fantastic experience and a great way to end my time at BCD.

**Additional examples/ideas can be found by following this [link](#).
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