

SchoolsNEXT 2020
Team #8
Cornwall Charter School
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Learning Environment

At Cornwall Charter School, we use many different strategies to enhance our students learning capabilities. The two main strategies we use are Project-Based Learning and Inquiry-Based Learning. Project-Based Learning (PBLs) is when students follow the design process and use a combination of their own knowledge and research to come up with a unique solution to their given driving question. Inquiry-Based Learning ties into Project-Based Learning because we have our teachers pose a question that needs to be answered. The question then can be turned into a project that answers the question asked. This allows students to have a deep, hands-on understanding of subjects and allows students to dive much deeper than traditional learning. For example, in a normal school, you might just learn math by looking at graphs and understanding the equations. But, with Cornwall's education model, you might learn about graphs by looking at the trajectory of a ball being dropped from a roof. The larger classrooms that Cornwall boasts allows students to explore the endless possibilities of learning and allows the teachers to work in a safe and comfortable learning environment. Our fusion of learning models allows our students to fully grasp the concepts that they are learning. Furthermore, every day after school, we provide Cornwall students with the time to advocate for themselves and ask their teachers for help. After a hard day of learning and work, students can have fun and play sports they are interested in to clear their minds and keep themselves fit. The sports also encourage student to student relationships and because of encouraged teacher involvement, improved student and teacher relationships.

Community Environment

Cornwall Charter School is situated in Grass Valley, California. Grass Valley has numerous features that can make it hard abuse issues, and a crime rate 60% higher than the national average. Because of this, Cornwall makes it a priority to gradually change the culture around drugs in Grass Valley by introducing a more healthy lifestyle to our students. We are hoping to provide healthier food options by taking food directly from the garden, which we hope the community will help to maintain. The garden can help provide community members a place to help out their community and just have some fun seeing the progress of the garden throughout the years. Every Monday for dinner, parents can come in with their kids and cook nutritious food from sustainable farms and the garden to help teach kids and parents about leading a healthy lifestyle. Also, this program allows kids and parents to have a family dinner without it being a burden. In addition to this, every Wednesday, we will have a clinic on health and well-being that parents can go to, this will allow the parents to try and reduce drug use and act healthier. Eventually, we hope this will spread to the kids and improve the community overall.

Physical Environment

Grass Valley is a place where the summer months are very pleasant, however, that is not the case during the winter. On average Grass Valley gets 55 inches of rain and 11 inches of snow, this means that Cornwall's buildings will be designed with non-flat tops to protect from roofs caving in. These sloped roofs will then lead into a gutter system that will go through a soft filtration to then be used as clean water for our school. This water reclaiming system will improve Cornwall's sustainability and be beneficial to the climate that we live in. Another aspect of Grass Valley is the cold weather throughout the school year. Even though the temperature fluctuates, going from 39 to 88 degrees throughout the year, during the school months, the average temperature in the month's school is in session is about 51 degrees. Our parking lot will also be covered by solar panels to provide shade for the cars and also as a way to reduce our power draw from the grid.

Design Process

Our process for designing our school started with our mission. We tried to create our campus and education model from our mission. We then designed our buildings, keeping in mind sustainability while maximizing our space. We then prototyped by making different iterations of buildings. For example, we tried making a full-sized track and field, but when we realized that it was too large, we went back and redesigned it, eventually coming upon our current gym design. We tried to empathize with the community, and after reading about the city, we realized that a factor of the rampant drug problem was overall boredom in the community. Many children live in homes in disarray, and we wanted to design a system that could protect them. Having state of the art sports facilities allows our students to participate in a separate community, and occupy their time after school, as opposed to exposing them to potentially dangerous situations outside of school. We prototyped different campus designs and moved our buildings around to an optimal design.