

Anchorage STrEaM Academy SchoolsNEXT!

Introduction:

We are a group of students from STREAM Academy. Our Mission Statement is, “Anchorage STrEaM Academy Empowers Students To Be Involved Learners, Critical Thinkers And Engaged Citizens Who Are Inspired By The Natural World.”

STrEaM is a middle school with a unique learning system that is centered around hands-on projects, outdoor education, and reaching out into the community. Our core values are focused around the STEM (Science, Technology, Engineering, and Mathematics) curriculum. In each grade, 6th, 7th, and 8th, we have a STEM-based class, as well as a science STEM class. But not only do we have a STEM course, the “r” and “a” were added to STrEaM to stand for art and research. We want our own building because we have to share one with Wayland Baptist.

STREAM Academy offered an after-school program called Schools Next, which is a fun and educational architecture club. Here’s why people joined it:

“I joined Schools Next because I love architecting and designing things.”

- Maya, 6th grade

“I came to Schools Next because it looked interesting.”

- Izzy, 6th grade

“I joined Schools Next because I had friends that were doing it.” -

Maddie, 7th grade

“I joined Schools Next because my mother told me about it and I liked the idea of the setup.”

- Bianca, 7th grade

“I like Schools Next because it’s architectural learning.”

-Iris, 7th grade

“I joined Schools Next because I worked on something with Ms. Gatlin and she thought that I would like this too.”

- Jazmin, 8th grade

“I joined Schools Next because I wanted to do more architectural things.”

- Brazos, 6th grade

All about STRTEAM

WHAT IS a STRTEAM?

Each grade level has its own STEM course, including a science STEM class. The 6th grade STEM course is robotics, where they build and code Lego robots that can move through different challenges. The 7th and 8th grade courses for STEM are Applied Technology and Fab Lab (fabrication laboratory), where the students use their knowledge and creative skills to build and create things. For example, the 7th graders built a trebuchet (a type of catapult) using the dimensions for the sling and lever arm. The students also have a Science STEM class. The difference between the Science class and the STEM class is that Integrated Science touches down on anything required, while STEM goes beyond that. Another one of our prime focuses is outdoor education. We don't have much of a set recess except for any time you have left from eating lunch, but every class has its break time. Break time is either spent in the parking lot or the Cage (the Cage is just a fenced off area, not an actual Cage, so do not worry). Lunch is mostly outside as well (partly because of Covid), and P.E is almost always outside.

We also go on a lot of treks. Our goal is to have each grade go on an outdoor trek each quarter. So far this year we have been to Kinkaid (6th grade), Arctic Valley and Cheney Lake (7th grade), and Bartlett High School (8th grade). Right next to the school there are some trails that we walk on often which we call the loop. Another place that we go to is Foothills Park. On an average day, a STRTEAM student will spend about an hour outside. This includes when the temperature gets below -10°F .

Teamwork is another big part of our STRTEAM curriculum. Most of our projects are done in teams, for example, as we were building our trebuchet; we were all working in groups. As the sixth graders programmed robots, they worked in groups. We also have a lot of discussion on what it means to be a good teammate.

1. Pausing
2. Paraphrasing

3. Posing Questions
4. Putting Ideas On The Table
5. Providing Dada
6. Paying Attention To Self And Others
7. Presuming Positive Intentions

Like mentioned before, our school curriculum is very hands-on and engaging. From dissecting frogs to paddling a cardboard boat across a swimming pool, we probably do about six or seven projects each quarter.

THE NEW STReAM SITE

Unfortunately, the building we are using now is not nearly big enough to hold all of the things needed. If we were able to have a bigger school, who knows what we would be capable of. With a new building, we would be able to have a proper auditorium. We would be able to have a proper library. We would be able to work on even bigger and greater projects. We would even be able to reach out to more students. What I mean by that is that we would be able to have more SPED classes, add braille to the door knobs of each room, and be able to hold more students in the first place. After looking around Google Earth and collaborating together, as well as with our principal, we finally decided to choose a lot near Begich Middle School. We chose this location because it had already been zoned for school use. It is also in East Anchorage which is part of our schools charter. Since this lot is right next to Begich, parent pick-up and drop-off would be easier because a lot of STReAM students are zoned for Begich. Begich also has school buses so STReAM students could ride the bus to school.

There is also a stream on the site. This could help us with our science program in testing the water and probably many other projects as well. Having a STReAM stream would be great to incorporate in our ecosystem. Also, having a STReAM stream would just be SUPER cool! Having access to a playground would also be great. Currently we don't have a playground, and having one would be a big improvement. The site that we have chosen is located right across the road from Chanshtnu Playground. We tend to leave campus a lot to farther places, so the fact that it is across the road should not be a problem. One of the features of our current school that we want to incorporate in our new building is the Cage. It's more like a backyard or a fenced off area where we sometimes eat lunch, or go on break in. The cage is also where we have the storage sheds. We currently have a sledding course in the cage that was made by both students and teachers by piling up snow throughout the winter.

SUSTAINABILITY

Considering that we are an outdoor school and have a STEM-based course, it's only natural to have our building nature friendly. Here are the ways we decided to make it so.

We will have a greenhouse on site near the STrEaM stream. (Some of the water from the STrEaM stream will be used to water the plants and conduct experiments in the greenhouse.) Food grown in the greenhouse could be used in the cafeteria. This could encourage students to sustain a healthy diet. This could also help us with our science and STEM class and open up many more possibilities for projects. Having a greenhouse could also open up possibilities for electives in agriculture. Another factor to sustainability is solar panels. In Alaska, the sun stays close to the horizon for most of the year. Also the sun rises in the east and sets in the west. Considering these two facts, we figured that the best and most efficient place to put our solar panels is on the south wall of the school. These panels will power the school and make it more sustainable. Another way that we will be energy efficient is not using as much electricity with the lighting. The way we plan to accomplish this is to have skylights for the second floor of the building. We will also have to install a few electric lights for the morning in the winter time, but having skylights will reduce the use of electricity by a lot. Of course, the bigger the building, the harder it will be to be more nature friendly. This is why we decided to make our school smaller in size. But sustainable energy isn't the only thing that could make this school more environmentally friendly. We also plan to have a giant recycled trash dragon circling the top of the library tower. It will be similar to the recycled trash octopus in the Seward Sealife Center except bigger. This dragon is also one form of art that will be incorporated in our design. A tree in the lobby will be something that we incorporated into our design, because trees are amazing, and also because it would make the students feel more surrounded by the outdoors.

COMMUNITY OF STREAM

Our school is not just a school; it is a community. There are so many times when we get together and discuss a certain topic together (socratic seminars). We are also very small, having only about 170 students total. This results in people recognizing pretty much everyone in the school. We are always trying to introduce students to the community. This could mean anything; from just walking through a neighborhood during one of our classes to doing outside seminars to taking public buses for Wednesday project time. We also try reaching out to the community. Because we're a small school, we are trying to find more kids to come to our school. Being able to reach out to our own students is also very important as well. That is why we have braille on the door knobs, extra rooms for SPED classes, and elevators. Doing this would help more students at school and make them feel more welcomed.

ART

Despite a lot of the students' love of reading, our library right now consists of only five book shelves; 2 tall and 3 short shelves. It's really quite sad. This is why we went out of

our way to design our library to stand out. In our design, the library is a three-story tall tower, medieval style, with a recycled trash dragon circling the top. Inside the tower, there are three platforms. One for each floor. This includes the one on the ground. The first platform will have a few tables set up, chairs, bean bags, and couches, as well as a few reading windows. In the very center is the start of a spiral staircase that leads all the way to the third level. On the circled walls, there will be shelves of books. The only break in the shelves will be the doors to the library. Before you enter the building of our design, there is a statue of a fountain. In the water there are pretty fish (Pacific Salmon) swimming. Students will be able to feed and interact with the fish. We thought that this would be nice to add because as new students, parents, and just anybody in the community are entering the school, the state could be a sign of welcoming.

REALITY

We were told that we did not need to worry about the cost, but because we wanted our design to be considered when the real building was built, we decided to make it realistic. For instance, we decided that we should make it reasonably priced. The building will probably cost around 9 to 10 million dollars, which is not very much for a school. We had a lot of ideas to include, such as a Mars probe, or a time machine, but decided to not include them. The STrEaM advisory board mentioned some things that they would like to have in the new building and we decided to take it into consideration. For instance, they requested for each classroom to be at least 600 square feet and in our design, it is pretty close to that. They also said that they would want at least 14 class rooms, which we did.

SUMMARY

STrEaM is a school with a unique learning style, where students get the opportunity to learn by collaborating with their peers and doing hands-on projects. STrEaM deserves its own building, and that is why we decided to start designing it. We know that not all of our ideas will be incorporated, but we hope that the design will be taken into consideration.

STrEaM STORIES AND QUOTES - why new students should join us at our NEW STrEaM Academy!

“I came to STrEaM because of its project based learning and outdoor curriculum.”
-Katahdin, 7th grade

“I came to STrEaM because apparently it’s a good school. I don't regret it at all.”

-Alora, 7th grade

“I like STreaM because the students and teachers are really nice, I can get better grades, and I also really love math.”

~Josephine, 6th grade

“I like STrEaM because it is a very hands-on and engaging school and I continue to go here because the community is amazing and I love the staff and students.”

-Sariah, 8th grade

“I like STrEaM because I like to do cool projects and it's really fun, and I came here because my brother used to go to this school and he really liked it.”

-Landen, 8th grade