Teeland Middle School
Wasilla, Alaska

Tri-Peaks Integrated Middle School Narrative

This year, Teeland Middle School's Design team created an ingenious theoretical school of the future named *Tri-Peaks Integrated Middle* School "Building our future and community one mountain at a time". The building and campus themselves are educational tools for teaching the importance of reusable energy resources, recycling, fish and game habitat conservation, sustainable food production, and community partnerships.

When we designed our model, we decided that we needed a unique, integrated design. Our first idea a wind turbine shaped building that represented sustainability; however we wanted to have a cultural and Alaskan theme. After surveying the community on their ideas for a new school, we decided on a design with three wings representing mountains and a central common area reflecting Native Alaskan home architecture. The design is more eco-friendly and looks like landscape seen from Wasilla. The school's wings have an aerodynamic shape to prevent snow drifts, which can be a large problem in our windy valley. The sides of the school are covered in vegetation, mimicking native dwellings, and lowering our carbon footprint by being energy efficient. The top floor of each wing contains a solar-paneled glass dome that integrates inside and outside spaces.

Our school has the integrated themes of community, environment, and sustainability. Each wing focuses on one of those themes. Sixth grade is in the Community Wing; seventh grade in the Environment Wing; and eighth grade in the Sustainability Wing. For each grade, the students will learn about the aspects of each of the three topics, but their primary focus will be on their wing's theme. Each wing has four floors; the middle two consist of classrooms, and the top and bottom floors are all unique.

Each wing is independent from the others. The Community Wing's underground floor holds the fitness area. It includes two full size gyms, a weight room, a yoga room, and locker rooms. The first floor of the Community Wing consists of five classrooms: special needs, band, choir, art, and industrial technology. The top floor is a media center with a library and a commons area. The Environment Wing's bottom floor is a hydroponic garden where plants are grown for our organic lunches, and is the central area for the fish pond and the stream that runs throughout our school. The central commons area includes the administration offices, cafeteria, and lockers, while the top floor is an observatory. The Sustainability Wing's top floor holds the vertical wind turbines that collect energy while being bird safe.

We included all necessary safety precautions for standard and special needs students. There are numerous emergency exits, fire alarms, carbon monoxide detectors, and fire extinguishers throughout the school. For wheelchair and elderly access, we have ramps which follow ADA format by having a greater than 1:20 ratio. The school's air meets IAQ (Indoor Air Quality) expectations. We have elevator access next to the stairs. The school has TDD's (telecommunication display devices) available for usage. For all the special needs students that attend, there are automatic doors, padded time-out room, sensory room (with a swing, heavy blankets, trampoline, etc.), personal intercoms for immediate service, and wheelchair accessible bathroom stalls.

This is a school of the future, so we decided that every student should be loaned a portable computer that can be used in place of paper to save trees. Teachers will be able to give assignments via the devices and discipline off-task students without disrupting the entire class. Visitors may use kiosks while using the facility. Textbooks will be the online editions to eliminate the usual hardcovers. This is a paperless school.

Community is one of our key concepts; the community involvement with our school. The swimming pool is open to community use, as well as the fitness center and observatory. Outside of our building, there is a community garden. Some of the food grown will be donated to local food banks. Mentors from the community come and teach the school's afterschool activities.

We have some key features for the sustainability aspect of our building. Waste is recycled into plant food for the hydroponic gardens. Hydroponic gardens are vertical gardens that purify our collected stormwater and grey water for drinking and moistening the air. The tableware used at lunch is reusable, as to lower the amount of garbage. All of our power comes from the solar panels, wind turbines, geothermal power, and hydroelectricity from the onsite Cottonwood Creek. All of these things help to lower our carbon footprint. The school exceeds the LEED standards.

The school we designed would be beyond an extraordinary place to go to school, where students would have fun while learning about things that apply to real life. Community, Sustainability, and Environment are real concepts that, if learned now, will prepare students for the road ahead.

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