

Career and Technology Centre, Calgary Board of Education – student presentation at September 16 panel session

Hello, my name is Jessica Nelson and I am a grade 12 student at the Career and Technology Centre in Calgary. This is my 5th straight semester taking a course here called Energy and Environmental Innovations. When I first started out, I definitely had no idea the opportunities that a background in climate change, the energy industry and environmental education had to offer. I keep coming back and keep creating new projects for myself because I want to make the world a better place. I love seeing how human rights, humanitarianism, climate change, the energy industry and the environment all connect.

Hello everyone, my name is Colin and I'm another student in this program here at the CTC in Calgary. I've always had a passion for exploring the natural world around me and took every opportunity I was presented with when I was younger to explore the outdoors. I wasn't sure how this would continue when I got to high school and it kind of seemed like it was time to hit the books more rather than be in the environment.

When I found this class though, I was able to continue my passion towards things bigger than just calculations. I slowly nourished my desire to change the world for the better through my learning within the class in addition to reading and exploring my passions outside of school. I'm inspired largely by two heroes: Albert Einstein and Carl Sagan, two people who for much of their life were in the pursuit of bringing the wonders of life and the universe to as many people as they possibly could. I too see this as a worthy aspiration and wish to continue pursuing it for my whole life. All of this passion wouldn't have developed to this extent without the basic learning about the environment, sustainability, and responsibility that I received here in this program.

Here in this program, we take on all sorts of environment-related projects. We have students doing everything from hands-on design-build projects for aquaponics systems to students trying to influence green building policies or establish community gardens on vacant City land.

In my first year of my studies, I completed a feasibility study of putting solar panels on a double gen-set hydraulic fracking rigs. We worked with Chevron, the Alberta Energy Regulator and NAIT's alternative energy department to look at these calculations.

Last year, I started connecting to the Alberta Red Cross to look at how climate change should mean that youth are more knowledgeable involved in disaster preparedness and disaster relief. I also spent a semester creating a document called, "Giving Canadian Youth Voice at the Paris Climate Talks." This project was a lot of work, but it taught me some amazing lessons. I contacted over 75 high schools and junior highs across the nation, asking youth three simple but yet so-complicated questions about what they would like to see Canada take on at COP21. I received very few responses back from students at these schools. I produced the document with the data that I did gather and it was circulated and read at the Paris talks and I received a letter thanking me for my efforts by Minister Phillips.

However, my biggest success from this project was realizing that the reason my paper didn't have more data or feedback was because students could not respond to the questions because

they simply were not educated about the issues surrounding the climate change. Students who responded were those who already possessed a connection to the environment outside of their classroom. For the rest of my peers, they learn next to nothing about the implications of climate change or issues in the energy industry. Building off of what Jessica said, we feel that as students learn about the environment, more will develop a passion for it, and those that don't will build the understanding of it which will allow fluid change within our society.

In the end, changing education, although long term in affect, would be the single most influential act in moving Alberta towards a future with better climate leadership and a more welcoming environment for energy efficiency and low carbon solutions. It is also our belief that a way to solidify thoughts about the environment in students would be through changing the environments within which we learn, in my classroom there are multiple living walls, carpet made of recycled fishing nets, microgreens being grown for sale to restaurants, and solar panels on our roof.

Recently, I've been inspired to make solar more of a common occurrence on schools. I've worked with CBE officials to determine the viability of large-scale solar installation on the 250 school roofs we have here in our School Board. I was amazed to find out that this possibility wasn't actually that far off. I'm continuing to pursue what I think is a practical idea to help Alberta meet its renewable energy goals and help educate youth about renewables at the same time.

If more schools were environmentally friendly, sustainable, and showcased the technology with which we can drive climate leadership in Alberta, from a young age students would look to the school as a role model for their own futures and because of their familiarity with carbon reduction technologies and practices, they would lead more sustainable lives themselves. So basically, change what we learn, change where we learn, and the change to a more sustainable energy efficient Alberta will be soon to follow.

We've been fortunate enough to have some amazing experiences and opportunities in this program. We'd love to see this type of education go more mainstream here in Alberta. We think it's absolutely necessary for the future of our Province. As Colin said, we think immersing students in new sustainable technologies and real projects that are going on in the province and beyond is an excellent way to have this happen. First and foremost, we need to get students outside and connected to nature. It's never been so important.

Thank you from all of us at the CT-Centre. WE look forward to hearing more about Alberta's efforts.

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