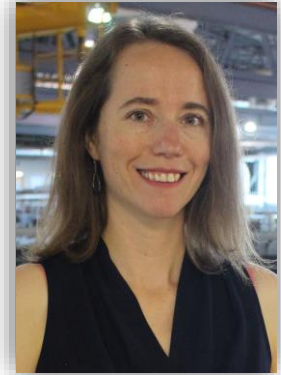




JOYCE MCBETH

GEOMICROBIOLOGIST; ASSISTANT PROFESSOR
UNIVERSITY OF SASKATCHEWAN



QUICK FACTS

Joyce is an Assistant Professor in the Department of Geological Sciences at the University of Saskatchewan. She holds degrees in Geological Sciences from the University of British Columbia (B.Sc.), the University of Missouri-Columbia (M.Sc.), and the University of Manchester (Ph.D.). As a geomicrobiologist, Joyce studies bacteria that live in mine wastes and contaminated water, and she works to understand their role in the chemical behavior of toxic metals. Joyce is also an award-winning teacher, with a passion to empower her students to learn more about the Earth and also grow personally and professionally. The *Girls In The Classroom* project was fortunate to have Joyce share her excitement about Earth science and education at the following event:

Event: Girls Discover Stem
Mine Cycle Stage: Discover
Date: May 26, 2019

School: Various SPS Schools; La Ronge, Yellow Quill
Grade Level: Middle Years
Curriculum Connection: Career Pathing
Lesson Plan: www.girlsintheclassroom.org

Q&A WITH JOYCE

Why did you want to be a part of the "Girls in the Classroom – Unearthing Career Opportunities in Mining" project?

I really appreciate the work Deb has put into developing this program, and I think it's important to support her efforts and step up to serve as a mentor figure for girls participating in the program.

From your perspective, what was the most meaningful information that you shared with the class?

One of the biggest challenges I see for women in science and engineering is gradual attrition due to pervasive "can't do" attitudes (their own or imposed upon them by others). Developing a growth mindset - openness to putting in time and struggling to build new knowledge and skills rather than relying on innate ability - is important for overcoming these obstacles. E.g., Math is hard. This is true for many people, but you can learn math even if it is difficult if you are persistent, and it's very satisfying to overcome these obstacles. Helping young people to recognize that persistence is something they can cultivate, to see the satisfaction of overcoming other people's low expectations, this is something I think is very worthwhile. As an educator, the GITC program is an opportunity for me to explore this perspective with the participants. It is an opportunity for me to learn more about young people's experiences and perceptions, and to share stories of other people's success in persistence. Women can find support and encouragement in many places, and that it is ok to reach out and connect with people outside their normal circle to find that support if they need it.

How does the project benefit the various stakeholders (teachers, student, industry reps/company and industry as a whole)?

I am certain there are benefits in terms of educating the community broadly in the important role of the mining industry in this province, and career opportunities for youth. I also think the project provides important opportunities for young women to identify role models, women who have built careers in industry and strived for success, and to learn about their struggles and find people they identify with who they can emulate. In my youth, when women came to our school and gave career talks I always thought very seriously about the career perspectives they brought – but we didn't have any scientists present to us, that would have been very inspirational! I think it is great that GITC is providing the opportunity for young women (and other students) to connect with real live working women in the industry. Ultimately, I hope this project will provide more girls with an understanding of the opportunities they have in science and engineering field and recognition (by themselves and others) that they belong in these fields. And hopefully this will lead to more women entering into these careers, which will improve the level of diversity in industry, which would be a great outcome for the program.