



Institute for Community Prosperity

COMMUNITY INVESTMENT PROFILE

Canadian Oil Sands Limited

Solving the equation of early math literacy

Background

Industry: Energy Investment

Company founded: 1995

Headquarters: Calgary

Customer: Business to Business

Legal Type: Public Company (COS)

Owned: Canadian owned

Years dedicated to Community Investment (C.I.): >15

Region of Focus: Calgary (primarily)

Investees/ Partners include:

- Math Minds
- Calgary Homeless Foundation
- Alberta Children’s Hospital Foundation
- Wood’s Homes

Community Investment Strategy:

Canadian Oil Sands Limited (COS) is an investment company which owns 36.74 % interest in the Syncrude project, Canada’s largest producer of crude, synthetic oil from the oil sands.¹ COS invests in the Calgary community because it believes it is important for everyone to benefit from the oil sands. Since it was founded, COS has operated a donations program to help lift up the most vulnerable people in the community. It currently focuses its charitable giving on local non-profit organizations targeting vulnerable Calgarians with a key focus on children’s mental health.

In 2011, COS decided to create a strategic community initiative aligned with its business. Through internal research, the company realized that its employees placed a high value on education. Based on external research, elementary math literacy was identified as a clear space that aligned with COS’ company strengths. There is a strong relationship between math literacy and the oil sands industry; a high level of math proficiency is required to develop new technology and foster innovation to keep the industry and Canada competitive in the global market. However, elementary education is where the critical foundation for a child’s math education and future success starts.

In 2012, COS collaborated with five partner organizations to create Math Minds, an initiative aimed at transforming early math literacy. COS chose their partners carefully, ensuring that all parties were working towards the same goals, had shared values and were comfortable working with the other partners. Together, COS, the University of Calgary’s Werklund School of Education (WSE), JUMP Math, Calgary Catholic School District, The Calgary Public Library and The Boys and Girls Clubs of Calgary co-created a truly innovative project.

CI Dashboard: This dashboard is one way to illustrate how companies invest in community, providing a tool to compare across different company CI profiles. It is important to note that no category is privileged over another.

Geographic scope



CI staff ratio (Presented as percentage of total staff)

$$\frac{1}{30} = 3.33\%$$

Granting or sponsorship approach

Responsive **Strategic**

CI responds to existing or emerging needs and opportunities articulated by the community

CI approach is intentional, driven by the company’s interests and/or theory of change

Flexible **Aligned**

CI is not tied to the company’s core business

CI approach is integrated or in line with the company’s core business

FOCUS Investment: Math Minds

Issue:

Many children struggle with math and give up on the subject because it is not engaging or fun for them. This can have a significant negative impact on their confidence and approach to learning in other subjects as well. Math literacy is foundational to many aspects of life, such as music, art, and personal finances so the lack of math confidence can affect people throughout their lives. Similarly, elementary teachers are not as effective in math instruction if they do not enjoy math or do not deeply understand it themselves. Such factors are contributing to the decline of math scores in Canadian schools.

Solution:

Math Minds was officially launched in November 2012 with the mission to increase elementary student engagement, confidence and achievement in mathematics by deepening teachers' understanding of instruction of mathematics. Since then, the initiative has helped children from Kindergarten to Grade Six improve their math literacy skills. Math Minds provides support inside and outside of classrooms.

The initiative currently operates within schools throughout the Calgary Catholic School District (CCSD). There is a designated observation school to engage teachers from within the CCSD and from other school districts in Math Minds lessons and to illustrate the benefits of the initiative. The observation school is a unique site of mathematics teaching excellence, a centre of rigorous research and a showcase for innovation. It is heavily resourced with the WSE research team and JUMP Math staff to measure the results, co-develop math-related professional development and provide support to the teachers. To expand the program's reach, Math Minds has created opportunities for "pod teachers". To qualify, two or more teachers from the same school must apply and be accepted into Math Minds. The benefits of being a pod teacher include access to additional math professional development, participation in a collaborative network of teachers within Math Minds, provision of JUMP Math teaching and student resources, as well as training, support and direct access to the observation school. There are more than 100 pod teachers for the 2015-2016 school year.

Outside of school, Math Minds provides free afterschool programs as additional support for children to increase their confidence and love of math. The programs are run by trained volunteers through Boys and Girls Clubs of Calgary and The Calgary Public Library. Volunteers use JUMP Math resources to improve student's confidence with math skills.

COS employees are engaged in the Math Minds program in a variety of ways, including participating in math-related activities at the observation school. COS employees also give back to the community once a year for a Day of Caring when all staff volunteer for a day at a charitable organization such as the Calgary Homeless Foundation.

Impact and Evaluation:

Two principal roles of the Werklund School of Education (WSE) are to infuse research-based insights into Math Minds and to explore what teachers need to know to effectively teach elementary math. The WSE plays an important role because Math Minds is constantly evolving and improving based on the continuous research being done at the observation school. The WSE research team is present at the observation school almost daily with the aim to develop and communicate the key principles of effective math teaching and to understand effective teaching and student resources, all of which are critical to the development of highly successful math educators. Other contributions of the research team include offering evidence-based advice for the ongoing refinement of teaching resources and tracking the impact of the initiative. On this latter responsibility, one indicator of Math Minds' success is based on year-over-year measures of students' academic performance. On one of these measures, the Canadian Tests of Basic Skills (CTBS), one group of students saw a 57% improvement in their national ranking.²

Endnotes

1. Canadian Oil Sands, "About Us" para. 1, Canadian Oil Sand Limited, 2010, <http://www.cdnoilsands.com/default.aspx>.
2. Math Minds, "University of Calgary Werklund School of Education Math Minds Research" p. 1, Math Minds, January 2015, <http://www.mathminds.ca/wp-content/uploads/2015/05/Math-Minds-Website-research.pdf>.