

Let's Talk Innovation Mindset!



Let's Talk Science prepares a new generation of innovators **to fuel the future**

At a time when the world faces seemingly intractable problems, innovation is often heralded as the solution. Innovation helps us adapt to change, fosters growth and prosperity, and can make life better. It's a focus of attention and investment for governments and companies seeking to get a competitive advantage. Let's Talk Science, itself an educational innovator for 30 years, is now taking steps to ensure that innovation is part of the mindset of students across Canada.



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What is innovation?

There are dozens of definitions, notes Let's Talk Science President, Dr. Bonnie Schmidt. Ultimately though, it's about discovering and solving problems in creative, responsible, and sustainable ways. Innovation results in new products, technologies, services and processes. "Innovation isn't just about creativity, although that's part of it," she says. "It's about creating something useful that adds value for others."

Many people believe that innovation is the purview of a select few. Not so, says Schmidt. "We believe that everyone has the potential to be an innovator. Innovation starts with a mindset, which is something we can develop with the right types of experiences, coaching, and support."

Innovation involves an iterative process that requires skills in creativity, collaboration and communication. It fosters determination and resilience. "A significant aspect of the innovative mindset is being open to failure," she says. "It's about redefining failure not as a negative but as a way forward." While we often



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think about innovation as the one big invention that transforms life, Schmidt notes that, more often, it is the incremental steps along the way. For example, it's not just the invention of the cell phone, but the small but significant improvements that happen from one new phone model to another.

Let's Talk Science itself was a major innovation when it launched 30 years ago

Beginning as an educational outreach initiative in one university, it has grown into a charitable organization working with more than 55 universities, colleges and institutes, providing programming for children and youth and supporting educators to bring STEM alive in and outside school.

And the organization has never stood still. "We've done things differently and introduced new programs year over year, as we learned and evolved," says Schmidt. "Both incremental and transformative innovation have been at the heart of our organization all along." That includes evolving programs like Tomatosphere, in which students investigate the effects of outer space on seed germination, and developing Clothing4Climate, where they learn about the environmental science behind clothing and then take action to

30 Years of Let's Talk Science

- ✓ Grown into a charitable organization working with more than **55 universities, colleges and institutes**
- ✓ Providing programming for children and youth
- ✓ Supporting educators to bring **STEM** alive in and outside school
- ✓ Evolving programs year over year, like **Tomatosphere and Clothing4Climate**
- ✓ Attracting support from companies such as **Spin Master, Amgen Canada**, as well as the **Government of Canada**





“Acquiring an innovative mindset prepares [youth] to adapt and grow, empowered to lead and navigate change”.

make change. The organization’s talent for innovation has attracted strong support from innovative companies like Spin Master, Amgen Canada, Rio Tinto and many others, as well as the Government of Canada.

Schmidt says that while innovation has always been part of Let’s Talk Science programs – after all, science and innovation are often intertwined – schools are moving away from an emphasis on learning content and focusing more on helping students develop critical competencies and foundational skills that support learning and decision making.

At the same time, youth are deeply concerned about their futures in a rapidly changing world, one where the impacts of climate change and AI are prominent. Acquiring an innovative mindset prepares them to adapt and grow, empowered to lead and navigate change.

Innovation is also seen by governments and industry as the way to succeed in

an increasingly competitive global marketplace. Although a leader in fundamental science and technology research, Canada is sometimes considered lagging when it comes to taking innovations from the ‘lab to the marketplace’. Says Schmidt, “At a moment when innovation is very important and knowing that it involves a set of learnable skills and approaches, the time is right for us to do even more in this area.”

What will the renewed focus on innovation look like at Let’s Talk Science?

Program Manager Alexandra Kasper says existing programs from Early Years to Grade 12 will become more explicit about innovation skills and the development of an innovative mindset. For example, programming will use

Our Renewed Focus on Innovation

- ✓ Programs will become more **explicit about innovation skills** and the development of an innovative mindset
- ✓ Special innovation-themed sessions and hands-on projects
- ✓ **New program will launch** for Grades 7 to 10 students
- ✓ Participants will have the opportunity to learn about careers from role models and companies **based on innovation**
- ✓ Educators will be supported to learn the pedagogy of innovation

meta-cognition techniques to draw attention to each step of the innovation process. Special innovation-themed sessions and hands-on projects will also become part of existing programs. In addition, an entirely new program will launch this fall for Grades 7 to 10 students that will lead to a national Innovation Showcase.

Let's Talk Science participants will also have the opportunity to learn about careers from role models who have built careers and companies based on innovation. Educators will be supported to learn the pedagogy of innovation and how to design learning environments that foster an innovation mindset.

The goal is clear: to increase students' confidence and help them develop as innovators. And that in turn benefits all of us. Says Schmidt, "By focusing on innovation, Let's Talk Science is preparing the next generation of innovators, problem solvers, and engaged members of society."

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