

Introduction to AI

This issue of *Root & STEM* explores how artificial intelligence (AI) is sparking compelling questions, stories, and lessons surrounding machine learning and online safety. Based on research funded by the Ontario Principals Council on AI, this issue is packed with modern, innovative approaches to online safety, particularly when it comes to teaching and learning. You'll find articles and illustrations from artists, educators, and AI experts exploring these topics. From the ways AI technology can support online learning to the ethical issues surrounding privacy to the roles and methods AI is reshaping forever, we take an in-depth look at the new reality that AI is creating and open a discussion around how we can use this technology to create a better—and safer—world.

This issue of *Root & STEM* focuses on three primary aspects of AI: machine learning, neural networks, and natural language. This edition's lesson plans are the perfect gateway to the world of AI for young learners, with unplugged, hands-on activities that transition into exploring digital tools to help learners understand how AI functions and how it processes programs. Learners also get the chance to design their own machine-learning models and neural networks. Let's ensure our students are future-ready, enabling them to harness AI for the betterment of society, rather than being led by it.

Providing Support for Integrating IQ Principles

IQ Principles	Description of IQ and How They Are Connected with the Resource
Aajiqatigiingniq	<p>Consensus Decision-Making, Communication Shared Understanding & Respecting Other Perspectives & Worldviews: The concept of consensus decision-making relies on strong communication skills and a strong belief in shared goals. Developing a student's language and literacy skills gives our communities the skills needed to thrive, collaboration, and an understanding of other views.</p>
Pilimmaksarniq	<p>Concept of Skills and Knowledge Acquisition: Language and literacy is a core fundamental acquisition that is connected to many areas/subjects across lives and learning paths. Learners will acquire and gather knowledge and understanding, then apply it to their lives and beliefs.</p>

learn about language and literacy, they will also be learning the essential vocabulary related to the theme and learning how to build on their own understanding.

In other words, what learners learn in mathematics can be applied to languages, science, social studies, and arts in some capacity. To create a cross-curricular theme, teachers work collaboratively with other subject teachers. One way to do it is to decide on a theme with colleagues and explore learning opportunities that apply to learners' skills and interests. Co-teaching, project-based learning (PBL), and thematic units are all tactics that can support this kind of learning and allow learners to use what they have learned in a comprehensive, real-world manner.