



# PA Day Agenda

**Focus: STEAM (Science, Technology, Engineering, Art, and Math)**

**Date:** Monday, April 08, 2024

**Audience:** All Education Staff

**Location:** Multiple

**Focus:** STEAM (Science, Technology, Engineering, Art, and Math)

## Description:

The Sudbury Catholic District School Board is committed to providing opportunities for innovation and to advance learning for all. As such, the April 8th PA Day will focus on STEAM (Science, Technology, Engineering, Art, and Math), providing a variety of choices to discover new and innovative ways to implement STEAM in our schools.



# Options for Grades 7 – 12 Staff Sessions – April 8th PA DAY

Presenter	Title	Session Description
<p><b>Alex Cardinal, Carpenters Union Local 2486 and Dan Levecque, OYAP Recruiter</b></p> <p><b>Target Audience:</b> Secondary Technology Educators, Guidance and Cooperative Education, Career Studies Teachers</p>	<p>Carpenters Union Local</p>	<p>During this session, educators will learn more about the apprenticeship pathway, how to become a successful apprentice, and opportunities for carpentry apprenticeships across Ontario. Carpenters Union Local 2486 will also facilitate a hands-on learning activity that will go over best practices and safety concerns as the project is completed.</p>
<p><b>Dynamic Earth</b></p> <p><b>Target Audience:</b> Interested grade 7 – 12 educators</p>	<p>Visit and explore programming at Dynamic Earth</p>	<p>Two workshops rotated between Micro:Bit Workshop, Mineral ID Program and an Underground Tour. The day will include a scavenger hunt and exploration of Dynamic Earth.</p>
<p><b>Denis Lepage</b></p> <p><b>Target Audience:</b> Interested grade 7 - 10 educators or Robotics Club Leads</p>	<p>Lego Spike Robots</p>	<p>Educators will embark on a hands-on journey to learn coding with LEGO SPIKE while preparing for a thrilling Sumo-Bot battle. The session kicks off with an introduction to the LEGO SPIKE Prime set and its components, followed by guidance on setting up the SPIKE app on their devices. Participants will gain essential coding skills, including loops, conditions, and sensor integration, through practical exercises. After a brief exploration of coding fundamentals, teachers will dive into the fun part, constructing their Sumo-Bots in small groups, encouraging creativity in design. They will then program their robots to compete in a Sumo-Bot battle, applying coding skills to outsmart their opponents. Finally, teachers will reflect on their experiences and share ideas for integrating coding and robotics into their teaching, leaving the session with newfound skills and inspiration to engage students in STEM education. (Sumo-bot mats have been purchased for each secondary school and will be given to a teacher to bring back to their school).</p>

Presenter	Title	Session Description
<p><b>Bernadette, Maheengun and Noodin Shawanda</b></p> <p><b>Target Audience:</b> Interested grade 7 – 12 educators</p>	<p>Great Lakes Cultural Camp</p>	<p>Life in an Anishinaabe Sugarbush Camp shares land-based learning, community knowledge and cultural practices which align seamlessly with the fundamental concepts and big ideas integral to the science, technology, engineering, and math (STEM) curriculum. This professional development session aims to increase knowledge and understanding of life in an Anishinaabe sugarbush camp and demonstrate how it teaches us about the world around us. We will sample fresh zisbaakaaboo (maple water), practice maple tree identification, share the Anishinaabe history and culture of maple sugaring, learn about food preservation concepts, sugarbush management, our cultural/harvesting responsibilities, and the STEM- based methodology of oral knowledge keeping. This session will engage educators in participatory, experiential learning that builds knowledge and cultivates a foundation for teaching about reciprocity, responsibility and the strong connection between land and students.</p>
<p><b>Shawn Stetson</b></p> <p><b>Target Audience:</b> Interested grade 7 – 12 educators</p>	<p>Adventure Works</p>	<p>Join us for a hands-on workshop focused on enhancing your professional practice through experiential learning and reflection strategies. Designed for educators, this workshop offers a blend of indoor and outdoor activities to expand your toolkit of engaging learning experiences. Through active participation and reflection, you'll develop a collection of personalized techniques to facilitate meaningful learning for your students. The workshop contains a balance of active participation, reflection, and theoretical learning. By the end of the workshop participants will:</p> <ul style="list-style-type: none"> <li>• Understand and apply key concepts of adventure-based and hands-on learning to their own area of professional practice.</li> <li>• Develop a personal “toolbox” of reflection strategies and techniques that can be used to help students transfer learning.</li> <li>• Expand their repertoire of experiential activities.</li> </ul>
<p><b>Mel Young and Cynthia Booth (Cambrian College)</b></p> <p><b>Target Audience:</b> Interested grade 7 - 10 educators or Robotics Club Leads</p>	<p>AI for Teaching and Learning</p>	<p>Fostering Inclusive Assessments in the Age of GenAI" unveils the transformative potential of integrating Generative AI (GenAI) with Universal Design for Learning (UDL) to craft equitable, innovative assessments. This presentation emphasizes the potential of GenAI to ensure assessments cater to diverse needs. Importantly, it highlights the role of GenAI in creating dynamic, authentic assessments that reduce academic dishonesty risks. Attendees will explore strategies for leveraging GenAI to craft assessments that are not only innovative but also deeply inclusive, promoting a collaborative approach to education in the digital age.</p>

# Options for Primary/Junior Staff Sessions – April 8th PA DAY

Presenter	Title	Session Description
<p><b>Bienenstock Team</b></p> <p><b>Target Audience:</b> ECEs, K - 2 Educators</p>	<p>Bienenstock Outdoor Classrooms</p>	<p>This presentation has been planned for primary educators. Understand why and how outdoor learning is critical to child development while supporting your curriculum delivery whether you are inside or out. We will focus on the benefits that only the outdoors can provide; movement, sensory engagement, and opportunities to problem-solve academically, socially, and physically. Learn how to adapt your lessons to include these qualities while supporting all types of learning styles.</p>
<p><b>Jordi Jocko (Spirit North)</b></p> <p><b>Target Audience:</b> Elementary Educational Assistants (EAs), Primary/Junior Educators</p>	<p>Spirit North - Low/Cooperative Org Games</p>	<p>Spirit North's session is all about how to get children and youth engaged in activities that can be brought into the classroom or the school yard. There will be 4 topics that Spirit North will expand on throughout the day: 1. Session Outlines, 2. Learning Activities that can incorporate STEM, 3. Group Dynamics 4. Safety. All activities done throughout the day will be shared with staff to take back and have in their back pocket.</p>
<p><b>Mina Shenouda &amp; Keith Nelson from Logix</b></p> <p><b>Target Audience:</b> Ideal for Gr. 2 - 4 (teacher groups to start coding buddies)</p>	<p>Dash and Dot Robots (from Logix)</p>	<p>In this enriching teacher learning session and professional development program, educators will delve into the world of robotics and coding using Dash and Dot. The session's primary focus will be on equipping teachers with the knowledge and skills needed to effectively teach coding using these friendly robots. Teachers will become proficient in the Blockly programming language, empowering them to instruct students on how to command Dash and Dot to perform various tasks and solve problems. Beyond coding, a unique aspect of this program is the emphasis on creating coding buddies within schools. Teachers will learn how to harness the expertise of older students, turning them into mentors who can guide and teach coding to younger peers. This collaborative approach not only fosters a sense of community within the school but also enhances the learning experience for both mentors and mentees. By the end of the session, teachers will be well-prepared to implement a comprehensive robotics and coding curriculum, fostering creativity, problem-solving, and peer-to-peer teaching within their schools.</p>
<p><b>Blue Coats</b></p> <p><b>Target Audience:</b> Primary/Junior Educators</p>	<p>Come Visit Science North</p>	<p>Four workshops rotated between Micro:bits (Data Base), Micro:bits (Tech Lab), Animal Encounters and Concussion Workshop. The day will include a scavenger hunt with classroom Micro:bits as a prize</p>

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<p><b>Will Morin &amp; Art Gallery of Sudbury Team</b></p> <p><b>Target Audience:</b> Primary/Junior Educators</p>	<p>Outdoor Learning with Will Morin &amp; Art Integration in Elementary Education</p>	<p>Part 1: Half Day Outdoor Learning with Will Morin: This Indigenous inspired interactive session will help demonstrate culturally inclusive approaches to create universal connections through an exchange of best practices, and tools of learning / teaching, in all environments.</p> <p>Part 2: Half Day "Art Integration in Elementary Education" workshop is a dynamic and interactive program designed for elementary teachers seeking to enhance their classroom instruction through the integration of visual arts. This comprehensive half-day workshop covers the fundamental elements and principles of visual arts, explores innovative strategies for integrating art across subjects. Participants will have the opportunity to explore a hands-on project using classroom-friendly art techniques, ensuring a practical and enriching learning experience, and will come away with resources to support visual art integration into curriculum and learning.</p>
<p><b>Maple Hill Farm and Anne Roberge</b></p> <p><b>Target Audience:</b> Primary/Junior Educators</p>	<p>STEM and AI Workshop at Maple Hill Farm: A Hands-on Learning Experience</p>	<p>Join us for a hands-on workshop at Maple Hill Farm that integrates STEM and AI activities with a tour of the maple syrup production process. Designed for educators, this workshop offers innovative learning experiences that are both fun and educational. Participants will learn about AI through a game that simulates cleaning up ocean pollution, train an AI to recognize and sort objects, explore various STEM activities linked to curriculum expectations, and create their own STEM kit to bring back to their classrooms. The workshop includes a guided tour of the maple syrup production process, providing a unique opportunity to see how sap is transformed into maple syrup (tour to include yummy sampling). Don't miss this exciting workshop that combines technology, education, and nature.</p>
<p><b>Shannon Duguay, Stacey Copland, Erika Weber</b></p> <p><b>Target Audience:</b> Primary/Junior Educators</p>	<p>Super Fun STREAM Day</p>	<p>Join us for an exciting and engaging STREAM micro conference. Explore resources for Earth Day and Catholic Education Week in our EduCafe. Enjoy new challenges in our STREAM playground. Choose from sessions such as UFLI-Next Steps, LEXIA revisited, Digitizing Core Phonics Survey, Explicit Instruction in the Junior Classroom, Using BAS from an SoR perspective, and more!!!</p>

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<p><b>Dan Loreto,</b> <b>(Nipissing University</b> <b>Special Education AQ</b> <b>Instructor)</b></p> <p><b>Target Audience:</b> Mandatory for teachers and EAs in Learning Support Centres and Life Skills Classrooms.</p>	<p>Supporting Students with ASD &amp; Developmental Disabilities: Navigating Learning using Bee-Bots</p>	<p>This engaging full day workshop will provide an overview of the basic and new features of the educational robot Bee-Bot to support students with multiple, complex needs specific to ASD and developmental disabilities. Participants will learn how to implement lessons as they relate to functional basic skills, language and math skills using alternative curricula. This will also be an opportunity to review current autism research highlighting best practices to scaffold skill building and for promoting functional integration based on student engagement.</p> <p>The workshop will also introduce various teaching tools and resources that work seamlessly with Bee-Bot, a user-friendly and versatile tool, that provides a unique way to foster essential skills while promoting engagement and fun.</p>

