



CDSBEO EcoSchools – Stewards of the Earth

Ontario EcoSchools is an environmental education and certification program for students in Kindergarten through to grade 12 which helps school communities develop both ecological literacy and environmental practices to become environmentally responsible citizens and reduce the ecological footprint of schools.

Patrick McLeod, Curriculum Consultant with the Board, presented information on the certification process, and what being certified means within the school community.

Participating in the EcoSchools program gives students the opportunity not only to contribute to improving the environment, but also an opportunity to learn about the environment through an integrated curriculum. There are a variety of projects happening within CDSBEO to connect environmental issues with the curriculum. Some examples of activities include planting trees, growing plants, creating school gardens, garbage clean-up, composting, and recycling projects.

“There are many ways that schools show their commitment to the environment,” began McLeod. “The mission of the EcoSchools program is to nurture environmental leaders, reduce the ecological impact of schools, and build environmentally responsible school communities.”

CDSBEO first began to participate in the EcoSchools program in 2009, with six schools earning their certification. For the 2018-2019 school year, all but three CDSBEO schools are certified, and the Board is ranked fifth in the province for certifications, and is the top school board in Eastern Ontario.

The EcoSchools process begins in early September when school educator leads begin establishing their Eco or Green Teams. By the end of November, schools must perform their first audit and submit the results to EcoSchools.

“Many of our Silver, Gold and Platinum schools will have completed multiple audits and established their eco-goals long before this date,” noted McLeod.

Schools are assessed in six different areas for their certification: Teamwork and Leadership, Energy Conservation, Waste Minimization, School Ground Greening, Curriculum, and Environmental Stewardship.

“As this year continues, school teams are continuing to actively engage other students and teachers through posters, schools events, information campaigns and making explicit cross-curricular connections,” continued McLeod.

There are four levels of certification: bronze, silver, gold, and platinum. While freedom is given to create goals and action plans based on the school community, five areas continue to be a



main focus for activities around EcoSchools initiatives. These include: Earth Day, student leadership, monitoring energy use, waste audits and school ground greening.

"The schools are very passionate about the EcoSchools initiative," noted McLeod. "Waste audits are a very important piece, with waste free lunches being a focus. Waste auditing involves weighing the garbage. Composting programs take place at many schools, and are assisted by teachers who take the compost off site. School ground greening is very important and teaches the students through outdoor education areas which include gardens, the installation of bird houses, the planting and maintenance of flowers beds, and larger projects such as greenhouses."

McLeod noted one particular initiative at St. Gregory Catholic School which has installed raised garden beds. Food grown in the garden is donated to the local Carleton Place food bank.

"Being fifth in the province is remarkable," noted Chair Todd Lalonde. "On behalf of the Board of Trustees and the administrative team, we would like to commend you and your team for the great work that is being done in our schools around this initiative."

STEM and Coding Initiatives within CDSBEO

As digital technology continues to play a more significant role in society, as well as the classroom, the CDSBEO is providing students and teachers with STEM and Coding education. Learning to code helps develop analytical thinking and fosters problem-solving techniques – skills that are important for further study in science, technology, engineering and math (STEM) fields and everyday life.

Jameson Lee, Technology Enabled Learning and Teaching Curriculum Consultant, presented information to the Board on STEM and Coding, and how these tools work to enable students to collaborate and think critically, while demonstrating their learning in a variety of contexts.

"STEM has grown to represent a unique approach to teaching and learning, one that centres around individual student learning styles and interests," explained Lee. "This means STEM education has something to offer every student."

Computer programming, or coding, is a part of STEM education.

"Coding is all around us and the results of coding are everywhere. Code is a precise set of instructions a computer can understand. Think of it as a recipe. The instructions need to be precise so whatever you're making turns out the way it should."

Students in CDSBEO schools have been using Micro:bit to learn about coding. Micro:bit is a pocket-sized computer that allows learners to get creative with digital technology. Students can code, customize and control their Micro:bit using computers, iPads, or smart phones.



"The Micro:bit's LED lights can be programmed using code or students can get creative with more advanced features like its buttons, motion detector, compass, and sensors," noted Lee.

Workshops were held in schools to build staff capacity. Teachers, educational assistants, and principals took part in learning about coding, alongside students. Teachers were asked to share their learning with other teachers and students. In some cases, where teachers had two different classes, they planned to replicate the session with their other group of students. Knowing they may need some assistance, the students also took on a leadership and support role, helping their peers to learn about coding.

"Teachers were surprised with the level of student engagement, and noted that even students that struggle academically and socially were happy and working with their peers," explained Lee.

"After a few workshops I noticed student reactions when they saw their Micro:bit creations come to life for the first time. It was an incredible, authentic reaction and I cannot recall any type of activity that evoked such a consistently positive response."

"STEM and coding is an area that can be life changing for our students. Along their educational journey, we want to help students find their passion that will lead to successful, healthy, happy adults. STEM and coding fields in the workforce are jobs that are currently in demand and we hope these opportunities will help to spark a passion for this career pathway," concluded Lee.

Chair Lalonde thanked Jameson Lee for his presentation, "It's always great to see how our educators embrace new learning, and how they help to inspire our students with new and exciting initiatives."