

Item #: 13.a

	Administrative Council	Program and School Services Advisory Committee	
REPORT TO:	Policy Working CommitteeBoard	 Planning and Priorities Advisory Committee Other: 	
TITLE OF REPORT:	Environmental Education and Management Committee Annual Report		
PRESENTED BY:	Environmental Education	ent of Student Achievement Supervisor, Math, Science and Technology, nator, Environmental Education and Management	
PRESENTED FOR:	□ Approval	☐ Information ☐ Advice	
Recommendation(s):			
Purpose:	Education and Management Com		
Content:	(EEMC) It is the policy of the Board to be a sustainability. In order to achieve to positively affect the environmer of the Environmental Education at The EEMC committee meets quar review current practices; identify f make recommendations to senior 2018-2019 EEMC membership in Amanda Delaney -Secretarial sup Chris Yeo -Manager Facility Servic Craig Smith -ETFO Dan Arppe -PSSP-Environmental E Erin Mutch -Learning Coordinator E Esther Wendel-Caraher -OPC Ele Jeff Beynon -OPC Secondary Jennifer Eckert -CUPE 7575 Jennifer Nuyens -TVCHSA represe 2. Embedding Environmental E According to the Ministry documer <i>Environmental Education in Ontar</i> leadership, model and teach envir and skill development to foster en acquire knowledge, skills, and per connections to each other, to the Tomorrow, p. 11). In designing learning opportunities the key themes from Achieving E2 Paper (2016) for Community Cont	terly throughout the year to review legislative requirements; uture innovative programs; coordinate Ministry directives; and administration and the trustees. cludes: bort Lori Ann Pizzolato -Trustee Melissa Mould -LC Materials Mgt & Instructional Safety Randy Cousins -CUPE A ducator Richard Hoffman -Public Affairs Coordinator nviro Ed. Sheila Builder -Superintendent of Student Achievement mentary Scott Armstrong -Learning Supervisor Shawn Muscutt -Safety Specialist, Human Resources Tom Walker -Project Supervisor, Facility Services	

outside school that are compelling and contribute to their success"; to foster student engagement and achievement by "creating more relevant, applied and innovative learning experiences that spark students' curiosity and inspire them to follow their passions" (p. 4).

a. Environmental Education Centres

Our Environmental Educator team expanded in 2018 to six environmental educators, two for each of London (Pond Mills and Wellington Road), Jaffa and Vansittart Woods Environmental Education Centres. The daily operations of our three centres is heavily supported by our secretarial assistant. Demand for our Environmental Education Centre programs continues to exceed our capacity for all three locations. Program requests for September to June of this year represent 85% of TVDSB schools accessing our centres. This year we have implemented an Experiential Learning resource for teachers to use before and after their trip to our centres with the goal of supporting more of an extended learning experience. Each centre provides unique, curriculum-linked programs designed to increase student and teacher connections to their local environment in an interactive, natural, hands-on, and authentic way. We continue to use our electronic request system to ensure equity of opportunity as well as to improve accessibility for our popular programs. In 2018, Pond Mills Environmental Education Centre underwent a renovation to improve accessibility and efficiency including new entrance, washroom and windows. Window replacement is scheduled for Vansittart Woods this coming summer.

Innovative & Responsive Programming:

This year, our London Environmental Education Centre is the host site for our new grade 10 Environmental Leadership program out of our Wellington Road location. Tied to Laurier SS, the class is developing programming for grade 5 classes to visit the centre and take part in some cross-panel outdoor and experiential learning with support from our Environmental Educators.

Our centres are visited by classroom teachers for our regular programs as well as a variety of specialized opportunities where we develop programming for unique needs such as our newcomer LEARN classes, SWAC, our FNMI portfolio, and our visiting International students. We have continued to utilize our centres during the summer months for Summer Learning Conference for teachers and also for trips by our Summer Numeracy, English Language Learners Summer School, and FNMI summer school.

With the goal of enhancing teacher capacity for interdisciplinary programming, we continue to offer teachers the opportunity to apply for five consecutive days of 'Nature School' where their class visits one of our Environmental Education centres and integrates their curriculum using the natural environment as the context for learning. The five teachers collaborate with our Learning Coordinator and Environmental Educator for one day of planning prior to their week at our centres. Teachers have identified the impact on their practice in terms of how they look at curriculum integration, how they offer students the opportunity to think critically, and collaborate on authentic opportunities to contribute to their community, and the various ways in which technology can be used for students to document their learning. We have found that teachers use this one week opportunity and expand the learning throughout the school year with a variety of extensions upon their experience.

Strong Partnerships, Leadership Development & Professional Learning:

Our Learning Coordinator and all three centres host teacher-candidates from Althouse College, and various other local universities for their Alternative Field Experience, or through virtual mentorship. Additionally, our centres host secondary co-op student placements for half days for a full semester and our Vansittart Woods Centre coordinates a grade 8 Leadership program for 2 student leaders from each Oxford County Public School.

We continue to maintain strong community partnerships with our adjacent landowners and conservation authorities who assist in trail maintenance and small construction projects, along with some of our Secondary Green Industries courses.

b. Grade 10 Environmental Leadership Program

We are very excited to be offering our new grade 10 multi-credit environmental program through our London Environmental Education Centre. Our current cohort is a mix of students who are currently benefitting from re-engagement with secondary school, and students who are enjoying enriching extension opportunities. Student are working towards credits in grade 10 English, Civics, Careers, Physical Education, and a grade 11 credit in Interdisciplinary Studies.

The transformative learning approach involves understanding, caring about, and taking action on a particular issue. Our projects will all directly impact the local community in which students live.
We're excited for students to have the opportunity to put the 'active' into active citizenship. This
course is designed for grade 10 students in semester 2. Applications are accepted from current grade 9 students from any TVDSB school. We are very interested in selecting students who
represent the diversity that makes Thames Valley a wonderful place to learn from one another, and
to empower them with engaging experiential learning opportunities. We believe that grade ten students are capable and competent critical thinkers who can contribute to their community.
Secondly, we believe that there's a lot to learn from interacting with the local landscape. This class has immediate access to nature; immediately out of their portable door is a 200 hectare
Environmentally Significant Area, located conveniently in the heart of London.

Student leaders are enjoying the opportunity to learn from passionate professionals and developing outdoor learning opportunities for younger students who visit their site. In their first few weeks, student welcomed a class of English Language Learners, as well as four grade 5 classes. These days have been full of confidence-building, resilience-fostering, and smile-generating opportunities for the older and younger students alike. Examples of student work, and the program overview is available at: https://sites.google.com/gotvdsb.ca/help/

c. Environmental Literacy and Outdoor Learning representatives

In order for the Thames Valley District School Board to be an active leader and corporate model for environmental sustainability, we recognize that this requires an investment of time, energy and resources. The goals of the Thames Valley District School Board's Environmental Education and Management Policy include creating conditions to empower students and staff to positively affect the environment and community in which their school is located. In order to do so, we are committed to supporting the environmental literacy of staff and students through the work of our Environmental Education and Management portfolio. This role will ideally build leadership capacity in teachers that do not necessarily have a leadership role in their school.

Last June, we sought one educator from each school to serve as a representative for their school to learn about, and share information with their school community regarding: opportunities available at our TVDSB Environmental Education Centres, TVDSB's Outdoor Education Funding opportunities, regional opportunities for community-connected experiential learning from local Conservation Authorities, School Ground Greening projects, and Ontario EcoSchools certification. Our team of Environmental Educators also supported some professional learning related to embedding Environmental Education into the curriculum.

Educators will help embed responsible citizenship, systems thinking, critical literacy, and the ability to communicate ideas in meaningful ways into the broader culture of developing student leadership. Educators will also help promote outdoor learning which not only offers a unique context for learning, but also provides experiential opportunities to foster a connection to local places and to develop a greater understanding of complex local and global systems.

d. Wilderness-based Interdisciplinary Leadership Development (W.I.L.D.)

Development of our wilderness-based interdisciplinary leadership development course (W.I.L.D.) for secondary students aligns the work of the Environmental Education Portfolio with data gathered from the Rethink Secondary Learning report. Students across TVDSB are invited to apply and a representation of our student community has been intentionally sought when selecting 18 applicants. Students learn through a blend of in-class learning beyond their regular school schedule; online learning where they could both work individually, as well as connect to build community and collaborate on planning tasks in Google Classroom; and outdoor learning where the students apply the course theories of leadership and planning in an authentic and experiential manner on a nine day canoe trip in Quetico Provincial Park.

Our partnerships with Growing Chefs and London Canoe Club help to prepare students and provide critical thinking and authentic planning opportunities. The Voyageur Wildness Programme provides the services of an additional wilderness guide for our trip. Students are given opportunities to plan all aspects of the trip, lead their group for a day, deliver their own lesson, and learn from one another in their diverse group.

Feedback from parents and students alike have focussed on the personal growth that a wilderness setting can provide, the richness of learning in a diverse group, and the experience of being completely disconnected from technology for seven days. Examples of student work is available at: https://sites.google.com/gotvdsb.ca/wild

e. Ontario EcoSchools

Ontario EcoSchools is an environmental education program for grades K-12 that nurtures environmental leaders, reduces the ecological impact of schools, and builds environmentally responsible school communities. The EcoSchools program also helps to promote, recognize, and encourage student and educator leadership and aligns with the promotion of Ministry and TVDSB targets in relation to waste minimization, energy conservation, school ground greening, and environmental stewardship.

Erin Mutch, Learning Coordinator, represents Thames Valley and Southwestern Ontario on the Ontario EcoSchools Steering Committee. Within Thames Valley, she assists schools with curriculum linking, application, and implementation for recognition and certification.

EcoSchools certification activities are empowering to students and allow schools to show evidence of student voice and student leadership. Schools are recognized for their commitment to environmental sustainability by acquiring certification points in six categories: curriculum connections; leadership; stewardship; waste minimization; conservation of energy; and school ground greening. Promoting the symbolic nature of being an EcoSchool in school discussions regarding waste management practices can lend focus to enhancement of school culture. We currently have 47 TVDSB schools working towards certification, our highest number thus far.

f. Outdoor Education Funding

The purpose of this targeted funding from the Ministry is to support experiential outdoor learning activities. "Learning in the outdoors not only offers a unique context for learning but also provides experiential learning outside the classroom to foster a connection to local places and to develop a greater understanding of ecosystems. Natural and human-built environments can be used as sites for discovery, problem-solving, and active learning, as well as for first-hand experiences that put students in touch with nature" (Ministry of Education, Environmental Education (K-8) Scope & Sequence 2017, page 5).

During the 2017-2018 school year, 67,117 student learning experiences occurred where students benefited from being able to participate in field trips at no cost. To date this year, we have reviewed over 800 applications for funding. Our secretarial support works tirelessly with teachers, school secretaries, Purchasing, and Finance to support these experiences for our students.

The Ministry funding allows us to support and promote the engagement and well-being of all students through the myriad opportunities for building relationships with community partners. Our community, including our Conservation Authorities and the London Children's Museum, allow us to build capacity in our educators as well by embedding professional learning into the student experiences.

3. Environmental Stewardship and Community Connected Learning:

The Community Connected and Experiential Learning Policy Framework suggests the enhanced role of such opportunities offers all students a broader range of choices of learning environments connected to a variety of communities; emphasizes student-directed/co-constructed learning opportunities; places increased emphasis on an inquiry approach; differentiates experiences to meet students' particular learning needs and strengths; and recognizes and supports planned and incidental learning through student-directed experiences in the local, national, or global community (Winter, 2016).

a. Landscapes on the Lake

Our Arts and Environmental Education Learning Coordinators partnered with Kettle Creek Conservation Authority, two local artists, and one student-photographer to plan a day where Arts students were immersed in the culture, geography, ecology, and history of Lake Erie.

Arts students from Central Elgin, Parkside, and Arthur Voaden Secondary Schools were given macro-lenses and Canon cameras and were invited to look closely, as well as to step back, to capture the local landscape. We asked students to consider their collaborative impact in both environmental stewardship and the creation of art. Furthermore, we asked students to consider which elements of a particular place are important to tell its story. Their work is displayed in the third floor hallway of the Education Centre.

Staff from Kettle Creek CA and our Learning Coordinator for Environmental Education was invited by the Ministry of Environment and Climate Change to present this initiative in a presentation at the Latornell Conservation Ontario Conference as an example of the art of collaborative design between Education and Conservation sectors.

b. Elgin E.C.O. Class

Four classes in Elgin County have expressed interest in being part of an Environmental Collaborative Opportunity. This year, the curriculum for these grade 7 and 8 classes will be addressed using a variety of strategies including real-world experiential learning, student-led inquiry and place-based learning where the local landscape creates the context for the learning. The four teachers who teach these classes collaborate to create engaging, interactive, hands-on, real-life learning opportunities that will meet both the curriculum expectations and the individual learning needs of each student.

Students in all four schools will have the opportunity to explore a wide variety of curriculum outcomes through their learning in a school garden, and connecting with community partners through on and off site visits at least once per month to learn alongside local experts (examples include Jaffa Environmental Education Centre, Kettle Creek Conservation Authority, Bird Studies Canada). Students will foster their leadership skills in both the school and in their community and will have the opportunity to initiate solutions to complex environmental issues.

c. Supportive Funding from Community Partners

Our local Conservation Authorities and environmental organizations continue to enhance our capacity to offer students meaningful stewardship opportunities. The Kettle Creek Conservation Authority's Environmental Youth Corps, developed in the summer of 2018, provides a group of Elgin County students the opportunity to execute stewardship projects throughout the region. The Middlesex, Elgin and London chapters of the Healthy Kids Community Challenge have collectively funded water bottle filling stations, school gardens, and outdoor learning spaces for our schools in these areas. ReForest London continues to support the installation of shade trees in London and Middlesex school yards through their comprehensive Seeds to Forest program. The City of London's Neighbourhood Decision Making has provided three school communities a collaborative problem-solving opportunity where students could submit proposals to request funding for community development and improvement projects in their neighbourhoods. This participatory budgeting initiative allowed school communities to support local projects in school yards.

Our Grade 10 Environmental Leadership program will be completing a series of stewardship projects in the Westminster Ponds with the expertise of Upper Thames River Conservation Authority and the Western Ontario Fish and Game Preservation Association. Students will also support the restoration and transformation of Hodge's Pond in Oxford County into a site for community outdoor recreation.

d. Outdoor, Experiential and Environmental Education Festivals

In partnership with our local conservation authorities, our Learning Coordinator sits on the steering committees for programming and linking curriculum for the Carolinian Forest Festival (2,000 students) and the Children's Water Festival (2,750 students). The Children's Water Festival will take place at Fanshawe Conservation Area in May of 2019.

Our Environmental Educators support, and co-facilitate these annual festivals. Our Environmental Educators from Jaffa, along with the leadership of the ELP program at East Elgin run the grade 4 Marshquest, and Carolinian Forest Festival. They also run our annual collaborative Maple Syrup program in conjunction with Catfish Creek CA. Our London Environmental Educators run an interactive station at the Children's Water Festival in partnership with Upper Thames River CA. The festivals provide our secondary students with leadership opportunities as they act as environmental educators for the day with their own station.

4. School Ground Greening/Outdoor Learning Environments

The implementation of outdoor learning spaces has been an opportunity for creative collaboration amongst our educators, parent councils and community organizations. Over the past 4 years, over 100 schools have brought their visions of outdoor learning spaces to fruition.

By intentionally designing our outdoor spaces for learning, we offer students an opportunity to directly engage with nature as well as to develop their observation skills by providing opportunities to look closely, to wonder, and then to examine and investigate.
 School communities, with support from School Councils, TD Friends of the Environment, ReForest London, Conservation Authorities, City of London, Healthy Kids Community Challenge, and local organizations have chosen to implement some of the following types of outdoor learning spaces: Outdoor classrooms as a place to begin an investigation, or for oral presentations; Planter boxes or gardens for scientific inquiry, and to foster a personal connection to healthy food; Natural climbing structures for gross motor development; Improved biodiversity to create a welcoming habitat for birds or pollinators; Artistic spaces for dramatic, musical and creative productions; A calming space for students, young and old.
The planning, fundraising, construction, and maintenance require a commitment of time and energy by the lead staff and their supportive school community. The Environmental Education and Management Learning Coordinator acts as the liaison between school and Board departments, and maintains strong relationships with our involved community.
5. Waste Minimization, Conservation of Energy, and Student Learning
Promotion of waste minimization and energy conservation offers an opportunity to promote environmental responsibility and create conditions to cultivate caring citizens. Waste Management Guidelines exist in order to streamline the process of recycling, garbage disposal, composting, and hazardous waste removal. We now have 100% of our schools on a single-streamed recycling system. This allows all recyclables to be gathered in one classroom container, and to be collected nightly by the custodian. Successful change in practices requires ongoing communication of the guidelines to all employee groups and students, answering of clarifying questions, and coordination of efforts and celebration of successes. Supporting documents that have been created include an updated website, Waste Management Guidelines, posters, and a video.
School-wide waste and energy audits are being conducted as an in-class STEM inquiry using their school data as an authentic case study. Students share their own observations and predictions prior to the inquiry and create explanations and next-steps based on the results. Significant differences exist between EcoSchools and non-EcoSchools which was seen in a provincial study, as well as at our board-level. Our intent is to replicate the responsible citizenship learning opportunities regarding waste minimization as we work towards behaviour change in terms of conservation of energy at the system-level.
NEXT STEPS
 Environmental Education Build on the implementation year of the multi-credit program and the strong partnerships that exist with community (run out of our London Environmental Education Centre). Continuation of our new wilderness-based interdisciplinary leadership development course (WILD as an opportunity to align the work of the Environmental Education Portfolio with data gathered from the Rethink Secondary Learning report. Expansion from five weeks of the Nature School model where educators co-design a week-long program at one of the Environmental Education Centres for a week of interdisciplinary learning. Further align the programming and extension opportunities of our TVDSB Environmental Education Centres with the system initiatives of waste minimization and conservation of energy.
 2. Ontario EcoSchools Continue to promote the use of Ontario EcoSchools as a framework and celebration of the work of a school's EcoTeam in order to foster environmental responsibility and stewardship, and appropriate use of the board's resources.
 Environmental Stewardship Linked with Curriculum Maintain strong relationships with our collaborating organizations such as local Conservation Authorities, ReForest London and municipalities, as these organizations allow us to expand our capacity for stewardship and learning opportunities, as well as offer capacity building opportunities for our educators.

We build each student's tomorrow, every day

	Continue to build opportunities for authentic stewardship and real-world inquiries with community collaborators.	
	4. School Ground Greening	
	 Continue to support administrator teams as they work with parent groups to develop outdoor learning spaces. 	
	 Continue to maintain strong relationships with our potential project donors and supporters and seek funding opportunities to support our school in need in order to work towards equity for our students. 	
	5. Waste Minimization & Energy Conservation	
	 Develop and implement a Communications plan to share system-level messaging, 	
	 expectations and stories of sustainable practices with schools and our community. Continue to run curriculum linked waste audits as a data-management and active- citizenship learning opportunity for students. 	
	 Build similar energy conservation resources available to schools to effect change in their buildings using their school as a case study for STEM inquiry. 	
Cost/Savings:	N/A	
Timeline:	November 2017 – March 2019	
Communications:	Admin Council – March 18, 2019	
	Board of Trustees – March 26, 2019	
Appendices:	Appendix A: EEMC Report Slides	

Strategic Priority Area(s):

Relationships:	 Students, families and staff are welcomed, respected and valued as partners. Promote and build connections to foster mutually respectful communication among students, families, staff and the broader community. Create opportunities for collaboration and partnerships.
Equity and Diversity:	 Create opportunities for equitable access to programs and services for students. Students and all partners feel heard, valued and supported. Programs and services embrace the culture and diversity of students and all partners.
Achievement and Well- Being:	 More students demonstrate growth and achieve student learning outcomes with a specific focus on numeracy and literacy. Staff will demonstrate excellence in instructional practices. Enhance the safety and well-being of students and staff.

Form Revised October 2018

2018 EEMC ANNUAL REPORT

2018-19 EEMC MEMBERSHIP INCLUDES:

Amanda Delaney - Secretarial support Chris Yeo- Manager Facility Services Craig Smith - ETFO Dan Arppe - PSSP-Enviro. Educator Erin Mutch - Learning Coordinator Enviro Ed. Esther Wendel-Caraher - OPC Elementary Jeff Beynon - OPC Secondary Jennifer Eckert - CUPE 7575 Jennifer Nuyens-TVCHSA representative

Lori Ann Pizzolato - Trustee Melissa Mould – LC Materials Mgt & Instructional Safety **Randy Cousins - CUPE A Richard Hoffman - Public Affairs Coordinator** Sheila Builder - Supt. of Student Achievement Scott Armstrong - Learning Supervisor Shawn Muscutt - Safety Specialist, Human Res. Tom Walker- Project Supervisor, Facility Services

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Environmental Education Centres

National

Participate

Student

Reflect

Nocal .

Apply

Onsite Blended



FACILITY AND PROGRAM UPDATES AT POND MILLS ENVIRONMENTAL ED CENTRE



CROSS-PANEL, COMMUNITY-CONNECTED EXPERIENTIAL LEARNING AT VANSITTART WOODS THROUGH OUR NATURE SCHOOL OPPORTUNITY





GRADE 10 ENVIRONMENTAL LEADERSHIP PROGRAM







WE BUILD POSITIVE RELATIONSHIPS WITH ALL MEMBERS OF OUR EDUCATION COMMUNITY TO FOSTER AN ENGAGED AND INCLUSIVE BOARD CULTURE



WE PROVIDE AN EQUITABLE AND INCLUSIVE ENVIRONMENT THAT CHAMPIONS LEARNING OPPORTUNITIES FOR ALL



NE ENGAGE IN INNOVATIVE LEARNING EXPERIENCES THAT PROMOTE EXCELLENCE IN STUDENT ACHIEVEMENT AND WELL-BEING



ENVIRONMENTAL LITERACY + OUTDOOR LEARNING REPRESENTATIVES

Professional Learning opportunity for educators to create innovative learning experiences to support student achievement and well-being.





Regional sessions were held at our three Environmental Education Centres.









Grade 11 credit in Wilderness-based Interdisciplinary Leadership Development.

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"In a school classroom, we deal with stereotypes, cliques, and social pressures that limit how we can communicate and collaborate as a group. Once we were in the canoes, none of these seemed to matter, which, for me, begged the question of how much I've misread the people in my life thus far.....this trip gave me the opportunity to learn that I am often too quick to read people – that the amiability, humour, charm, and relatability found in others can be so surprising to a closed-mind."



LANDSCAPES ON THE LAKES

1







LANDSCAPES ON THE LAKES





SCHOOL GROUND GREENING

































ELGIN E.C.O. CLASSES

Edyta Centeno @MmeCenteno - Feb 9

Wonderful visit to @STEPACDOTCA to see Ron Milton's paintings & sculptures -"Migration: So you want to be a bird" exhibit. Thank you for inspiring our students! We thoroughly enjoyed hearing his stories & getting to ask about his art & career. What a pleasure! #ElginECOclass



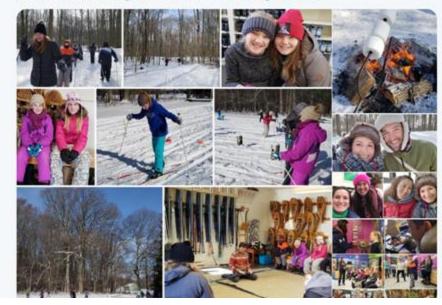
Edyta Centeno @MmeCenteno · Jan 17

Planning out a class newspaper/yearbook/photo essay project. Looking at meeting curriculum expectations for Media & English Writing and hoping it be a nice year end keepsake, as well as, get students to explore blogging. #ElginECOclass @SummersCorners @HSolway





Edyta Centeno @MmeCenteno - Jan 30 Field trips out to @JaffaEEC are THE BEST (& my favourite)! Today was awesome! We had a modified day due to the cold and spent only short spans of time outdoors , well bundled. Big thanks to @danarppe & Shannon & Canadian winter weather #ElginECOclass #BellLetsTalk #getoutside











WASTE MINIMIZATION

In-class inquiry to link data-management, critical thinking skills, and communication planning, while offering a stewardship opportunity.

MULTI-DEPARTMENTAL WORK: CONSERVATION OF ENERGY.

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- FACILITY SERVICES
- ENVIRONMENTAL EDUCATION
- COMMUNICATIONS
- PURCHASING
- INFORMATION
 TECHNOLOGY



