
ENVIRONMENTAL SUSTAINABILITY AND EDUCATION

1) PURPOSE

Hastings and Prince Edward District School Board (HPEDSB) is committed to preparing students with the knowledge, skills, perspectives, and practices they need to be environmentally responsible citizens by delivering effective environmental education and modeling environmentally responsible practices. The System Strategic Plan 2015-2020 highlights the priority of ensuring effective management of all resources (i.e. human, financial, environmental).

2) GENERAL

- a) Staff and students understand and demonstrate a commitment to the core values of the organization: caring, cooperation, honesty, humour, integrity, respect, responsibility, trustworthiness.
- b) The responsibilities of local and global citizenship and environmental stewardship rest on the foundation of good character.
- c) Environmental education contributes to increased academic achievement for all students, with a focus on the development of global competencies as citizens that make a difference locally, nationally and globally.
- d) When students are engaged in their learning and social environment, they are better able to develop the skills and knowledge and grasp opportunities that can help them reach their full potential, pursue lifelong learning, and contribute to a prosperous, cohesive society. (Ontario Ministry of Education, *Reach Every Student: Energizing Ontario Education 2008*, p.12).
- e) Employing environmental stewardship is of paramount importance to students, staff and all persons using HPEDSB facilities. Through environmentally responsible practices such as energy conservation, waste diversion, greenhouse gas reduction, and green procurement strategies, all staff and students contribute to environmental sustainability.

3) DEFINITIONS

- a) **Environmental education** is defined as education about the environment, for the environment, and in an environment that promotes an understanding of, rich and active experience in, and an appreciation for the dynamic interactions of:
 - i) the earth's physical and biological systems;
 - ii) the dependency of our social and economic systems on these natural systems;
 - iii) the scientific and human dimension of environmental issues; and
 - iv) the positive and negative consequences, both intended and unintended, of the interactions.
- b) **Environmental literacy** is a philosophy and methodology in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills and clarify values, as follows:
 - i) Provides students with the knowledge and perspectives required to understand public issues and place them in a meaningful environmental context.
 - ii) Requires a mix of knowledge, vocabulary, key concepts, history and philosophy.
 - iii) Embraces education for sustainability.

- iv) Focuses on ensuring awareness and understanding of the ways in which humans use and effect ecosystems presently and in the future.
 - v) Involves experiential learning in the community to foster a connection to local places, develop a greater understanding of ecosystems and the interaction with all living things.
- c) **Experiential education** is a philosophy and methodology in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills and clarify values.

4) EDUCATION

a) Teaching and learning

- i) Globally minded learners and leaders in HPEDSB develop global competencies and see themselves as connected citizens making a difference locally, nationally and globally (<http://www.hpedsb.on.ca/wp-content/uploads/globallyminded/GloballyMindedLearnersLeaders4pagedoc.pdf>)
- ii) Embed environmental education expectations and opportunities in all grades and across subjects of *The Ontario Curriculum* through an integrated, cross-curricular approach.
- iii) Support teachers in accessing professional learning materials related to environmental education.
- iv) Foster collaborative opportunities for all employee groups and students to develop and share activities, integrated approaches, and action research projects related to environmental education.

b) Student engagement and community connections

- i) Support student, parent, community and educator partnerships in developing classroom, school and community environmental actions.
- ii) Encourage all students to actively participate in sustainable environmental practices and decision-making within the school and community.

c) Environmental leadership

- i) Encourage schools to facilitate sharing of staff expertise and knowledge through existing networks.
- ii) Integrate in-service opportunities related to environmental education, into staff development for all employee groups, in order to increase the capacity of staff to implement evident-based environmental education programing, practices and operations.
- iii) Staff and students model, promote and implement environmental sustainability (ie: litter less lunches, use of reusable water bottles, recycling, LOCO – Lights Off, Computers Off, purchasing sustainable products etc.)
- iv) Follow best practices for energy conservation.
- v) Establish green teams in schools, using existing networks and proven strategies and programming (e.g., EcoShools, Natural Curiosity, Outdoor Education)

d) Energy conservation leadership

- i) Promote efficient operation of lighting, equipment and heating, ventilation, and air conditioning systems (HVAC).
- ii) Shut off lights when classrooms and other spaces are not occupied.
- iii) Operate HVAC systems to maintain comfortable conditions within occupied spaces.
- iv) Shut off unnecessary HVAC systems during low occupancy or unoccupied periods such as evenings, weekends and school breaks.
- v) Reduce water consumption by installing water efficient appliances, where practical, and using best practices such as shutting off faucets are after use.
- vi) Monitor water system for leaks, proper toilet operation and maintain waterless urinals.

e) **Environment resources procurement and practices**

- i) Purchase materials that have the least impact on the environment while maintaining product quality standards.
- ii) Review various operational materials and practices on a regular basis to ensure minimal impact to the environment is achieved, while also maintaining an acceptable level of efficiency and effectiveness. (i.e. green clean products and various custodial cleaning chemicals)

5) PROVISIONS

a) **Energy management**

HPEDSB is committed to energy conservation and greenhouse gas reduction. Employees and students will practice energy conservation through conscientious habits that minimize energy waste.

In order to most effectively support energy conservation, HPEDSB will:

- i) Respond yearly to the *Green Energy Act* and Ontario Regulation 397/11 ensuring conservation target is either met or exceeded.
- ii) Create an energy policy that will support Ontario's Long-Term Energy Plan and work towards a goal of greenhouse gas reduction through energy conservation, recognizing that the local effect of reducing the Board's carbon footprint plays a role in the global biosphere.
- iii) Shut down equipment, lighting, heat systems, cooling systems when not required.
- iv) Moderate and create standard operational limits for light, heat and cooling systems based on season and occupancy.

b) **Waste Management**

HPEDSB is committed to ethical recycling and responsible reduction of landfill waste. Employees and students will practice environmental sustainability through reduced production of waste through conscientious working habits, recycling and/or reuse.

In order to most effectively support waste reduction, HPEDSB will be guided by the following principles:

- i) Promote and practice waste minimization and recycling.
- ii) Comply with Ontario's waste regulations (O Reg 347, O Reg 102/94, O Reg 103/94).
- iii) Encourage the purchase of recycled materials and those which are suitable for disposal by recycling.
- iv) Favour suppliers with sound environmental principles and positive recycling and waste management practices.
- v) Minimize waste by encouraging the exchange and reuse of equipment and materials amongst departments.
- vi) Encourage schools to develop a 'take your organics home to compost' campaign.
- vii) Are innovative and open-minded to new opportunities to enhance our waste diversion efforts.

c) **Recycling of non-electronic, non-hazardous material**

Everyone is responsible for recycling practices. The expectation is that principals and managers will ensure that classrooms and common areas are equipped with recycling bins and emptied into the schools blue carts when appropriate.

Understandably, the actual work detail of each building's recycling collection may be different, but it is important that everyone realize that a few key details will ensure a successful program. The details include:

- i) Empty all food and drink containers before placing them in a recycling container
- ii) Ensure every classroom has a recycling container
- iii) Make sure every staff member, parent and student is aware of the school recycling system through newsletters and announcements
- iv) Read and follow the signs to ensure correct source separation
- v) Keep paper recyclables dry, or they will be considered garbage

d) Recycling How – to's

- i) Collect recycling into two streams: paper and “plastics and cans”
- ii) Empty class bins at least weekly from classrooms and place into large blue carts (note that this is a classroom function, not custodial)
- iii) Paper must be kept separate from everything else to ensure it is not contaminated by wet recycling
- iv) Carts must be put outside by 7 a.m. on scheduled recycling pick up days (note that this is a custodial function)
- v) If all your carts are full, clear plastic bags may be used for the excess

e) Corrugated Cardboard

- i) All cardboard must be broken down according to the signage
- ii) Place corrugated cardboard into bulk cardboard container, or beside if too big to fit in the container

f) Composting in schools

Composting of organic materials is encouraged at the school level. Schools looking to begin a composting program must ensure that:

- i) A designated individual in the school, with knowledge of composting practices is assigned the role of maintaining the compost bin each year. The Energy and Environmental Technologist can assist schools in providing some how-to literature and hands-on training.
- ii) The school must have the funds to purchase their own on-site composter.
- iii) Schools must ensure the compost bin is placed in a strategic location taking into account any health hazards that could arise from maintaining a compost program (ie. Bees, maggots)
- iv) Schools cannot partake in the green bin program as administered by local municipalities. As waste diversion practices within the region progress, the Board may look at opportunities to work with municipalities to develop a school green bin program.

g) Recycling of electronic materials and batteries**i) Batteries**

- (1) Do not put in regular garbage.
- (2) Store spent batteries in bucket, ensuring that terminals have been taped.
- (3) Send bucket back with board courier once full to ensure proper recycling.

ii) E-waste (includes computers, hardware, wires, telephones, ink cartridges etc.)

- (1) Do not put into regular garbage.
- (2) Store in designated area for pick up by board courier (small quantities <10) or for larger pickups contact IT services.
- (3) Confidential shredding – hard drives and discs/CD's

h) Hazardous waste disposal (not including “sharps”)

- i) Hazardous waste includes, but is not limited to, the following substances:
 - (1) toxic agents,
 - (2) flammable material,
 - (3) oils and other petroleum products,
 - (4) corrosive substances,
 - (5) explosives,
 - (6) oxidizers and organic peroxides,
 - (7) compressed gases,
 - (8) pesticides and herbicides,
 - (9) pyrophoric materials,
 - (10) biohazardous agents, and
 - (11) radioactive materials.

Note: Only hazardous waste generated by the HEPDSB shall be accepted for disposal. HPEDSB is not authorized to accept waste from other sources.

- ii) Hazardous liquid chemical waste shall not be disposed of via sanitary drains or storm sewers. Solid or liquid hazardous waste shall not be combined with regular garbage.
- iii) **The Energy and Environmental Technologist is responsible for:**
 - (1) Co-ordination of the disposal, manifesting, and payment of fees associated with hazardous materials and all applicable regulations.
 - (2) Scheduling of hazardous waste pickups by a qualified contractor every 90 days as per the Ontario Regulation 347. Pickups outside these times will be scheduled on an as needed basis.
- iv) **The school is responsible for:**
 - (1) Ensuring that teaching staff working with hazardous materials have training on the use, storage and transportation of such materials.
 - (2) Storage of materials awaiting removal in a securely closed container, which is well labelled and kept in a place inaccessible to students (either the prep lab, flammable cabinet OR hazardous waste bunker) to minimize fire hazards as well as environmental health hazards due to spills or leaks. Appropriate Hazardous Waste OR WHMIS labels should be used.
 - (3) Coordinating with the custodial staff prior to the scheduled pick up date to ensure the location of the waste is identified.
 - (4) Instruction to teaching staff on their responsibilities at the beginning of each semester.
 - (5) A Hazardous Waste Disposal Form shall be completed by each School indicating the school name, location of hazardous waste, and approximate quantity and description of goods for disposal and submitted to the Energy and Environmental Technologist.
 - (6) Waste shall not be stored for longer than 90 days after generation.
- i) **Hazardous waste - disposal of “sharps”**
 - i) Always use an approved sharps container when disposing of used sharps to help reduce the risk of injuries.
 - ii) Never reach into sharps containers.
 - iii) Report any incident to the supervisor and seek medical attention.
 - iv) Definition of sharps: Needles, syringes, broken glass, razors, scalpels, knives, or any other object with a sharp edge.
 - v) To safely dispose of used sharps devices follow these steps:
 - (1) Visit any participating pharmacy to receive an approved sharps container, free of charge.
 - (2) Place used sharps into the container, needle tip/sharp edge first.
 - (3) Once the sharps waste has reached the designated fill line, secure the latch (double click) and return to a participating pharmacy. Find the nearest collection locations at <http://www.healthsteward.ca/>.

6) COMPLIANCE AND REPORTING

HPEDSB is required to comply with legislation and regulations relating to energy and environmental issues. Form 130-1 contains a list of energy and environmental contractual and compliance deadlines.

District references

- Board Policy No. 07: Board Policy and Development Review
- Board Policy No. 15: Student Enrolment and School Capacity Pupil Accommodation Review
- Form 130-1: Energy and Environmental Services: Contractual and Compliance Deadlines
- Administrative Procedure 147: Technology Use
- Administrative Procedure 153: Emergency Response
- Administrative Procedure 164: Management of Communicable and Infectious Disease
- Administrative Procedure 170: Communication and Media Relations
- Administrative Procedure 230: Out of School Learning
- Administrative Procedure 225: Character Development
- Administrative Procedure 430: Professional Development

- Administrative Procedure 498: Volunteers in Schools
- Administrative Procedure 505: Procurement
- Administrative Procedure 568: Installation and Application of Building Materials
- Administrative Procedure 585: Safe Drinking Water

Legal references

- Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools, Ontario Ministry of Education, 2009
- Standards for Environmental Education in the Curriculum
- Environmental Education: Scope and Sequence of Expectations, The Ontario Curriculum, Grades 1 to 8, Ontario Ministry of Education 2009
- Environmental Education: Scope and Sequence of Expectations, Grades 9 to 12, Ontario Ministry of Education, 2009
- Shaping Our Schools, Shaping Our Future: Environmental Education in Ontario- Report of the Working Group on Environmental Education, Ontario Ministry of Education, June 2007
- Ready, Set, Green! Tips, Techniques and Resources from Ontario Educators, Ontario Ministry of Education, 2007
- Green Clean Program Resource Guide, 2010
- Ontario Regulation 347, *Environmental Protection Act*
- Ontario Regulation 213/07, *Fire Protection and Prevention Act*