Connecting the Dots:

Strategies for Effective Environmental Learning
Recommendation 29.

In collaboration with environmental experts, develop and distribute a teaching guide for environmental education modelled on Me Read? No Way! and similar ministry resources.
Environmental education is education about the environment, for the environment, and in the environment that promotes an understanding of, rich and active experience in, and an appreciation for the dynamic interactions of:

• The Earth’s physical and biological systems

• The dependency of our social and economic systems on these natural systems

• The scientific and human dimensions of environmental issues

• The positive and negative consequences, both intended and unintended, of the interactions between human-created and natural systems.
The fundamental rationale for changes to educational practice is to best prepare citizens for active participation in democratic governance as a means of addressing the rising economic, social, and environmental challenges...
What: ESD’s Overriding Goal

Learning that supports students becoming engaged citizens who make informed decisions.

How: “Reorienting Existing Education programs:

This implies a review of existing curricula to develop transdisciplinary understandings of social, economic and environmental sustainability.”
Key Features

- A practical guide to improving instruction (specifically boys and reading)
- For teachers, principals, and other education professionals
- Strong link to the research literature
- Presents 13 strategies
The challenges of this project

• Scope of Environmental Education

• Environmental Education is not an add on. It’s strategies must be consistent with all education.

• The context - Shaping Our Schools
Objectives of Today’s Session

• Communicate project goals
• Share framework and approach
• Engage in conversation about relevant learning strategies for EE
• Identify key issues in the wider context of implementing EE in Ontario
• Elicit options for format and use
Key strategies common to many “schools” of environmental education

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<thead>
<tr>
<th>Learning Strategies</th>
<th>Sources</th>
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<tr>
<td>Integration/interdisciplinary, cross curricular</td>
<td>EIC-Leiberman¹</td>
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<tr>
<td>Local environment/community is where learning is based</td>
<td>SOS/Ont. Ministry of EDEE Standards²</td>
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<tr>
<td>Acting on knowing</td>
<td>Placed based³</td>
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<td>Value beyond school – connections to the world beyond the classroom</td>
<td>Sustainability Literature⁴</td>
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<td>Co-operative learning</td>
<td>ESD-UN⁵</td>
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Key strategies common to many leading learning theories and research work

### Key Learning Strategies advocated in key learning theories (non-EE)

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<th>Learning Strategies</th>
<th>Brain based</th>
<th>Constructivist</th>
<th>Multiple intelligences</th>
<th>Authentic Experience and Assessment</th>
<th>Girls and science</th>
<th>Boys and Reading</th>
<th>Different instruction</th>
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<td>Inquiry - student centred</td>
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Key Shared Learning Strategies

• Inquiry driven learning
• Integrated/transdisciplinary learning
• Learning related to, using and occurring in local contexts (built, cultural, natural)
• Acting on knowing
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<th>Characterizing Traditional Practice and Transitional Practice</th>
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<td>• Monologue</td>
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<td>• Mechanistic</td>
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<td>• Reductionist</td>
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<td>• Passive</td>
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Inquiry

- A learner–centred/teacher facilitated approach
- Investigates real world questions relevant to the learner
- A vehicle to apply, extend and demonstrate curricular learning in all subjects
- Provides a context for critical thinking
Integration

“What exactly is integrated curriculum?

In its simplest conception it is about making connections.- across disciplines.. To real life..”

Local community based
–built, cultural natural

Use of the local contexts and opportunities for learning
Acting on Knowing

• If something is worth knowing, it is worth acting upon.

• Applying knowledge, skills and sharing perspectives to some effect in the community (communication, sharing, building, doing, experiencing ...
Other Learning Strategies of Note

• Co-operative learning/social-emotional learning context
• Use of Alternative perspectives
• Authentic assessment and evaluation
• Use of information technology
• ...
List the strategies under consideration

• Take the strategies under consideration and consider their merits.
• Are these the essential strategies that need to be addressed when planning for environmental learning?
• Are there others that need to be included?
• Is there a priority that should be considered?
Prioritizing Learning Strategies

• Which of these strategies if followed in the planning of learning will naturally pull the others along?
From an inquiry perspective …

...environmental education is characterized by the questions that are being asked.
ESD

• ESD has broadened the scope of the questions that need to be considered – environmental – social-economic

• Key issues/challenges include: water, energy, biodiversity, climate change, ecosystems, energy, consumption and economic systems, ...

• Ontario/Canada has its key issues
Product Overview

Print component
• Introduction and context
• Key strategies and their application
• Grade by grade examples with an EE context

Thoughts on an online support component
• Detailed learning examples for each grade
• Ability to stay current
Thoughts on Implementation

• How to use this document when produced?
Next Steps

• Engage EE leaders
• Map what we have with current Ministry of Education policy and other relevant documents
• Field test with teachers
Contact Information

We invite further elaboration of the thoughts presented today

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