

CURRICULUM CONNECTIONS FOR FOREST QUEST

In Canada, each province or territory defines their own program and curriculum materials for schools (1), therefore curriculum links for this resource will vary for each jurisdiction. However, on a national level, this guide supports Canadian efforts to provide Education for Sustainable Development (ESD), which is recognized as one of eight key activity areas common to all provinces and territories, its objective being to “raise students’ awareness and encourage them to become actively engaged in working for a sustainable society”(2). The Council of Ministers, Canada works with all provinces and territories to coordinate the integration of ESD at all levels of the education system.(7)

ESD is cross-curricular, and teaching/learning about climate change is an integral part of ESD related to green spaces can

be easily incorporated into diverse subject areas, including career education, biology and environmental science, math, geography, languages, arts, ICT and vocational education. Some jurisdictions offer multi-credit courses and these can also provide interesting opportunities to explore green jobs with students.

Although there are no Canadian curriculum standards, provinces and territories tend to have many similarities in the types of courses offered at secondary level and their expected outcomes. The tables below provides a sample (but not exhaustive list) of possible middle and secondary school curriculum links for the six modules included in this e-unit.



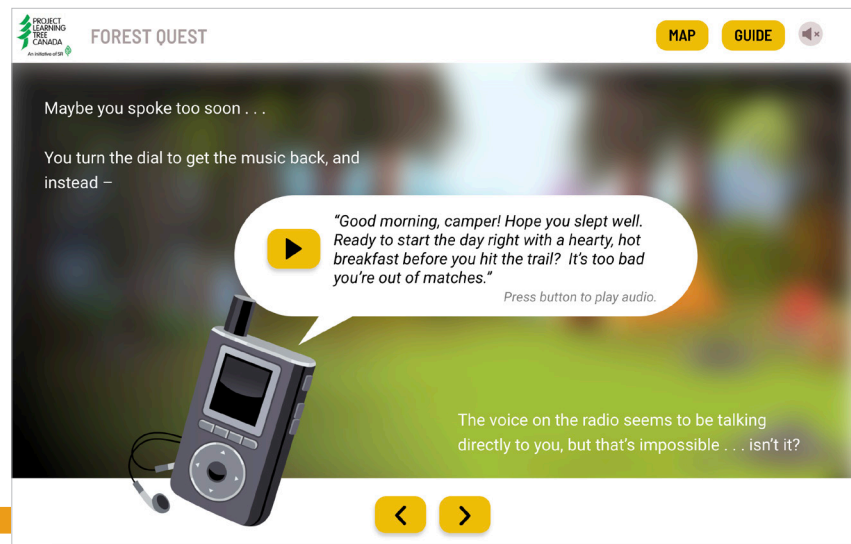
ACTIVITY LINKS TO SECONDARY CURRICULA IN CANADIAN PROVINCES AND TERRITORIES

Secondary Curriculum Outcomes	Course Titles From Various Provinces & Territories
Science	
Use scientific knowledge, identify questions, and draw evidence-based conclusions in order to understand and help make decisions about the natural world and the changes made to it through human activity.(9)	Science Biology Environmental Science Natural Resource Management Experiential Science Earth Science
science inquiry: understanding how inquiries are conducted in science to provide evidence-based explanations of natural phenomena (4)	
problem solving: using scientific knowledge and skills to solve problems in social and environmental contexts (4)	
scientific reasoning: being able to reason scientifically and make connections by applying scientific knowledge and skills to make decisions and address issues involving science, technology, society, and the environment (4)	
Mathematics	
Identify, understand, and engage in mathematics, and make well-founded judgments about the role that mathematics plays in the private, occupational, and social lives of constructive, concerned, and reflective citizens.(4,9)	Mathematics Mathematics for the Workplace Mathematics for Work and Everyday Life
English	
Students have the ability, confidence and willingness to engage with language to acquire, construct and communicate meaning in all aspects of daily living (11)	English English as a Second Language Media & Communication Studies
Understand, use, and reflect on written texts in order to achieve one's goals and potential, develop knowledge, and participate in society. (9)	
Business Studies	
Demonstrate an understanding of ethics and social responsibility in business (17)	

Secondary Curriculum Outcomes	Course Titles From Various Provinces & Territories
Career Education	
Ensure that Canadian youth have the skills, strategies, supports, and resilience they need to transition effectively through their studies and into work (5)	Co-op Education Vocational Education Green Industries Production Technology Skilled Trades Knowledge & Employability Transitions
Arts	
Express and understand meaning, and engage in dynamic ways of creating, thinking, and problem solving. (8)	Media & Communication Studies
Select and use appropriate forms to present identified issues from a variety of perspectives (17)	
Social Studies (7)	
Manage ideas and information	Geography
Critical and creative thinking to solve problems	Canadian & World Studies Environmental Stewardship
Communicate ideas and decisions about significant developments, events, and issues.	Natural Resource Management Indigenous Studies Global Issues: Citizenship & Sustainability Entrepreneurship Living in a Sustainable World
Indigenous Studies (19,20)	
Use indigenous principles of learning (holistic, experiential, reflective, and relational) to better understand connectedness and the reciprocal relationship of First Peoples to the land.	Contemporary Indigenous Studies Mi'kmaq Studies Native Studies
Demonstrate an understanding of the interdependent relationship among individuals, societies, and the environment—locally, nationally, and globally—and the implications for a sustainable future	

Secondary Curriculum Outcomes	Course Titles From Various Provinces & Territories
Information and Communication Technologies	
Share, and adapt knowledge in critical, ethical, purposeful, and innovative ways, and develop skills to responsibly take ownership of these technologies to augment learning and benefit society. (8)	Computer Science Spatial Technologies Communications Technology Computer Technology

The competencies for reading, math and science literacy are derived from the (Pan-Canadian Assessment Program)(4) which in turn is based on the Programme for International Student Assessment (PISA) (9). Competencies for other subjects are derived from a composite of statements from other national and provincial/territorial curriculum documents.



CROSS-CUTTING COMPETENCIES

In Canada, many provinces and territories have identified cross cutting competencies that relate to several or even all subject areas at different grades. The following list of competencies are derived in reference to curriculum documents from Alberta, BC, Nunavut, Ontario and Atlantic Provinces

These competencies generally include creative and critical thinking, problem solving, innovation, collaboration, social responsibility, communication, etc., and have clear synergies to the Forest Quest activity.

- Critical Thinking
- Creativity and Innovation
- Communication
- Problem Solving
- Managing Information
- Cultural and Global Citizenship / Social responsibility
- Personal Awareness, Growth and Well-being

REFERENCES

1. CMEC (Council of Ministers of Education), Canada (2008), **LEARN CANADA 2020: Joint Declaration Provincial and Territorial Ministers of Education**, CMEC, Toronto
<https://www.cmec.ca/Publications/Lists/Publications/Attachments/187/CMEC-2020-DECLARATION.en.pdf>
2. CMEC (Council of Ministers of Education), Canada (2008), **Education in Canada**, CMEC, Toronto
<http://www.cmec.ca/Publications/Lists/Publications/Attachments/64/Education-in-Canada2008.pdf>
3. OECD (2015), **Education Policy Outlook**, Canada, OECD Publishing, Paris
<http://www.oecd.org/education/EDUCATION%20POLICY%20OUTLOOK%20CANADA.pdf>
4. CMEC (Council of Ministers of Education), Canada (2016), **Report on the Pan-Canadian Assessment of Reading, Mathematics, and Science (PCAP)**, CMEC, Toronto
<https://www.cmec.ca/Publications/Lists/Publications/Attachments/381/PCAP-2016-Public-Report-EN.pdf>
5. CMEC (Council of Ministers of Education), Canada (2017), **CMEC Reference Framework for Successful Student Transitions**, CMEC, Toronto
<https://www.cmec.ca/Publications/Lists/Publications/Attachments/372/CMEC-Reference-Framework-for-Successful-Student-Transitions-EN.pdf>
6. The Learning Partnership (2013), **It's Their Future: A Pan-Canadian Study of Career Education**
7. CMEC (Council of Ministers of Education), Canada (2010), **Report to UNECE and UNESCO on Indicators of Education for Sustainable Development Report for Canada**, CMEC, Toronto,
<https://cmec.ca/Publications/Lists/Publications/Attachments/265/esd-canada-report-2007-2010-en.pdf>
8. BC Ministry of Education (2017), **BC's New Curriculum**
<https://curriculum.gov.bc.ca/curriculum/adst/core/goals-and-rationale>
9. CMEC (2018) (Council of Ministers of Education), Canada (2017), **Overview: Programme for International Student Assessment (PISA)**, CMEC, Toronto
[https://www.cmec.ca/251/Programs-and-Initiatives/Assessment/Programme-for-International-Student-Assessment-\(PISA\)/Overview/index.html](https://www.cmec.ca/251/Programs-and-Initiatives/Assessment/Programme-for-International-Student-Assessment-(PISA)/Overview/index.html)
10. ICAMET (Council of Atlantic Ministers of Education and Training), (2015), **The Atlantic Canada Framework for Essential Graduation Competencies**, Canada
http://www.ednet.ns.ca/files/curriculum/atlantic_canada_essential_grad_competencies.pdf
11. Alberta Education, (2016), **The Guiding Framework for the Design and Development of Kindergarten to Grade 12 Provincial Curriculum (Programs of Study)**
<https://education.alberta.ca/curriculum-development/>
12. Manitoba Department of Education & Training, 2018, Curriculum
<http://www.edu.gov.mb.ca/k12/cur/index.html>
13. Nunavut Department of Education, 2016 – 2017, Nunavut Approved Curriculum and Teaching Resources
https://www.gov.nu.ca/sites/default/files/2016-17_nunavut_approved_curriculum_and_teaching_resources_0.pdf
14. Government of the North-west Territories, 2018, Education, Culture and Employment: Curriculum
<https://www.ece.gov.nt.ca/en/services/nwt-curriculum-and-school-list/nwt-curriculum>
15. Ontario Ministry of Education, 2018, the Ontario Curriculum: Secondary
<http://www.edu.gov.on.ca/eng/curriculum/secondary/subjects.html>

16. Saskatchewan Ministry of Education, 2018,
Saskatchewan Curriculum
<https://www.curriculum.gov.sk.ca/webapps/moe-curriculum-BBLEARN/index.jsp#>
17. Ontario Ministry of Education, 2017,
Environmental Education: Scope and Sequence of
Expectations – Grades 9-12.
http://www.edu.gov.on.ca/eng/curriculum/secondary/environmental_ed_9to12_eng.pdf
18. Ontario Ministry of Education, 2017,
Environmental Education: Scope and Sequence of
Expectations – Grades 1-8
<http://edu.gov.on.ca/eng/curriculum/elementary/environment.html>
19. British Columbia, 2020, Learning Standards
<https://curriculum.gov.bc.ca/curriculum/social-studies/12/contemporary-indigenous-studies>
20. Nova Scotia Dept. of Education and Early
Childhood Education, 2014, Learning Outcomes
Framework Grades 10–12
<https://ssrce.ca/wp-content/uploads/2012/08/LOFs-10-12-Aug28-2014-Feb-12.pdf>
21. Nova Scotia Curriculum, Grades 1-8
<https://curriculum.novascotia.ca/english-programs>

