Green Mining

Manitoba	
Grade 7	
Cluster 1: Interactions within Ecosystems	
Specific Learning Outcomes:	7-1-05. Identify and describe positive and negative examples of human interventions that have an impact on ecological succession or the makeup of ecosystems. Examples: positive — protecting habitats, reintroducing species; negative — preventing natural fires, introducing non-indigenous species, draining wetlands for agriculture or housing... 7-1-06. Identify environmental, social, and economic factors that should be considered in the management and preservation of ecosystems. Examples: habitat preservation, recreation, employment, industrial growth, resource development... 7-1-07. Propose a course of action to protect the habitat of a particular organism within an ecosystem. Examples: protect the nesting habitat of a given bird in a local wetland...
Cluster 0: Overall Skills and Attitudes	
Specific Learning Outcomes:	7-0-1d. Select and justify a method to be used in finding a solution to a practical problem. 7-0-2a. Access information using a variety of sources. Examples: libraries, magazines, community resource people, outdoor experiences, videos, CD-ROMs, Internet… 7-0-4c. Work cooperatively with team members to carry out a plan, and troubleshoot problems as they arise. 7-0-4d. Assume various roles to achieve group goals. 7-0-7d. Propose and justify a solution to the initial problem. 7-0-7g. Communicate methods, results, conclusions, and new knowledge in a variety of ways 7-0-8g Discuss societal, environmental, and economic impacts of scientific and technological endeavours. Include: local and global impacts.

Grade 8	
Cluster 4: Water Systems	
Specific Learning Outcomes:	Identify substances that may pollute water, related environmental and societal impacts of pollution, and ways to reduce or eliminate effects of pollution Identify environmental, social, and economic factors that should be considered in the management of water resources. Examples: ecosystem preservation, employment, recreation, industrial growth, water quality...
Cluster 0: Overall Skills and Attitudes	
Specific Learning Outcomes:	8-0-1d. Select and justify a method to be used in finding a solution to a practical problem. 8-0-2a. Access information using a variety of sources. Examples: libraries, magazines, community resource people, outdoor experiences, videos, CD-ROMs, Internet… 8-0-4c. Work cooperatively with team members to carry out a plan, and troubleshoot problems as they arise. 8-0-4d. Identify and assume various roles to achieve group goals. 8-0-7d. Propose and justify a solution to the initial problem. 8-0-7g. Communicate methods, results, conclusions, and new knowledge in a variety of ways 8-0-8g Discuss societal, environmental, and economic impacts of scientific and technological endeavours. Include: local and global impacts.

Grade 10	
Cluster 1: Dynamics of Ecosystems	
Specific Learning Outcomes:	S2-1-10. Investigate how human activities affect an ecosystem and use the decision-making process to propose a course of action to enhance its sustainability. Include: impact on biogeochemical cycling, population dynamics, and biodiversity.
Cluster 0: Overall Skills and Attitudes	
Specific Learning Outcomes:	S2-0-1c. Identify STSE issues which could be addressed S2-0-1d Identify stakeholders and initiate research related to an STSE issue S2-0-2a Select and integrate information obtained from a variety of sources S2-0-2c Summarize and record information in a variety of forms S2-0-2d Review effects of past decisions and various perspectives related to an STSE issue S2-0-3d Summarize relevant data and consolidate existing arguments and positions related to an STSE issue S2-0-3e Determine criteria for the evaluation of an STSE decision S2-0-3f Formulate and develop options which could lead to an STSE decision S2-0-4e Work cooperatively with group members to carry out a plan, and troubleshoot problems as they arise S2-0-4f Assume the responsibilities of various roles within a group and evaluate which roles are most appropriate for given tasks S2-0-5d Evaluate, using pre-determined criteria, different STSE options leading to a possible decision S2-0-7b Select the best option and determine a course of action to implement an STSE decisions S2-0-8d Describe examples of how technologies have evolved in response to changing needs and scientific advances S2-0-9c Demonstrate confidence in their ability to carry out investigations in science and to address STSE issues S2-0-9e Be sensitive and responsible in maintaining a balance between the needs of humans and a sustainable environment