

INSTRUCTIONS FOR USING REMOTE LEARNING PROJECTS

These materials were developed with the intention of easing the transition between in-class and temporary remote learning. Learning experiences are aligned with curricular outcomes and assessment tools have been included with each project.

Note:

1. The teacher either sends a link to the appropriate project or sends the document itself.
2. The teacher ensures that parents/caregivers receive any required school supplies (bin with pencils, markers, paper, etc.).
3. The teacher reassures parents/caregivers that communication will be maintained between home and school.
4. The parents/caregivers may access additional resources at:
 - My Learning at Home (www.edu.gov.mb.ca/k12/mylearning)
 - My Child in School (www.edu.gov.mb.ca/k12/mychild/index.html)

PROJECT OVERVIEW

Grade :	8
Main Subject :	Science
Big Idea :	Impacts of Plastics on Global Water Systems
Title :	PLASTIC IN THE OCEAN
Cluster :	Water Systems
Duration :	3 weeks
Materials :	Jar with lid, hot water, ice, aerosol hair spray, disposable aluminum cake pan or plastic bin, various supplies to create a model landscape (suggestions are provided but students may determine substitutes based on available supplies at home), aluminum foil, permanent marker, chocolate pudding or hot chocolate mix, lime and orange gelatin mix, spray bottle or water can
Short description :	This learning experience examines the impact of plastics on our water systems and the interconnectedness of global and local water systems. Students will apply their understanding of this interconnectedness to creating a campaign to improve the management of our water systems. Most learning activities can be completed independently but will be enhanced with key synchronous experiences that will enrich students' learning throughout this experience.

LEARNING OUTCOMES

Science: www.edu.gov.mb.ca/k12/cur/science/scicurr.html

8-0-01, 8-4-06, 8-4-07, 8-4-17, 8-4-18, 8-4-19

8-0-1a, 8-0-2a, 8-0-2b, 8-0-2c, 8-0-5f, 8-0-6a, 8-0-7b, 9-0-7f, 8-0-7g, 8-0-9e, 8-0-9f

Mathematics: www.edu.gov.mb.ca/k12/cur/essentials/docs/glance_kto9_math.pdf

8.SP.1

English language arts: www.edu.gov.mb.ca/k12/cur/ela/index.html

Practices: Language as Sense Making, Language as System, Language as Power and Agency, Language as Exploration and Design

Lenses: Personal and Philosophical and Environmental and Technological

ASSESSMENT

LANGUAGE ARTS					MATHEMATICS			SCIENCE			SOCIAL STUDIES		
COMP. Listening & Viewing	COMP. Reading	COMM. Speaking & Represent.	COMM. Writing	Critical Thinking	Knowledge and Understanding	Mental Math & Estimation	Problem Solving	Knowledge and Understanding	Scientific Inquiry Process	Design Process & Problem Solving	Knowledge and Understanding	Research and Communication	Critical Thinking and Citizenship
x	x	x	x	x	x			x		x			

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LEARNING EXPERIENCES AND ASSESSMENT

Question: Why should I care that the oceans are being polluted when I live in the middle of the continent?

Teacher's instructions:

Start Your Thinking:

Begin this learning experience with a synchronous class session. During this session, begin with a Notice/Wonder routine using the images on slide 3. Through the discussion of student wonderings introduce the question for this learning experience on slide 4. After the discussion students can be independently assigned Thoughtbook #1 (see slides 5 and 6) and the two boxes on the left of the KWLN on slide 7.

Enrich Your Thinking:

In this section, students will engage in learning about water cycles, drainage systems, how garbage enters the water systems, and the impact of our actions on water systems. As students begin this section you may want to introduce the End of Learning Challenge (slide 9), the critical thinking prompts (slides 10 and 11), and the table of contents (slide 12). Students will be able to engage in the four learning sections independently. However, student learning would be greatly enhanced with an opportunity to share their learning and experiences before completing the Thoughtbook entry at the end of each section.

Consolidate Your Thinking:

Begin this section by having students complete and discuss synchronously Thoughtbook #6 (slide 49). Introduce the Campaign task (slide 50). Create a task checklist and excellence criteria with students. Establish timelines for completing and how students will share their projects. Consider scheduling check-ins with individuals or small groups of students to provide guidance and feedback on their progress with their campaigns.

See additional Teacher Notes in the notes section of the PowerPoint.

Step-by-step instructions for students:

See PowerPoint

APPENDIX (PRINTABLE SUPPORT MATERIALS INCLUDING ASSESSMENT)

Grade 8: Plastics in the Ocean.pptx

Grade 8: Appendix A: ELA Assessment Tool.docx

Grade 8: Appendix B: Science Knowledge and Understanding Assessment Tool.docx

Grade 8: Appendix C: Mathematics Achievement Indicators.docx

ELA Assessment Tool

Grade 8—Plastic in the Ocean

The ELA Assessment Tool is one way you can analyze and record/document what you are noticing in each student’s body of evidence. This analysis can help you identify areas of student learning growth, help with communicating learning, and justify your professional judgements on the Manitoba report card. When you analyze a body of evidence of student learning at several points in time, consider:

- Is a student enacting the four ELA Practices, Elements, and 6 to 8 Grade Band Descriptors?
- To what extent? Is there evidence of independence, breadth, depth, and transformation (IDOL-G)?

Evidence of Learning in English Language Arts		Interrelated Dimensions of Learning Growth (IDOL-G)			
https://app.mapleforem.ca/en/groups/229/wiki/pages/1622#6to8overview <i>*It is important to think about the grade band descriptors in relation to the practice, elements as you look through the body of evidence.</i>		https://app.mapleforem.ca/en/groups/229/wiki/pages/2205			
		Independence	Breadth	Depth	Transformation
		Emerging Expanding Extending	Emerging Expanding Extending	Emerging Expanding Extending	Emerging Expanding Extending
4 ELA Practices & Elements	Grade Band Descriptors Identified				
Power and Agency <ul style="list-style-type: none"> • Recognize and analyze inequities, viewpoints, and bias in texts and ideas • Investigate complex moral and ethical issues • Contemplate the actions that can be taken, consider alternative viewpoints, and contribute other perspectives Connection to Science Outcomes: 8-0-2b, 8-0-7b, 8-0-9e, 8-0-9f	Learners are recognizing that one’s identities are influenced by various factors and change over time and contexts.				
	Learners are understanding that texts represent and promote particular beliefs, values, and ideas.				
	Learners are exploring multiple perspectives, points of view, and interpretations.	E.g., Extending: Identified multiple perspectives and POV in the various texts and during discussions with peers.	E.g., Emerging: Used examples and references to make connections and show the multiple perspectives represented in the texts used in this learning experience.	E.g., Expanding: During whole class and small group discussions, shared opinions and interpretations of the multiple perspectives and POV presented in texts and by other.	E.g., Emerging: Opened to learning about new perspectives, but is not yet showing initiative to find new ways to connect multiple perspectives between world views and the cultures of others.
	Learners are exploring their own voices to transform their identities, tell their personal narratives, and critically view their own and others’ texts.				
	Learners are collaborating to investigate challenging social issues, moral dilemmas, and possibilities for social justices.				

<p>Exploration and Design</p> <ul style="list-style-type: none"> • Research and study topics and ideas • Interpret and integrate information and ideas from multiple texts and sources • Manage information and ideas • Invent, take risks, and reflect to create possibilities <p>Connections to Science Outcomes: 8-0-1c, 8-0-2a, 8-0-2c</p>	Learners are participating in, extending, and discussing creative processes for designing.				
	Learners are selecting, assessing, and organizing a variety of sources and information for different purposes.				
	Learners are reconstructing, manipulating, and remixing existing texts or sets of text to create new ideas, forms, purposes, and messages.				
<p>Sense Making</p> <ul style="list-style-type: none"> • Access, use, build, and refine schema • Select from and use a variety of strategies • Be aware of and articulate the ways that one engages with text. <p>Connection to Science Outcomes: 8-0-1a</p>	Learners are monitoring, reflecting on, and discussing processes for making sense of and creating texts.				
	Learners are strategically selecting and applying strategies and processes for making sense of and creating different types of text for different purposes and audiences.				
	Learners are using a variety of thinking processes (e.g., computational, imaginative, creative, interpretive, critical, etc.) to make sense of and respond to increasingly varied and complex texts.				
	Learners are using and integrating background knowledge and sources of information purposefully to make sense of increasingly varied and complex texts.				

<p>System</p> <ul style="list-style-type: none"> Recognize, apply, and adapt rules and conventions Identify, analyze, and apply understandings of whole-part-whole relationships <p>Connection to Science Outcomes: 8-0-7f, 8-0-7g</p>	<p>Learners are more consistently and strategically applying knowledge of and using various resources for spelling, grammar, punctuation, and capitalization.</p>				
	<p>Learners are using their understanding of a range of text structures and features to understand and communicate clearly and effectively.</p>				
	<p>Learners are assessing and applying their understanding of how the English language works to understand more challenging and unfamiliar texts, and for clarity, precision, and accuracy in own creations.</p>				

Appendix B

Science Knowledge and Understanding Assessment Tool

Note: See the ELA and Mathematics Assessment Tool for Design Process and Problem Solving. These have been integrated into these assessment tools.

View Achievement Profiles: Manitoba Report Card Grade Scale—Science Achievement Profiles (Grades 1 to 8) Subject Category: Knowledge and Understanding	In the boxes below indicate the students responses and evidence of learning through their work in the project as well as the report and diorama			
	Limited (1): Requires considerable ongoing teacher support to <ul style="list-style-type: none"> explain concepts related to a topic of study. make connections between science concepts and real world contexts describe thinking and reasoning using science vocabulary 	Basic (2): Requires occasional teacher or peer support to: <ul style="list-style-type: none"> explain concepts related to a topic of study. make connections between science concepts and real world contexts describe thinking and reasoning using science vocabulary 	Good (3): <ul style="list-style-type: none"> Explains concepts related to a topic of study Makes connections between science concepts and real-world applications. Requires occasional prompting to describe thinking and reasoning using science vocabulary 	Very Good to Excellent (4): <ul style="list-style-type: none"> Explains concepts related to a topic of study accurately, clearly, and flexibly. Logically and creatively makes connections between science concepts and real-world applications. Explains thinking and reasoning clearly using appropriate science vocabulary.
8-4-01 Use appropriate vocabulary related to their investigations of water systems.				
8-4-06 Describe the components of the global water cycle and explain ow it works.				
8-4-07 Describe features of the North American drainage system.				
8-4-17 Identify substances that may pollute water, related environmental and societal impacts of pollution, and ways to reduce or eliminate effects of pollution.				
8-4-18 Identify environmental, social, and economic factors that should be considered in the management of water resources.				
8-4-19 Use the design process to develop a system to solve a water-related problem.				

Mathematics Achievement Indicators

<p><u>Outcome and Achievement indicators:</u></p>	<p>Limited Requires considerable, ongoing teacher support and/or direction to choose strategies or to explain concepts and procedures. May not recognize that results are not reasonable.</p>	<p>Basic Requires occasional teacher or peer support to choose and explain appropriate strategies and procedures. Recognizes when results are extremely unlikely.</p>	<p>Good Represents and explains concepts accurately and clearly; chooses and explains appropriate strategies and procedures. Recognizes when results are not reasonable.</p>	<p>Excellent Represents and explains concepts accurately and clearly; chooses and explains appropriate strategies and procedures. Recognizes when results are not reasonable.</p>
<p>8.SP.1 Critique ways in which data are presented [C, R, T, V]</p> <p>Connection to Science Outcomes: 8-0-5f, 8-0-6a</p>				