

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. 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:	2
Main Subject:	Science
Big Idea:	Exploring the importance of clean air and water for plants, animals, and humans, and creating a water filtration system.
Title:	DRINKING WATER
Cluster:	Air and Water in the Environment
Duration:	3 weeks (15 teaching days)
Materials:	<ul style="list-style-type: none">• Student Slides (digital or printed copy)• Google Slides available here: DRINKING WATER• Air and water pollution research books (students without online access)• Small Mirror (1 each)• Performance task students need:<ul style="list-style-type: none">○ 1 XL Ziploc plastic bag○ permanent Markers○ water○ blue food coloring (optional)○ packing tapeOR<ul style="list-style-type: none">○ a paper plate○ markers○ construction paper○ cotton balls○ string○ glue• Demonstrations have many different required materials: See slides 15, 25. and final challenge videos—students may need items in the video.

Short Description:	This learning experience has some asynchronous/independent learning opportunities but it is suggested that the teacher lead the class through synchronous learning (in-class or online) with regular check-ins and discussion points. Information is provided for the student to read and view how water cycles through the different forms, and students learn about the importance of clean drinking water and the unfair distribution of safe drinking water in different parts of the world, including Manitoba.
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LEARNING OUTCOMES

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

2-4-06, 2-4-07, 2-4-11, 2-4-12, 2-4-13

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

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

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			

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LEARNING EXPERIENCES AND ASSESSMENT

Overall

Teacher's instructions:

- Virtual (Synchronous)
 - Most slides have teacher instruction in the teacher notes. Be sure to review before each day.
 - Provide a copy (digital or print) of the PowerPoint for each student (PPT or google slides).
 - Meet with the students daily and work through each section of the lesson as a whole group.
 - Provide support to students as they work through the lesson.
 - Provide time for discussion and collaborative thinking.
- In-Class:
 - Most slides have teacher instruction in the teacher notes. Be sure to review before each day.
 - Provide a copy of the PowerPoint (digital or print) for each student (PPT or google slides).
 - Meet with the students daily and work through each section of the lesson as a whole group.
 - Provide support to students as they work through the lesson.
 - Provide time for discussion and collaborative thinking.

Note: For all students requiring only printed materials please provide the actual links to the videos and provide resource books for the students to use as an alternative to the online resources

Step-by-step instructions for students:

- Step 1: Work through the slides/sheets—follow all directions carefully and work with a grown-up as much as possible—especially for all demonstrations and experiments.
- Step 2: Keep all work organized to submit at the end.
- Step 3: Check in with your teacher and ask questions daily.
- Step 4: Try your best and work hard!

Question: What is the most useful form of water in the environment?

Teacher's instructions:

Pre-Lesson Meeting: Teacher-Caregiver-Student Meeting via video

- Introductions and establish a warm rapport.
- State theme of the unit and the focus of the learning.
- Discussion of unit expectations:
 - Technology, timeline caregiver support, caregiver and student needs and adaptations, etc.
 - Demonstrations and Experiments (gather materials needed).
 - Performance Task—List of materials needed.
 - Final Project—give a list of materials to begin gathering.
- Opportunity for questions from caregiver and student.

Day 1:

- Slide 1—Discuss the overarching question on the title slide, ask students what they think it means, and if they believe they are drinking the same water as the first people who were on earth?
- Slides 2 and 3—Asks students to answer the question, justify, and create their own ideas on how they could clean the dirty glass of water .
- Slide 4—Watch the video and stop before the child answers the question, inform students that this will be their task at the end of the unit and to begin collecting materials they think they will need.
- Slide 5—Look at the different sections that will be explored over the next couple weeks. Provide time for questions.

Day 2:

- Slides 6–8—Teacher-led synchronous learning with the whole class.

Day 3:

- Slides 9 and 10—Optional independent learning with a caregiver or as synchronous learning led by teacher with the whole class.
- Slide 11—Independent pencil and paper task.

Day 4:

- Slide 12—Teacher-led, whole class discussion (continued in next section).

Question: How is the water cycle important?

Teacher's instructions:

Day 4 (continued)

- Slide 13—Teacher-led synchronous learning with the whole class.
- Slide 14—Independent student experiment. Remind caregivers to not give away the answer and allow students to come up with their own explanation of events.

Day 5:

- Slide 15—Demonstrations can be done by the teacher or at home with a caregiver. (*Other demonstrations can be suggested.*)
- Slides 16 and 17—Observation and reflection journals that students can use to respond to the demonstrations.
- Slides 18 and 19—Independent learning opportunity for students to complete extra research and track their learning in the Learning Entry Log.

Day 6:

- Slides 20-22—Check-in with students and discuss the performance task, ensure all students know what they need to complete independently.
 - In the teacher notes (Slide 20), there is an optional performance task that could be used for students unable to complete the Water Cycle in the Bag.

Day 7:

- Discuss performance tasks.
- Slides 21 and 22—Whole-class discussion (opportunity for formative assessment).
- Slide 23—Apply learning: independent activity.

Question: What are the worst pollutants in the water today?

Teacher's instructions:

Day 8:

- Slide 24—Teacher-led synchronous learning with the whole class.
- Slide 25—Optional as independent or whole class activity.
- Slide 26—Read the article with the whole class and add ideas to the pollution chart.
- Slide 27—Independent (with a caregiver) ask students to review 2–3 of the resources and add to their charts.

Day 9:

- Slide 28—Teacher demonstration: Create an Oil Spill. (This can be done previous to class, video recorded, and shown in class—it can be done with students.)
- Slide 29—Optional independent or whole-class activity (opportunity for formative assessment).
- Slide 30—Students should have a good idea about what pollutants are at this point. Ask students to discuss the meaning of WORST. Add their ideas to the boxes. Ask the students to choose the top three criteria for WORST. Use the criteria on the next page to answer questions on the next slide (slide 31).
- Slide 31—Apply their learning: independent student activity.

Question: Is clean drinking water fair for everyone in the world?

Teacher's instructions:

Day 10:

- Slide 32—Teacher-led synchronous learning with the whole class.
- Slide 33—Ask each student to make their own decision and record it somewhere.
- Slide 34—Discuss as a whole class and make note of students' responses.
- Slides 35 and 36—Independent activity: watch the video and answer the questions.

Day 11:

- Slide 37—Discuss video and questions, review statistics (1/6 of children do not get clean drinking water).
- Slide 38—Discuss Manitoban communities without clean drinking water.
- Slide 39—Apply their learning: independent activity.

Day 12-15:

- Slides 40–45—Final Challenge: Check in with students daily to see where they are at in their design process and provide feedback and support as needed.
- Slide 46—Ask the students to review the work they are about to submit.
 - Ask them to check to make sure they have included everything in their checklist.
 - Review criteria for excellence with the students and ask them to fill out the self reflection section on the work they have completed.
 - Ask the students what did they feel went well during this section, what did they learn, and what did they do well?
 - Ask the students what they feel was the most challenging in this section and what changes they feel they could make?
 - Ask the students where they would like to go next in their learning, what next steps would help them reach their learning goal and complete the challenge?
 - Once you have received their work for this section, affirm and revise the work and conference with the students to compare their self-reflection with the teacher's guidance/feedback.

APPENDIX (PRINTABLE SUPPORT MATERIALS INCLUDING ASSESSMENT)

Grade 2: Drinking Water.pptx

Grade 2: Review Documents for Reporting Purposes:

[Manitoba Report Card Grade Scale—Science Achievement Profiles \(Grades 1 to 8\) Subject Category: Knowledge and Understanding](#)

[Manitoba Report Card Grade Scale—Science Achievement Profiles \(Grades 1 to 8\) Subject Category: Design Process and Problem Solving](#)

Grade 2: ELA Assessment Tool: Evidence of Student Learning Rubric.docx

Grade 2 ELA Assessment Tool: Evidence of Student Learning

Indicate in each box emerging, expanding, or extending and describe student evidence of learning.

Evidence of Learning in English Language Arts https://app.mapleforem.ca/en/groups/229/wiki/pages/1622#3to5overview			Interrelated Dimensions of Learning Growth (IDOL-G) https://app.mapleforem.ca/en/groups/229/wiki/pages/2205			
			Independence Emerging Expanding Extending	Breadth Emerging Expanding Extending	Depth Emerging Expanding Extending	Transformation Emerging Expanding Extending
4 ELA Practices & Elements	Grade Band Descriptors Identified	Report Card Connection				
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 	Learners are recognizing that texts have different audiences, purposes, agendas, and points of view.	Comprehension: <ul style="list-style-type: none"> Listening Viewing Reading 	Example: Expanding: Student researched the tiger and was able to find the answers to each question.			
Exploration and Design <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 	Learners are using different sources to explore ideas and to deepen and extend thinking.	Comprehension: <ul style="list-style-type: none"> Listening Viewing Reading 				

Sense Making <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.	Learners are using what they know about text to understand and create new texts.	Critical Thinking				
System <ul style="list-style-type: none">• Recognize, apply, and adapt rules and conventions• Identify, analyze, and apply understandings of whole-part-whole relationships	Learners are experimenting with, using, and adjusting conventions of familiar print, oral, and visual texts to enhance communication.	Comprehension: <ul style="list-style-type: none">• Writing• Representing• Speaking				