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:	7
Main Subject:	English Language Arts and Science
Big Idea:	Sustainable Development of Geological Resources
Title:	TO DIG OR NOT TO DIG?
Clusters:	Earth's Crust
Duration:	2–3 weeks
Materials:	Various
Short Description:	This integrated Science and English language arts learning experience invites students to investigate their own and others' perspectives regarding sustainable development of geological resources. Through guided inquiry students have opportunities to explore a variety of texts representing multiple perspectives and opinions, to deepen and inform their own and others understandings. Students will consider how and what influences their personal perspectives and understandings of resource extraction. Students are challenged to create actionable plans to support sustainable development. This learning experience combines online synchronous and asynchronous learning.

LEARNING OUTCOMES

English Language Arts: www.edu.gov.mb.ca/k12/cur/ela/framework/index.html
The four ELA Practices, Elements, and 6 to 8 Grade Band Descriptors (see Appendix H)

Science: www.edu.gov.mb.ca/k12/cur/science/scicurr.html
Cluster 0: 7-0-1a, 7-0-2a, 7-0-2b, 7-0-2c, 7-0-8g, 7-0-9e, 7-0-9f and Cluster 4: 7-4-01, 7-4-06, 7-4-07, 7-4-08, 7-4-11 (see Appendix I)

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				

Original concept created by: Denise Smith and Angie Burdett

LEARNING EXPERIENCES AND ASSESSMENT

Question: How do personal experiences and local context knowledge impact our ideas, opinions, and decision making about sustainable development of geological resources?

Overview of Learning Experience

The detailed learning experience instructions (see Appendix A) and the accompanying PowerPoint can be adapted as needed. Before looking at the PowerPoint please read this overview to familiarize yourself with the big picture of this learning experience.

What's the big idea?

In this interdisciplinary learning experience, students engage in meaningful inquiry and experiences that integrate ways of knowing, doing, and being in English language arts and Science. Through inquiry, students unpack the big idea, the essential question, the two guiding questions, and their own 'burning questions' generated through research and class discussion. To maintain the richness and authenticity of learning through an inquiry stance, students should actively investigate and explore their wonderings.

This learning experience will provide opportunities for students to enact the four ELA Practices, elements and grade band descriptors as they explore, represent, and reflect on their own and others perspectives, points of view, and actions related to Science Cluster Four: Earth's Crust. Through the personal/philosophical and environmental/technological lenses of the ELA curriculum, students will examine their own and others' perspectives about geological resource extraction and sustainability. Many factors influence our perspective and understandings of sustainable development of geological resources. Students will deepen their understandings of the environmental, social and economic factors that must be considered when making informed decisions about land use and geological resources.

What is this learning experience?

This learning experience is designed around an essential question, guiding questions, student questions/ wonderings, and a student challenge.

1. **Essential Question:** "How do personal experiences and local context knowledge impact our ideas, opinions, and decision making about sustainable development of geological resources?" This question frames the entire learning experience as an inquiry to be investigated. The question connects to students' lives and the disciplines of English language arts and Science, and it can be applied in a meaningful way beyond the classroom. Throughout this learning experience, teachers and students should refer to the essential question to situate learning and pull together the guiding questions and student wonderings.

2. **Student Challenge:** Create an actionable plan that supports sustainable development of geological resources that is supported by research and reflects your understandings and opinions about sustainable development. The student challenge gamifies this learning experience by inviting students into the overarching challenge/quest. The language used to construct the student challenge positions students as decision makers and creators from the very beginning of the learning experience. As students reflect, question, and investigate to deepen their understandings, they are making increasingly complex connections and design decisions. Even though the student challenge may seem final, students are expected to transfer and apply their learning to other experiences and contexts.
3. Two **guiding questions** are designed to focus and deepen inquiry into "the essential question." By investigating these guiding questions along with students' own questions, students can more deeply and personally engage in the student challenge:
    a. How do the beliefs, values, and ideas expressed in texts, influence my understanding of sustainability of geological resources?
    b. How do our understandings of sustainable development impact our ideas and opinions about the development of geological resources?
4. **Assessment Tool:** The ELA and Science Assessment Tools provide a space to organize and record your documentation of observations, conversations, and products/processes. These tools are one way you can analyze 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?
    - Is a student demonstrating the knowledge, values and skills of science?
    - To what extent is there evidence of independence, breadth, depth, and transformation (IDOL-G).

The Interrelated Dimensions of Learning Growth have been applied to both ELA and Science in this learning experience. Where learning relates to and is described in both subject curricula, it has been combined in the ELA Assessment Tool.

APPENDIX (PRINTABLE SUPPORT MATERIALS INCLUDING ASSESSMENT)

Grade 7: To Dig Or Not To Dig?.pptx
Grade 7: Appendices
- Appendix A: Detailed Learning Experience Instructions
- Appendix B: Text Set
- Appendix C: Inquiry Chart
- Appendix D: Connection and Reflection
- Appendix E: Text Code Symbols
- Appendix F: Peer Conference Guide
- Appendix G: Evidence of Student Learning
- Appendix H: ELA Assessment Tool
- Appendix I: Science Assessment Tool

Appendix A

Detailed Instructions
Grade 7 Learning Experience

The following is a suggested sequence and pacing for this learning experience. Enhance, adapt and adjust as appropriate for your learners and context.

Day 1 (Synchronous—Teacher Facilitated Learning)

Prep and Materials: Slides 1–5 for presenting during lesson

1. **(A.M)** Introduce the learning experience by showing images of an oil rig, pipeline, and off shore oil rig in ocean and ask students to discuss the photos. If they need support in sustaining the conversation, consider the following prompts (Opportunity for anecdotal notes on student learning),
    a. What do you see?
    b. Who do you think took the picture?
    c. Why do you think they took the picture?
    d. What do you wonder?
2. Invite students to discuss the title on the second slide. Ask students to record, in the chat, what they think the learning experience might be about. Share the essential question and student challenge.
3. Ask students to identify or discuss geological resources in their community/area. How does resource extraction affect their community or family directly or indirectly?
4. (Asynchronous) Note: This could be done on the next day if you are not able to split your time with students into two parts. Tell students to independently listen to the read aloud and book talk by Carole Lindstrom, *We are Water Protectors* www.youtube.com/watch?v=2YHaRmj9wLU.
5. **(P.M.)** Use the questions in the THH chart to guide a class discussion about the read aloud/book talk and model how to complete the THH Chart.

Day 2 (Asynchronous—Independent Student Learning)

Prep and Materials: Copy of slide 6 sent to students for completion.

6. Slide 6–Read/view the article by the Canadian Association of Petroleum Producers (CAPP) on *Oil Extraction* www.capp.ca/oil/extraction/. Complete the THH chart.

Day 3 (Asynchronous—Independent Student Learning)

Prep and Materials: Copy of slides 7-9 sent to students for completion.

7. Slide 7—Read/view the article written by Marina Qutab for One Green Planet, called, *What are Tar Sands and Why Should You Oppose Them (and How to Do It).* Complete the THH chart. www.onegreenplanet.org/environment/what-are-tar-sands/
8. Slide 8—Answer the Anticipation Guide question by indicating what you think is the level of importance of each of the three things (pillars) to sustainability.
9. Slide 9—Watch the video, *What is Sustainable Development*. www.youtube.com/watch?v=7V8oFI4GYMY. Record, in the white box on the slide, 2-3 sentences that explain or describe the three things (pillars) we need to keep in mind when we think about sustainable development. Submit your work to your teacher before the next synchronous session. Note to teacher: There are a variety of ways students can record their responses (e.g., make copies of this slide for each student, use another platform such as Flipgrid, create an assignment in Teams Notebook, or have students record in a journal and have ready for their synchronous lesson the next day).

Day 4 (Synchronous—Teacher Facilitated Learning)

Prep and Materials: Copy Slides 10 and 11 into another **Interactive PowerPoint** and duplicate each slide so you have one of each slide for each breakout group that will meet later in this class. Also include enough copies of slide 12 so that there is at least one box available per student in your class.

10. Begin by sharing two or three samples of students' explanations of what sustainable development is/means and discuss the connections or differences.
11. Assign groups of students to breakout rooms to discuss the question, "How do the ideas and opinions expressed in the previously viewed texts, address or reflect the three pillars of sustainability (environment, economics, and social responsibility)?" Each group will discuss and record their responses in the appropriate boxes in the chart on slide 10. This will be shared with the other groups when they return to the main room.
12. Return students to the main room and "Gallery Walk" the collection of slides created in the breakout rooms. Guide a class discussion to compare and contrast the ideas and opinions recorded in the charts. What is similar and what is different about the charts? Why might that be? (Opportunity for anecdotal notes on student learning)
13. Send students to breakout rooms for a second time. This time they will use Slide 11 to discuss and record their thinking about the similarities and differences between the three perspectives presented in the texts they read, heard and discussed.
14. Return students to the main room to share what they noticed and what they now wonder. (Opportunity for anecdotal notes on student learning)
15. (**Asynchronous**) As homework, ask students to consider all that they have read, heard, viewed, and discussed so far and what they are now wondering. Tell them to think of a "Burning Question" and type it into the copy of slide 12 in the Interactive PowerPoint to share with their class.

Day 5 (Synchronous—Teacher Facilitated Learning)

Prep and Materials: Copy of slide 12 from Day 4 that has the "Burning Questions" and slide 13 for presenting

16. As a class, discuss and sort the questions into similar themes/topics/categories. Tell students they will now choose a question to research. It may be the "Burning Question" they originally thought of, it may be something they heard a classmate share, or it may be some new wondering they thought of as a result of the class conversation. Students must submit their chosen inquiry question to the teacher by the end of the day.
17. Explain that they will go away to do some preliminary investigating into their inquiry question and then come back on Day 7 to discuss their findings with others in a group with a similar inquiry focus. They should also start to think about how they will be sharing their learning on Day 14 (e.g., article, poster, recording, song, etc.). (Slide 13)
18. For the purpose of modeling, think of your own "Burning Question" or wondering related to all that has been explored so far. Draw students' attention back to the essential and guiding questions to review the focus of this learning experience. Using the Think Aloud strategy, model the process of reflection and explain,
    a. how the research topic connects to the essential question or guiding questions
    b. how the research will help deepen you thinking and inform your understandings of sustainable development of geological resources

Day 6 (Asynchronous—Independent Student Learning)

Prep and Materials: Share slide 14 with students. Optional: provide students with a copy of Inquiry Chart (Appendix C) and Connection and Reflection (Appendix D).

19. Students independently research their Burning Questions. Students should record their information in some way to keep track of their learning and to share with others (see Appendix C for possible Inquiry Chart). Students answer the questions: What am I thinking now? What do I wonder?
20. Students reflect on the essential and guiding questions and their inquiry question and explain (see Appendix D).
    a. how their inquiry topic connects to the essential question or guiding questions.
    b. how their inquiry will help deepen their thinking and inform their understandings of sustainable development of geological resources.

Day 7 (Synchronous—Teacher Facilitated Learning)

Prep and Materials: Copy of slide 14 for presenting. Share slide 15 with students.

21. Create breakout rooms based on the inquiry themes/topics/categories created on Day 5. Have students share what they have learned about their inquiry question so far. This is the time that students may want to revise their inquiry focus if they feel it will not lead them to deeper understandings of the essential or guiding questions. (Opportunity for anecdotal notes on student learning)
22. **(Asynchronous)** To familiarize themselves with who Greta Thunberg is and what she has done, students should listen to the following, *Our House is On Fire,* by Jeanette Winter before the next asynchronous learning experience. (Slide 15). www.youtube.com/watch?v=ErFCIOqUj7Q

Day 8 (Asynchronous—Independent Student Learning)

Prep and Materials: Copy the Los Angeles Times and Washington Post articles into a word or PDF file and share with students in your password protected learning management system. Share slide 16 or Appendix E with students.

23. Students independently read and respond using the "Coding the Text" strategy on Slide 16 or Appendix E. The Los Angeles Times and Washington Post articles represent different perspectives on the same issue.
    a. Los Angeles Time article about Greta Thunberg's speech at the UN Climate Summit www.latimes.com/environment/story/2019-09-23/greta-thunberg-un-climate-summit-global-warming
    b. Washington Post article about anti-Greta challenging climate change theories www.washingtonpost.com/climate-environment/2020/02/23/meet-anti-greta-young-youtuber-campaigning-against-climate-alarmism/
24. Students submit their coded texts to the teacher through a password protected learning management system before the next synchronous session.

Day 9 (Synchronous—Teacher Facilitated Learning)

Prep and Materials: Copy of slide 17 for presenting

25. Teacher facilitates student sharing of responses to the two articles. Have each student share a part of the article and the code they used to respond to that text. This could be done using a 'waterfall' technique where students type their responses in the chat box but do not hit enter or send until prompted by the teacher to do so. Skim the responses and invite specific students to elaborate or expand on their ideas based on what is shared in the chat box. After a student shares, classmates can use an emoji in the chat box to indicate if something resonates with them. Students can also be invited to ask a question or add on to a classmate's idea. (Opportunity for anecdotal notes on student learning)
26. Send to breakout rooms with the question prompts on Slide 17 to guide their discussion. Teacher circulates through breakout rooms to monitor and record anecdotal notes for assessment. After groups have had time to discuss, bring students back to the main room.
27. Have groups share ah-ha moments, burning questions or wonderings, important ideas, etc. Summarize and draw attention to identifying text bias when researching. Encourage students to consider personal biases and author/text biases as they continue their own research.

Day 10 and 11 (Asynchronous—Independent Student Learning)

Prep and Materials: Schedule student meetings.

28. Students independently continue their inquiry and documentation. Teacher schedules one-on-one conferences with students to discuss their research, documentation, and give feedback and support as needed. By Day 10 students should be considering how they will share their learning with others. What mode or multimodal form will best convey their ideas and information with the most impact.

Day 12 **(Synchronous—Teacher-Facilitated Learning)**

Prep and Materials: Copy of slide 14 and 18 for presenting. Share a copy of Appendix F—Peer Conferencing Guide with students.

29. Students share their documentation in their conference with peers in breakout rooms using the Peer Conferencing Guide (see Appendix F). Students will share a summary of what they have learned and how they will communicate that to others. They will explain how their inquiry connects to the essential and guiding questions (Slide 14). Peers will provide feedback to help clarify ideas, make connections to the essential and guiding questions, and provide suggestions about how best to share this information with others.

Day 13 **(Asynchronous—Independent Student Learning)**

Prep and Materials: Schedule student meetings as needed.

30. Students make revisions and edits to their summary of learning based on peer and teacher conference feedback. Teacher schedule one-on-one conferences or offer an open office time for students to drop in as needed to discuss their research and give feedback and support.

Day 14 **(Synchronous—Teacher Facilitated Learning)**

Prep and Materials: Send a copy of slide 19 to students.

31. Students present what they have learned and how it connects to the essential question and guiding questions. They can present their information in any mode or multimodal form they wish.
32. **(Asynchronous—Independent Student Learning)** Students answer the questions on Slide 19 and submit to teacher:
    a. What are some things you learned from your peers that have influenced your understandings and opinions?
    b. How might this influence your decisions and actions regarding sustainable development of geological resources?

Day 15 **(Synchronous—Teacher Facilitated Learning)**

Prep and Materials: Copy Slide 20 and 21 into another **Interactive PowerPoint**. Send a copy of slide 22 to students.

33. Teacher highlights the actions of Carol Lindstrom, Greta Thunberg, and Naomi Seibt as examples of actionable plans people have created to support sustainable development.
34. Brainstorm ideas that students can do to support sustainable development of geological resources. Students will insert a text box or picture with their ideas to Slide 20. As students contribute to the interactive slide, teacher chooses some ideas and invites students to expand on these ideas or thoughts to clarify or provide more details of their thinking.
35. Co-create criteria for their plans by discussing with students what they think their plans should include (Slide 21). Criteria should include the following and any other criteria agreed upon by the group,
    a. Identified idea
    b. Clearly stated practical steps and actions to implement their plan
    c. Explanation of how their plan supports sustainable development of geological resources
    d. Reflection on new attitudes and understandings of sustainable development
36. **(Asynchronous—Independent Student Learning)** Students can choose an idea from the brainstormed list or another idea they thought of on their own, around which to create their actionable plan. Students should explain what they will do and describe the practical steps and actions necessary to implement their plan. Students should explain how this plan supports the sustainable development of geological resources and reflects their new attitudes and understandings of sustainable development.
37. Students revisit the Anticipation Guide on Slide 22 to re-evaluate their opinions about the importance of the three pillars of sustainability and to explain how and why their thinking has changed and why. This will be used to prepare students to discuss how their thoughts and opinions have changed or deepened.

Day 16 (Synchronous—Teacher Facilitated Learning)

Prep and Materials: none

38. Teacher facilitates sharing of actionable plans and reflections on their learning. Teacher will record evidence of student learning based on co-criteria.

Appendix B

To Dig or Not to Dig? Text Set

Images

Oil platform in ocean with ship https://cdn.pixabay.com/photo/2013/05/21/14/32/russia-112445_960_720.jpg

Geological resources and alternative energy https://cdn.pixabay.com/photo/2017/09/06/15/54/pinwheel-2722021_960_720.jpg.

Person walking pipeline https://pixabay.com/photos/person-walking-pipeline-tube-steel-731319/

Picture Books

We are Water Protectors, by Carole Lindstrom (Caldecott Medal) (2020). In this award-winning book, a young Indigenous girl learns the importance of water from her Elders and unites with her community to protect it from the Black Snake. A beautiful story of community, empowerment, and action to protect the environment.
www.youtube.com/watch?v=2YHaRmj9wLU

Our House is On Fire, by Jeanette Winter (2019). This inspiring story of the young climate activist, Greta Thunberg explains the events that led Greta to take action and begin her "School Strike for Climate". She sparked a world-wide movement and mobilized students around the world to press for climate action.
www.youtube.com/watch?v=ErFCIOqUj7Q

Articles

Article, *Oil Extraction*, by Canadian Association of Petroleum Producers (CAPP) (2021). Explains the different methods of oil extractions used in different geological locations.
www.capp.ca/oil/extraction/

One Green Planet article, *What are Tar Sands and Why Should You Oppose them (and How to Do It)*, by Marina Qutab (2017). Explains what tar sands are and the environmental effects of extracting these geological resources.
www.onegreenplanet.org/environment/what-are-tar-sands/

Los Angeles Times article, *Greta Thunberg Admonishes Leaders as UN Climate Summit Fails to Deliver Action,* by Tony Barboza (2019). Reports on Greta Thunberg's impassioned address to the United Nations Climate Summit.
www.latimes.com/environment/story/2019-09-23/greta-thunberg-un-climate-summit-global-warming

Washington Post article, *The Anti-Greta: A Conservative Think Tank Takes on The Global Phenomenon*, by Desmond Butler and Juliet Eilperin (2020). Reports on the Heartland Institutes recruitment of Naomi Seibt to counter the arguments of climate activist Greta Thunberg.
www.washingtonpost.com/climate-environment/2020/02/23/meet-anti-greta-young-youtuber-campaigning-against-climate-alarmism/

Videos

*What is Sustainable Development? b*y Aminaskin (2017). This informative video explains sustainable development and the three things we need to keep in mind for a sustainable future.
www.youtube.com/watch?v=7V8oFI4GYMY

Appendix C

Inquiry Chart

Remember to acknowledge your sources by including the author, date published, title, and website link and date retrieved (for online sources).

I-Chart		
Inquiry Topic:	**My Burning Question:**	
	Relevant Information	**New Questions**
Source 1:		
Source 2:		
Source 3:		
Source 4:		
What am I thinking now?		
What am I wondering?		

Appendix D

Connection and Reflection

Your inquiry question and research should connect to and help inform these questions in some way.

Essential Question: How do personal experiences and local context knowledge impact our ideas, opinions, and decision making about sustainable development of geological resources.

Guiding Question #1: How do the beliefs, values, and ideas expressed in texts, influence my understanding of the sustainability of geological resources.

Guiding Question #2: How do our understandings of sustainable development influence our ideas and opinions about the development of natural resources?

1. How does your inquiry topic connect to the essential question or guiding questions?

2. How do you think the information you discovered will help to deepen your thinking and inform your understanding of sustainable development of geological resources?

Appendix E

Text Coding Symbols

Symbol	When to Use It
√	Confirms what I think or know
!	Is new, interesting or surprising
?	Raises a question I would like to discuss with others
??	Confusing…something I do not understand
*	Seems important…answers a question
><	I have a connection

Appendix F

Peer Conferencing Guide

Start your conference by introducing yourselves.

1

Presenter: Share your inquiry question.

Peer: Actively listen.

2

Presenter: Summarize the findings of your inquiry.

On your summary, **Record** the feedback from your peer.

Peer: Give feedback, ask clarifying questions, and provide suggestions or additional information.

Examples:
I see…
I do not see… (Explain)
Do you mean…?
Can you tell me more about…?
This connects to…
I am wondering if…?

3

Presenter: Explain how your inquiry connects to the essential and guiding questions.

On your summary, **Record** the feedback from your peer.

Peer: Give feedback, ask clarifying questions, and provide suggestions.

Examples:
I see…
I do not see… (Explain)
Do you mean…?
Can you tell me more about…?
This connects to…
I am wondering if…?

4

Presenter: Explain how your thinking has changed.

On your summary, **Record** the feedback from your peer.

Peer: Give feedback, ask clarifying questions, and provide suggestions.

Examples:
I see…
I do not see… (Explain)
Do you mean…?
Can you tell me more about…?
This connects to…
I am wondering if…?

5

Presenter: Explain how you plan to share your information with others.

On your summary, **Record** the feedback from your peer.

Peer: Give feedback, ask clarifying questions, and provide suggestions.

Examples:
I see…
I do not see… (Explain)
Do you mean…?
Can you tell me more about…?
This connects to…
I am wondering if…?
Have you considered…

Please share any other thoughts and ideas that may help inform you or your peers understanding of sustainable development of geological resources.

Appendix G
(Possible Body of Evidence)

Evidence of Student Learning

Essential Question: How do personal experiences and local context knowledge impact our ideas, opinions, and decision making about sustainable development of geological resources?

Student Challenge: Create an actionable plan that supports sustainable development of geological resources that is supported by research and reflects your understandings and opinions about sustainable development.

The evidence of student learning below may be gathered through conversations, observations, products and/or processes. Teachers may also consider any other anecdotal records of class, group or individual student discussions, as evidence when evaluating student learning growth. All Four ELA Practices happen simultaneously, however, the practices indicated may be more predominant in the particular piece of evidence listed.

1. Record of predictions in the chat. (Sense Making)
2. Responses during discussion, identification of geological resources in their community/area, and explaining how resource extraction affects their community or family directly or indirectly. (Exploration and Design)
3. Responses in class discussions and shared completion of the THH chart on *We are Water Protectors*. (Sense Making)
4. Completed THH chart on, *Oil Extraction*. (Sense Making)
5. Completed THH chart on, 'What are Tar Sands and why Should You Oppose Them (and How to Do It)'. (Sense Making)
6. Anticipation Guide (Sense Making)
7. 2-3 Sentences that explain or describe the three pillars of sustainable development. (Sense Making)
8. Responses in Slide 10, Breakout Room Discussion – Part 1. (Exploration and Design)
9. Responses in Slide 11, Breakout Room Discussion – Part 2. (Power and Agency)
10. Class Burning Questions sort. (Exploration and Design)
11. Their Burning Question choice. (Exploration and Design)
12. Research notes or organizer and responses to, 'What am I thinking now? What do I wonder?'. (Exploration and Design)
13. Reflections on essential and guiding questions. (Power and Agency)
14. Responding to texts using Text Coding. (Sense Making)
15. Anecdotal notes from breakout room discussions using Slide 17, Our House is On Fire. (Power and Agency)
16. Sharing of ah-ha moments, burning questions or wonderings, important ideas. (Exploration and Design)
17. One-on-one student-teacher conference notes. (System and Sense Making)
18. Peer Conference notes on summary. (Power and Agency)
19. Presentation of inquiry learning and reflection and connection to the essential and guiding questions. (System and Power and Agency)
20. Brainstorm of ideas for actionable plans. (Exploration and Design)
21. Co-creation of criteria. (Exploration and Design)
22. Anticipation guide. (Sense Making)
23. Student's Actionable plan. (System and Power and Agency)

Appendix H

ELA Assessment Tool

Grade 7—To Dig Or Not To Dig?

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 (see Appendix G) 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 https://app.mapleforem.ca/en/groups/229/wiki/pages/1622#6to8overview **It is important to think about the grade band descriptors in relation to the practice, elements as you look through the body of evidence.*		**Interrelated Dimensions of Learning Growth** (IDOL-G) https://app.mapleforem.ca/en/groups/229/wiki/pages/2205			
4 ELA Practices & Elements	*Grade Band Descriptors Identified*	**Independence** Emerging Expanding Extending	**Breadth** Emerging Expanding Extending	**Depth** Emerging Expanding Extending	**Transformation** Emerging Expanding Extending
Power and Agency • 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: **S-0-8g, 7-0-9e, 7-0-9f**	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. Possible Evidence (see Appendix G): 8, 9, 13, 15, 18, 19, 23	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 won and others' views.				
	Learners are collaborating to investigate challenging social issues, moral dilemmas, and possibilities for social justices.				

Exploration and Design • 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 Connections to Science Outcomes: **7-0-1a, 7-0-2a, 7-0-2b**	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.				
Sense Making • 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. Connection to Science Outcomes:	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) 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.				
System • Recognize, apply, and adapt rules and conventions • Identify, analyze, and apply understandings of whole-part-whole relationships Connection to Science Outcomes: **7-0-2c**	Learners are more consistently and strategically applying knowledge of and using various resources for spelling, grammar, punctuation, and capitalization.				
	Learners are using their understanding of a ranges of text structures and features to understand and communicate clearly and effectively.				
	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.				

Appendix I

Science Assessment Tool

Grade 7—To Dig Or Not To Dig?

The Science 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 (see Appendix G), consider:

- Is a student demonstrating the knowledge, values and skills of science?
- To what extent? Is there evidence of ***independence, breadth, depth, and transformation*** **(**IDOL-G)? https://app.mapleforem.ca/en/groups/229/wiki/pages/2205

Evidence of Learning in Science www.edu.gov.mb.ca/k12/cur/science/outcomes/5-8/gr7.pdf	**Interrelated Dimensions of Learning Growth** (IDOL-G) from ELA Curriculum https://app.mapleforem.ca/en/groups/229/wiki/pages/2205			
Specific Learning Outcomes (Knowledge and Understanding)	**Independence** Emerging Expanding Extending	**Breadth** Emerging Expanding Extending	**Depth** Emerging Expanding Extending	**Transformation** Emerging Expanding Extending
7-4-01 Use appropriate vocabulary related to their investigations of the Earth's crust (As it applies to the sustainability of geological resources). Include fossil fuels, geothermal energy, and sustainability.				
7-4-06 Identify geological resources that are used by humans as sources of energy, and describe their method of formation. Include fossil fuels, geothermal energy.				
7-4-07 Identify geological resources that are present in Manitoba and Canada, and describe the processes involved in their location, extraction, processing, and recycling. Include fossil fuels, minerals.				
7-4-08 Identify environmental impacts of geological resource extraction, and describe techniques used to address these.				
7-4-11 Identify environmental, social, and economic factors that should be considered in making informed decisions about land use. **Possible Evidence** (see Appendix G): 6, 7, 8, 9, 12, 13, 15, 16, 17, 20, 21, 22, 23	e.g. **Extending:** Led group in breakout room discussions about the three pillars of sustainability.	e.g. **Emerging:** Made connections and recognized the pillars in the three articles during discussions. Expanded on their research question by investigating to find additional information.	e.g. **Expanding:** Was able to articulate and shared their new understandings and perspectives regarding the importance of the three pillars based on evidence from their research.	e.g. **Expanding:** Connected the Indigenous world view of stewardship held by Carole Lindstrom and environmental concerns of Greta. Wondered about and inquired into the background of The Heartland Institute who hired Naomi.

Scientific Inquiry Outcomes

These outcomes are reflected in the ELA Assessment Tool.

7-0-1a Formulate specific questions that lead to investigations. Include rephrase questions to a testable form; focus research questions.

7-0-2a Access information using a variety of sources. Examples: Libraries, magazines, community resource people (Including Elders/Knowledge Keepers), outdoor experiences, videos, Internet…

7-0-2b Evaluate the usefulness, currency, and reliability of information, using predetermined criteria.

7-0-2c Make notes using headings and subheadings or graphic organizers appropriate to a topic and reference sources.

7-0-8g Discuss societal, environmental, and economic impacts of scientific and technological endeavours.

7-0-9e Be sensitive and responsible in maintaining a balance between the needs of humans and a sustainable environment.

7-0-9f Consider both immediate and long-term effects of their actions.