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:	6				
Main Subject:	Science				
Big Idea:	Using and conserving energy safety				
Title:	MOVING TO A NEW PLANET				
Cluster:	Solar Systems				
Duration:	1–2 weeks				
Materials:	 Student Slides (digital or printed copy) Google Slides found here: Grade 6 Our Solar System Thoughtbooks 2 pocket folders or duo tangs electronic Thoughtbooks—Use word or google docs to create a space for students to work and add/change ideas as they learn. 				
Short Description:	This learning experience can be an independent student learning experience or can be led by a teacher through synchronous learning (In-class or online). Students will be creating a plan to travel and live on the next most habitable planet. Through inquiry and design students will learn about the planetary order and unique characteristics, gravity and the purpose of the moon, travel time and distance from the sun, Canadian astronauts and their scientific contributions, and space missions and the importance of technological advancements.				

LEARNING OUTCOMES

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

6-4-6, 6-4-4, 6-4-3, 6-4-2, 6-4-14, 6-4-11, 6-4-8, 6-4-9, 6-4-10

Mathematics: <u>www.edu.gov.mb.ca/k12/cur/essentials/docs/glance_kto9_math.pdf</u> 6.N.2, 6.N.8

ELA: www.edu.gov.mb.ca/k12/cur/ela/index.html

Language as: Power and Agency, Exploration and Design, Sense Making, 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
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LEARNING EXPERIENCES AND ASSESSMENT

Questions:

Teacher's instructions:

- Virtual: (Asynchronous)
 - Provide a copy of the PowerPoint (digital or print) for each students (PPT or google slides).
 - Meet with students daily to discuss where they are at within their learning and what they will complete next.
 - \circ $\;$ Provide support to students as they work through the lesson.
 - Provide time for discussion and collaborative thinking.
- Virtual (Synchronous)
 - Provide a copy (digital or print) of the PowerPoint for each students (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:
 - Provide a copy of the PowerPoint (digital or print) for each students (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.

Assessment Tools (rubrics) are included in the slides/PPT at the end of each lesson as well a PDF linked in the appendix.

- One copy per student
 - \circ $\;$ There is a fillable assessment tool at the end of each slide/PPT.
 - Teachers can fill in the table directly on each student's slide/PPT. Then download the filled in assessment tool to a JPEG or PDF and save a copy for each student in their individual files.

OR

- Select the slide or the table on the slide and copy and paste into a word document or a new slide to keep a copy for each student separate from their project slides/PPT. Fill in the table as you work with the student through observation, conversation and/or product
- Indicate in each box the student's actual learning and what they do in each lesson that demonstrates understanding. Include where the student is at and what they need to do to reach the next learning goal.
- Collect evidence of students' growth and changes in their thinking.

Step-by-step instructions for students:

- Review the inquiry final project:
 - Take not of the different elements you will need to complete and the different learning experiences you will have to help you
- Complete each task in order with one exception:
 - Begin by looking at Section 2—The moon and gravity and begin your "Lunar Log." You can work through this and report on your findings while you are working through the other learning experiences within the lesson.
- Jot ideas and notes and drawings in your Thoughtbook as you are researching

Keep track of your Thoughtbook entries and use your Thoughtbook as a place to review, revise, and extend your learning.

APPENDIX (PRINTABLE SUPPORT MATERIALS INCLUDING ASSESSMENT)

Grade 6 Mathematics Achievement Indicators.docx

Grade 6 Science Knowledge and Understanding Assessment Tool.docx

Grade 6 ELA Assessment Tool: Evidence of Student Learning.docx

Grade 6 Mathematics Achievement Indicators

Outcome and Achievement indicators:	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.	Basic Requires occasional teacher or peer support to choose and explain appropriate strategies and procedures. Recognizes when results are extremely unlikely.	Good Represents and explains concepts accurately and clearly; chooses and explains appropriate strategies and procedures. Recognizes when results are not reasonable.	Excellent Represents and explains concepts accurately and clearly; chooses and explains appropriate strategies and procedures. Recognizes when results are not reasonable.
6.N.2 Solve problems involving large numbers, using technology [ME, PS, T]				
6.N.8 Demonstrate an understanding of multiplication and division of decimals [C, CN, ME, PS, R, V]				

Grade 6 Science Knowledge and Understanding Assessment Tool

	In the boxes below indicate the students responses and evidence of learning through their work in the project as well as the report and diop					
View Achievement Profiles: <u>Manitoba Report Card Grade Scale</u> <u>Science Achievement Profiles</u> <u>(Grades 1 to 8) Subject Category:</u> <u>Knowledge and Understanding</u> Science Outcomes:	 Limited (1): Requires considerable ongoing teacher support to 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: 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): 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): 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. 		
6-4-14 Explain how the relative positions of the Earth, moon, and Sun are responsible for moon phases and eclipses.						
6-4-11 Recognize that mass is the amount of matter in an object, that weight is the force of gravity on the mass of an object, and that the force of gravity varies from planet to planet						
6-4-8 Recognize that the Sun is the centre of the solar system and it is the source of energy for all life on Earth.						
6-4-9 Identify the planets in the solar system and describe their size relative to the Earth and their position relative to the Sun.						
6-4-10 Classify planets as inner or outer planets, based on their position relative to the asteroid belt, and describe characteristics of each type.						

Grade 6 Science Knowledge and Understanding Assessment Tool (continued)

	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						
View Achievement Profiles: <u>Manitoba Report Card Grade Scale—</u> <u>Science Achievement Profiles</u> (Grades 1 to 8) Subject Category: <u>Design Process and Problem Solving</u> Science Outcomes:	 Limited (1): Requires considerable, ongoing teacher support to make connections between science concepts and design. Shows limited application of science concepts to help solve a problem. 	 Basic (2): Requires occasional teacher or peer support to make connections between science concepts and design. Occasionally provides incomplete explanations of science concepts needed to solve a problem. 	 Good (3): Applies science concepts to solve problems using criteria and/or constraints. Explanations of science concepts needed to solve the problem are organized and complete. 	 Very Good to Excellent (4): Applies appropriate science concepts efficiently and accurately to analyze problems and choose the best solution with regard to criteria and/or constraints. Explanations of science concepts needed to solve the problem are clear, comprehensive, and logical. 			
6-4-6 Identify technological devices placed in space that help humans learn more about the Earth and communicate more efficiently.							
6-4-4 Investigate past and present space research programs involving astronauts, and explain the contributions to scientific knowledge.							
6-4-3 Identify Canadians who have contributed to space science or space technology, and describe their achievements							
6-4-2 Identify technological developments that enable astronauts to meet their basic needs in space.							

Grade 6 ELA Assessment Tool: Evidence of Student Learning

The following chart is one way to record your body of evidence of student learning. It is important to consider the identified grade band descriptors in relation to the practices and elements as you look through the body of evidence. You are describing the extent to which students enacted the descriptors. Transfer this information into the appropriate reporting categories.

Evidence of Learning in English Language Arts:		Interrelated Dimensions of Learning Growth (IDOL-G) https://app.mapleforem.ca/en/groups/229/wiki/pages/2205					
https://app.mapleiorem.ca/en/groups/229/wiki/pages/1022#5t050verview		Independence:	Depth:	Breadth:	Transformation:		
4 ELA Practices and Elements	Grade Band Descriptors Identified	Emerging Expanding Extending	Emerging Expanding Extending	Emerging Expanding Extending	Expanding Extending		
 Power Agency Contemplate the actions that can be taken, consider alternative viewpoints, and contribute other perspectives 	Learners are exploring multiple perspectives, points of view, and interpretations.						
 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 	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.						
 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 	Learners are using and integrating background knowledge and sources of information purposefully to make sense of increasingly varied and complex text.						
 System Recognize, apply, and adapt rules and conventions. 	Learners are using their understanding of a range of text structures and features to understand and communicate clearly and effectively.						