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| 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](http://www.edu.gov.mb.ca/k12/mylearning))      + My Child in School ([www.edu.gov.mb.ca/k12/mychild/index.html](http://www.edu.gov.mb.ca/k12/mychild/index.html)) |

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| PROJECT OVERVIEW | |
| Grade: | 7 |
| Main Subject: | Science |
| Big Idea: | Earth’s Composition and Proportional Thinking |
| Title: | ZOOM! |
| Cluster: | Earth’s Crust |
| Duration: | Approximately 1 week |
| Materials: | *Zoom* by Istvan Banyai, toy, paper, pencil, science textbook (if available), art supplies (paint, oil pastels, pencils, clay, playdough – whatever is available in the home), ruler, building materials (paper, cardboard, playdough, tape, etc. – whatever is available in the home) |
| Short Description: | Project-based learning experiences examining how we can communicate ideas about the Earth without using oral or written language. The experiences can be completed independently but can be supported with synchronous mini-lessons and sharing of student work and ideas. |

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| Learning Outcomes |
| Science: [www.edu.gov.mb.ca/k12/cur/science/scicurr.html](http://www.edu.gov.mb.ca/k12/cur/science/scicurr.htm)  7-4-01, 7-4-02  Mathematics: [www.edu.gov.mb.ca/k12/cur/essentials/docs/glance\_kto9\_math.pdf](http://www.edu.gov.mb.ca/k12/cur/essentials/docs/glance_kto9_math.pdf)  7.N.3  ELA: [www.edu.gov.mb.ca/k12/cur/ela/index.html](http://www.edu.gov.mb.ca/k12/cur/ela/index.html)  Language as Exploration and Design |

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| 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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| Original concept created by: | Denise Smith and Josh Braaksma |

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| Learning Experiences and Assessment |
| Questions:  What is the composition of the Earth?  How can mathematics be used to compare quantity and measures?  How do we communicate ideas without oral or written language? |
| Teacher’s instructions:  **Launch:**  To begin this learning experience, share the book *Zoom* by Istvan Banyai. This can be done by showing the books to students or viewing the following video: <https://www.youtube.com/watch?v=Kgi-RCEjOLw>  After viewing the book or the video, have students discuss the message that Istvan Banyai was communicating through his book and also discuss how the images change from one page to the next.  Share with students the ideas they will be exploring in these learning experiences, how they share their ideas, and the assessment process.  **During the project learning experiences:**  During this learning experience you might consider some mini-lessons to support your students’ progress. These might include exploring artistic images using different medium and how artists use their medium to communicate ideas and emotions, a compare/contrast of artistic images with science textbook images, and lessons to support proportional thinking using percent and fractions.  When checking in with students use this time for students to share what they have been working on and what they have been learning. From these check-ins choose student work and thinking to be shared during synchronous meetings with the class. This will encourage students to engage in the learning experiences and also provide scaffolding for students who may need support with completing some of the experiences.  **How to Use the Assessment Rubric**   1. The rubric is to be used throughout the learning experiences. There is no need for individual criteria or rubrics for each task. Students will use each task to further their understanding of the essential understandings identified in the rubric. Students will be demonstrating this through a variety of modalities. 2. As you collect evidence of students’ level of understanding, highlight or check off their progress on the rubric. You should notice your students move across the rows as their understanding develops throughout the experiences. Do not average your check marks or highlights. Students obtain their highest level of understanding. It does not matter where they start.   Step-by-step instructions for students:  See *Zoom Student Instructions* PowerPoint |
| APPENDIX (Printable Support Materials Including Assessment) |

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| **Report Card Category** | **Essential Understanding** | **Limited** | **Basic** | **Good** | **Very Good to Excellent** |
| **Math – Knowledge and Understanding** | **Comparisons of number as quantities can be expressed in a variety of ways.** | Matches equivalent fractions and percents. | Interprets the amount represented by fractions and percents. | Relates fractions and percents to contexts involving comparisons. | Chooses appropriate representations to communicate comparisons of quantities and measures. |
| **Math – Mental Math and Estimation** | **There are a variety of mental math strategies that are efficient and flexible for solving problems.** | Calculates to solve problems using paper and pencil only. | Describes a variety of mental math strategies to solve problems. | Applies a variety of mental math strategies. | Justifies the selection of a mental math strategy to solve problems in a variety of contexts. |
| **Math – Problem Solving** | **A variety of mathematical processes and strategies can be used to solve comparison problems.** | Copies a process or strategy that has been demonstrated. | Describes a process or strategy to solve comparison problems. | Initiates a process or strategy appropriate for solving comparison problems. | Chooses from a variety of strategies to efficiently and flexible solve comparison problems and makes modifications if needed. |
| **Science – Knowledge and Understanding** | **Technology was used to determine the distinct structure of the Earth’s layers.** | Names the layers of the Earth. | Describes the layers of the Earth. | Explains how technology was used to determine the characteristics of the Earth. | Evaluates the role of technology to support our understanding of the Earth’s composition. |

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| **ELA – Listening & Viewing** | **We interpret information and ideas about the world around us in forms other than oral and written language.** | Identifies methods of receiving information and ideas. | Discusses how information and ideas about the world around us are shared through forms other than oral and written language. | Summarizes information and ideas about the world around us from a variety of forms other than oral and written language. | Constructs ideas about the world around us using forms other than oral and written language. |
| **ELA – Speaking and Representing** | **We integrate information and ideas about the world around us in forms other than oral and written language.** | Identifies methods of expressing ideas. | Experiments with techniques to express ideas without using oral or written language. | Differentiates between different techniques to express ideas without oral and written language. | Integrates techniques to communicate ideas about the world around us without using oral and written language. |