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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: | Kindergarten |
| Main Subject: | Science |
| Big Idea: | Problem Solving, Critical Thinking, Play-Based Learning, 3D Shapes- Attributes, Measurement and Comparing , Design Process, Scientific Inquiry, Speaking Skills |
| Title: | TOWER BUILDING |
| Cluster: | Inquiry and Design Process |
| Duration: | 15–60 minutes |
| Materials: | Household Items |
| Short Description: | This is a STEAM (Science, Technology, Engineering, Arts, and Mathematics) project that can be adapted for both synchronous and asynchronous time. Students will experiment with household items and apply critical thinking strategies while participating in this play-based activity. |

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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) K-0-1b, K-0-1c, K-0-2b, K-0-3c, K-0-4a, K-0-4b, K-0-4c, K-0-5a, K-0-6c, K-0-7a, K-0-7b, K-0-8a, K-0-9a, K-0-9b, K-0-9c  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)  K.SS.1, K.SS.2  English Language Arts: [www.edu.gov.mb.ca/k12/cur/ela/index.html](http://www.edu.gov.mb.ca/k12/cur/ela/index.html) Language as Sense Making, Language as System, Language as Exploration and Design, Language as Power and Agency |

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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: | Alexandria Townsend, Larisa Moniz, Jennifer Jacques |

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| Learning Experiences and Assessment |
| Questions: Can you build a tower that is taller than you are without it falling over? |
| Teacher’s instructions:  This is a STEAM activity focused on problem solving and building. Students will be given instructions and left to experiment with supervision by parents/caregivers. A teacher example can be provided to help get students started (see below).  Assessment: Observations are recorded about students’ abilities to apply problem-solving techniques and self-reflect on their challenges, successes, and how they were able to make improvements to their original design.  Step-by-step instructions for students:  Have you ever seen a tower? Today, your job is to build the tallest tower you can using household materials! You can use whatever you want to build it (with your parents/caregivers’ permission). Some examples could be books, cereal boxes, toilet paper rolls, folded paper, blocks from your toy box, recyclables, or anything else you want to try! Can you make it as tall as you (or even taller than you) without it falling over?   1. Look at the pictures of [these towers](https://letstalkscience.ca/educational-resources/picture-collections/structures-statues-and-towers). What do you notice? What do you wonder? 2. With adult supervision, use your creative mind to find materials around your house to build! 3. Make sure you have some clear, open space for your building project so you can build your tower in a safe place. Please be careful not to hurt yourself or anyone else and not to break anything while you build. 4. Create your tower. As it gets taller, it might be wobbly. If it falls over, try again. Think about what changes you might need to make to your tower to help it balance. If it falls over again, keep trying! 5. Once you are done, please take a photo of yourself standing beside it. 6. Draw a picture of your tower. Write your name and any other words you might like to include on your picture. 7. Get ready to tell your teacher about what you did, using the student self-reflection questions. |

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| APPENDIX (Printable Support Materials Including Assessment) |
| Kindergarten: Student Self-Assessment.docx |

**Student Self-Assessment**



