

Lesson Name:	Tall Tower Construction Project	Date:	September 13 /07
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Goals: What skills & content will students understand / practise in science and other curriculum areas?

- Children will be placed into random groups of 4.
- Each group will be given one piece of masking tape (2 feet long) , 32 straws and one marble
- Groups will be given 40 minutes to create the tallest tower they can using the materials they have been supplied.
- The tower must be able to hold the marble within 3 inches of the top of the structure for a minimum of 1 minute
- Groups are not permitted to borrow straws or tape from other groups nor are they allowed to tape the marble to the structure.
- The towers must be free standing and can not be anchored in any way or supported by using tape or any other material.
- Groups members must cooperate with each other as this is to be a team effort
- The teacher will use a timer and once 40 minutes has passed all groups will be instructed to stop immediately at which point the teacher will time each group in sequence to assess whether their tower can hold their marble for 1 minute.
- The teacher will then measure every tower that achieved the 1 minute minimum to see who had the best design.
- Groups will additionally be assessed for cooperation, inclusion of all members and respectful treatment of it's members
- **This exercise is applicable to the GRADE 3 Science: Structures and Mechanisms – Stability, Grade 3 Language ORAL COMMUNICATION – Interactive Strategies 2.2 and has additional applications in the area of character education and LEARNING SKILL DEVELOPMENT i.e. COOPERATION**

“Evaluate” – Performance Task(s): How will students share their knowledge?

- After the task is completed the teacher will ask each group to discuss and reflect on the project for 10 minutes. Groups must appoint a spokesperson who will share the groups thoughts on the project:

Learning Experiences

How will kids build & communicate new knowledge?

“Engage” – Demonstrations, questions, building connections to kids’ experiences

- The Teacher will ask each group to share in sequence after 10 minutes has ended
- The teacher may ask the following questions:
 - What was difficult about this project?
 - What was easy about it?
 - What did you learn about group work?
 - What structures were strongest and why?
- Did the strongest structures use any specific shapes or patterns in their construction?

“Explore” – Hands on experience(s) with concept
<ul style="list-style-type: none">• Each group will be given one piece of masking tape (2 feet long) , 32 straws and one marble• Groups will be given 40 minutes to create the tallest tower they can using the materials they have been supplied.• The tower must be able to hold the marble within 3 inches of the top of the structure for a minimum of 1 minute
“Explain” – Discussion to connect activities to ideas or correct misunderstandings
<ul style="list-style-type: none">• We will discuss the value of cooperation and having different people with different perspectives working together on the same project
“Elaborate” – Activities that extend & apply idea to the larger world – field trips, role models, issues
<ul style="list-style-type: none">• Students will be asked if they could think of a real life situation where people have to work together and if they think the challenges and positives would eb the same or not and why?

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