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| **Course: TAG****Grade Level: 3rd Grade** | **Title of Unit: STEM Lesson 1: Marshmallow/Toothpick Challenge** |
| **Pacing:** 2 class periods |  |
| **Stage 1 - Desired Results** |  |
| **Understandings:**Students will understand and be able to define what the steps of the engineering design process are; SWBAT understand the expectations of the Maker Space | **Essential Questions:*** What is engineering?
* What are the steps of the Engineering Design Process?
* What is a MakerSpace?
* What is a constraint?
* What is a challenge?
 |
| **Knowledge:**Students will know…. | **Skills:**Students will be able to work with their teams to construct the tallest freestanding toothpick and marshmallow tower |
| **New Jersey State Standards / Common Core****(Note: Include reference to relevant standards in the Content Area as well as technology and 21st century life and careers.)** | StandardsWORK.PK-4.9.2.4 C.5, SCI.3-4.5.1.4.A.2, SCI.3-4.5.1.4.B.1, SCI.3-4.5.1.4.B.3, SCI.3-4.5.1.4.B.d |

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| **Stage 2-Assessment Evidence** |
| **Performance Tasks and other evidence:** |
| Teacher Observation Student ParticipationCompleted Challenge Brief “Test” of Challenge |
| **Stage 3- Learning Plan** |
| **Learning Activities:** Teachers will ask students if they remember the steps of the engineering design process.  Teachers will tell the students that they will be working on a Team Building STEM activity today.  Teachers will hand out to each team, the Challenge Brief along with materials list.  Students will discuss amongst themselves and assign roles for each member of the team.  The team member who is designated as the Materials person will gather the materials needed from the materials area of the Maker Space.  Students will then work together as a team to construct the tallest freestanding tower from 100 toothpicks and 2 cups of marshmallows.  Teachers will judge to see which group meets the criteria for this challenge. |
| **Materials**: Challenge Brief packet per group; 2 cups marshmallows and 100 toothpicks per group  |