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| **Course: TAG**  **Grade Level: 4th Grade** | **Title of Unit: STEM Lesson 3** |
| **Pacing:** 2 class periods |  |
| **Stage 1 - Desired Results** |  |
| **Understandings:** | **Essential Questions:**   * **What is a way to keep animals secure in a zoo?** |
| **Knowledge:**  Students will know…. | **Skills:**  Students will be able to work with a partner to build the best animal cage using materials chosen to hold the most weight as possible or the heaviest animal possible |
| **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.)** | SCI.3-5.1.b, SCI.3-5.1.c, SCI.3-5.2.a, SCI.3-5.3.c, SCI.3-4.5.1.4.A.2, SCI.3-4.5.1.4.B.1, SCI.4.4-PS3-4.6.1 |

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| **Stage 2-Assessment Evidence** |
| **Performance Tasks and other evidence:** |
| Teacher Observation  Student Participation  “Test” of completed product |
| **Stage 3- Learning Plan** |
| **Learning Activities:** Teachers will divide the students up into pairs.  Students will be told that for today's challenge they will be given specific materials only to use.  The students are reminded first by the teachers that they must work through the steps of the Engineering Design process before beginning their design/creation.  After all pairs are done creating and building their animal cages, they will test them out by attempting to hold the heaviest animal or the most weight without the cage collapsing.  Teachers will allow for student reflection and massive clean-up at the end of the class periods. |
| **Materials**: straws, tape, Styrofoam meat tray, pipe cleaners, plastic zoo animals, scissors; Dr. Seuss book, “If I Ran the Zoo” |