

STEM Lesson Plan

Project: Building a table

**Building a 4" recyclable table can sustain the weight of a bowl of cereal**

**Age Group: Pre-k (4-5 year old)**

**Implementation with students: N/A**

Objectives:

- a. Problem solving by elevating the space**
- b. Practice and exercise number measurement**
- c. Learning the theory behind the stability of a structure**

**Engineer process:**

- a. Engage**
- b. Design and create**
- c. Build**
- d. Refine**

Visual Arts Standards can be widely utilized while designing and implementing activities with preschool students. My plan is to achieve the teaching objectives by borrowing NASA Engineer Design Process while having visual Arts Standard embedded in all procedures, especially in Design, build and refine.

At the stage of Design and create, Visual Arts can help with engaging students in self-directed and creative making. Students at preschool age are developing concept of using graphic to express their ideas and feelings. Although their drawing may not demonstrate what they want to create or express in a precise manner, visual arts can help students to conceptualizing their thinking and ideas before proceeding to the building stage. Visual Arts can also offer a good extension to the project. Not only can students share and talk about their designs and creations before and after refining process, but also they can learn different interpretation and design of the same objects from different visual artists. I would love to present to the students various designs or paintings of table from different artists. I would like to raise the attention from students about relevant details and have opportunity for them to talk and discuss about the characteristics of form. In the meantime, showing different creations and sharing ideas with one another can encourage inclusion in the classroom, which is one of the crucial criteria in today's classroom setting in order to cultivate the creativities and confidence in students.