**Mars Farm**

**Lesson Thirteen: Presentation Preparation**

**Problem Statement:** Students must work together in teams to create a design a growing environment on Mars that will sustain three researchers for three years. In this lesson the children work together to prepare their oral presentation to a panel of “NASA” scientists.

**Learning Objectives:**

The student will develop their final powerpoint presentation using the template provided. The presentation will encompass a summary of their proposed solution and justification for design choices within the constraints of the problem statement.

**Lesson Standards (NGSS, CCSS, CTE):**

This lesson does not explicitly incorporate specific unit learning standards but the students will be able to practice the following 21st century skills:

* Science and Engineering Practices
  + Constructing Explanations and Designing Solutions
    - articulate an explanation
    - cite evidence to support explanation
    - describe connected reasoning
    - evaluate potential solutions
  + Obtaining, evaluating, and communicating information
    - communicate information in at least 2 different formats
    - use clear and effective communication skills
    - connect Disciplinary Core Ideas (DCI) and Cross Cutting Concepts (CCC)

**Materials**

* Powerpoint template for building final presentation
* Assessment rubric

**Lesson Preparation**

* Prep science notebooks (graph paper on one side; lined on right side).

**Time Required**: 45 minutes

**Lesson Components[[1]](#footnote-0):**

* Walk the students through the powerpoint template and assessment rubric, reiterating the most important criteria that their model needs to meet. (Note: Google slides, or a similar program may be used in place of PowerPoint if preferred.)
* Emphasize that each students needs to play a role in the presentation of the model.

Again, as with previous lessons, some groups might need more time for preparing and rehearsing the final preparation and activities should be extended as needed.

* Students should spend the final 15 minutes of the allotted class time rehearsing their presentation
* Students spend the final 1-2 minutes writing a reflection on their project with the following prompt:
  + How ready is your group to present during the next class?
  + What role will you play during your group’s presentation?

**Assessment:**

* Reflective writing sample (1 per student)
* Final powerpoint presentation ( 1 per group)

**Accommodations:**

* Teachers could allow submission of physical writing sample or electronic submissions.

1. The sub-sections of the procedure section (e.g., Understand the Problem, Explore the Problem) are from the Illinois Math and Science Academy’s PBL Teaching and Learning Template, however, the descriptions were developed by WABS and do not necessarily represent the views of IMSA. [↑](#footnote-ref-0)