**Lesson: Planning Your Power Checks**  Designed By: Julie Powell

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| **NGSS Standard:****MS.Human Impacts****MS-ESS3-3.** | **Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.** |

## ISTE Standard: 1. Creativity and Innovation

## 2. Communication and Collaboration

Objectives:

* Students will examine the school to find places where energy can be used more efficiently and places where energy is already being used conservatively.
* Students will work collaboratively to share the energy information within the team as well as with the school.
* Students will plan ways to save more energy in the school and encourage/reward those already using energy conservatively.

Materials:

Ipads (1 for each student)

Padlet set up for the class to post pictures

Warm-Up:

Students will share in small groups ways that energy might be wasted around a school and ways it might be used efficiently. Each groups shares out one example of each.

Activity:

School will be divided up into sections and each group will be assigned a different section of the school. Groups will go on a “scavenger hunt” to find examples of energy being used efficiently and non-efficiently. Students will take pictures of these example with the Ipads. When students return from their “scavenger hunt” they will post the pictures on the energy efficient padlet or “room for improvement” padlet including captions with their photos.

Divide class in half, half of the class will use the energy efficient pictures on padlet to work on “awards” on Illustrator or Photoshop to use for different energy efficient examples that will be displayed around the school wherever energy is being used efficiently to encourage others to be aware. The other half of the class will create an action plan with steps for helping the school become more energy efficient using the “room for improvement” padlet.

Action plan will be posted and shared with school and students will follow up every two weeks by doing power checks looking for energy being used efficiently to add pictures to the padlet.

Assessment:

Students will be graded based on the individual contribution to the overall project as well as their collaboration with classmates.

**POWER CHECKS ASSESSMENT RUBRIC**

Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_Points: \_\_\_\_\_\_\_/18

***SCORING:****3: Meets performance criteria consistently and independently
2: Meets performance criteria most of the time and with some teacher prompting
1: Has difficulty meeting performance criteria even with teacher prompting*

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| **PERFORMANCE CRITERIA** | **ASSESSMENT** |
| **Self-Evaluation** | **Peer Evaluation** | **Teacher Evaluation** |
| Stays focused on task. |  |  |  |
| Contributes a lot of effort, and encourages and supports the efforts of others in the group. |  |  |  |
| Provides useful ideas while participating in the group and discussion. |  |  |  |
| Actively looks for and suggests solutions to problems. |  |  |  |
| Performed all duties of assigned team role and contributed knowledge, opinions, and skills to share with the team. |  |  |  |
| Respectfully listens to, considers, and incorporates the ideas of others. |  |  |  |

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