**Lesson 9: Presentation**

**Problem Statement:** The problem is the PUD needs to invest money into alternative energy sources and needs suggestions for the future. This lesson ties into the problem because students must understand what options are going to be available in future years.

**Learning Objectives:**

Be able to incorporate the use of the visual elements and principles of design in the design of an engineered product.

Be able to justify and validate a problem solution using decision matrix

Be able to identify limitations in the design process and the problem solution and recommend possible improvements or caveats.

Be able to clearly justify and validate a selected solution path

**Materials:**

Grading rubric

PowerPoint, Google Slides, Prezi, or Poster Display from each group, pre-tested and ready to go.

Visual aids from each presenting group (physical objects or prototypes if any)

**Lesson Prep:**

Prepare energy transfer worksheet for audience

Make copies of Grading Rubric

**Time Required**:

1-2    50 minute class periods

**Grouping of students for instruction**:

Students are already grouped according to energy source.

**Procedure:**

*Presenters:* Students will present their alternative energy ‘pitch’ to the Snohomish PUD. They will make a recommendation for future investments using either a PowerPoint, Google Slides, Prezi or poster presentation.

*Audience:* Student in the audience will be given a sheet with the energy presentation titles. Students will be asked to make predictions about how energy will move through the system before each presentation and they will also be asked to write at least one question they have about the project to ask during the presentation. They will then listen to the presentations and share their questions after and have time to correct their energy transfers based off of the presentation.

*Teacher:* Grading presentations with the rubric, prompting audience for questions, asking questions of the presenters, etc.

**Assessment**: Presenting students will be graded using the rubric provided beforehand.

Audience will be assessed on their understanding of the transfer of energy through the systems proposed as well as their depth of knowledge demonstrated in their questions.

**Accommodations**: Provide energy transfers in the system ahead of time.