



Engineering 1

Grading Period 3

Power Objectives:

- Develop employability skills, leadership, and communication. (P.O. #1)
- Apply the elements and principles of design and compositional techniques to create works of art and visual layouts for both tactile and digital art forms. (P.O. #2)
- Apply knowledge and skills to produce print or digital products. (P.O. #3)
- Practice personal safety. (P.O. #5)

Academic Vocabulary:

- design process
- iteration
- technical drawing
- scale
- revision
- prototype
- model
- re-iteration
- teamwork
- collaboration
- communication
- prosthetic
- biomedical engineering

Engineering Design and Iteration

Enduring Understandings:

- Some materials may be strong in one area of testing and be weak in another.
- A structure may have strong design yet be weak because of the construction techniques.
- Accuracy in drawings is the most important concern.
- It is a valuable skill for a person to be able to understand, critique, and evaluate their own, and another person's, completed drawings.

Essential Questions:

- Which materials, natural or synthetic, are acceptable for building?
- How would you go about testing a material for strength if you did not have the necessary tools?
- How accurate can predictions of strength be for objects that are engineered, but not yet built?
- Why is it important for you to be able to understand and critique someone else's drawing as well as have someone so that to your drawing?
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