

Learning Targets / Success Criteria:

Unit: What is Engineering Design. Data Team: Exploratory

Priority Standard:	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.(AS.W.2)
Overarching Skills:	Utilize standard procedures to use and maintain an engineering notebook.
WALT:	Organize an engineering notebook.
Success Criteria:	I can...explain the purpose of an engineering notebook. I can...explain the purpose of an engineering portfolio. I can...explain the sections in my engineering notebook.

Priority Standard:	3.6-8.F - Students will develop an understanding of the relationships among technologies and the connections between technology and other fields of study.
Overarching Skills:	Describe engineering and explain how engineers participate in or contribute to the invention and innovation of products. Describe the relationship between science, technology, engineering, and math. Identify the differences between invention and innovation.
WALT:	Describe the differences and similarities among STEM fields.
Success Criteria:	I can...define engineering. I can...identify how engineered products and systems impact daily life. I can...distinguish between innovations and inventions. I can...indicate what types of engineers would be appropriate for a specific problem type.

WALT:	Investigate the invention and innovations of a technological artifact using internet resources.
Success Criteria:	I can...identify a technological artifact to investigate. I can...utilize resources to determine the origins, development and social impact of my chosen artifact.
WALT:	Effectively present information about the investigated artifact.
Success Criteria:	I can...present the information in an effective and sensible order. I can...clearly indicate the origins, development and social impact of my chosen artifact. I can...elicit and maintain the interest of my audience.

Priority Standard:	4.6-8.D - Students will develop an understanding of the cultural, social, economic, and political effects of technology.
Overarching Skills:	Define technology vs. science. Describe impacts that technology has had on society.
WALT:	Evaluate the impact different technologies have had on society.
Success Criteria:	I can...define and compare and contrast technology and science. I can...explain the positive and negative effects of the different technologies reviewed in the lesson. I can...differentiate the positive and negative effects of an assigned technology. I can...identify the inventions and innovations specific to various fields of engineering.

Priority Standard:	8.6-8 - Students will develop an understanding of the attributes of design.
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Overarching Skills:	Describe the design process and how it is used to aid in problem solving. Describe the elements of design. Recognize design criteria and constraints. Describe the purpose and importance of working in a team. Operate effectively as a member of a team to complete a design project.
WALT:	Explain the Design Process.
Success Criteria:	I can...describe the steps of the design process. I can...define and identify criteria and constraints. I can...explain the purpose of the design process. I can...explain how you could best contribute to a team.
WALT:	Describe the elements of design.
Success Criteria:	I can...identify objects that satisfy the different elements of design. I can...explain the role the elements of design played in a consumer choice I've made.

Priority Standard:	11.6-8 - Students will develop the abilities to apply the design process.
Overarching Skills:	Use the design process to solve a technical problem. Apply the elements of design to the design process. Explain a design brief and apply the concept when using the design process. Operate effectively as a member of a team to complete a design project. Use a decision matrix to select the best solution to a design problem.
WALT:	Successfully apply the design process to solve a presented problem.
Success Criteria:	I can...document my use of the design process, including the use of a decision matrix. I can...utilize the elements of design during the design process. I can...participate effectively as a team member during the design process.

