

CV Guarantee
Introduction to Engineering Design/9th Grade

Big Idea: Use of the design process to solve a problem understanding given constraints.			
Standard: NGSS MS-ETS1- Engineering Design: Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.		Timeline: Unit 1	
Key Vocabulary: <ul style="list-style-type: none"> • Engineering, Methodical, Classical Mechanics, Structural Design, Manufacturing, Design, Innovation, Quantitative, Specifications, Ideate, Prototype, CAD Models, Assembly Drawings, Manufacturing Plans, Bill of Materials, Maintenance Guide, Design Review, Iterate, Engineering Notebook 		Vocabulary Activities: <ul style="list-style-type: none"> • Extra credit Quizzes 	
Knowledge	Reasoning	Performance Skills	Product Examples
<ul style="list-style-type: none"> • I can be given a problem and use the design process to solve problem b understanding constraints given. 	<ul style="list-style-type: none"> • I can examine a problem and use the design process to solve the problem. 	<ul style="list-style-type: none"> • I can demonstrate how classical mechanics is used in the engineering process 	<ul style="list-style-type: none"> • I can correctly produce entries into their engineering notebook. • I can produce a prototype of a product based on constraints
Resources: <ul style="list-style-type: none"> • Unit Guide 			

- Paper
- Pencils
- Rulers
- Internet Access
- Dictionaries
- VEX Robotics Kit
- Computers with Autodesk Inventor
- Storage containers
- Online Resource

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