



PLTW Virtual Learning

7th and 8th Grade Design and Modeling

May 19, 2020



Lesson 31: Choose your own design process Day 2

Objective/Learning Target:

Students will use the steps in the engineering design process to design, model and test a solution to a problem.

Warm-Up:

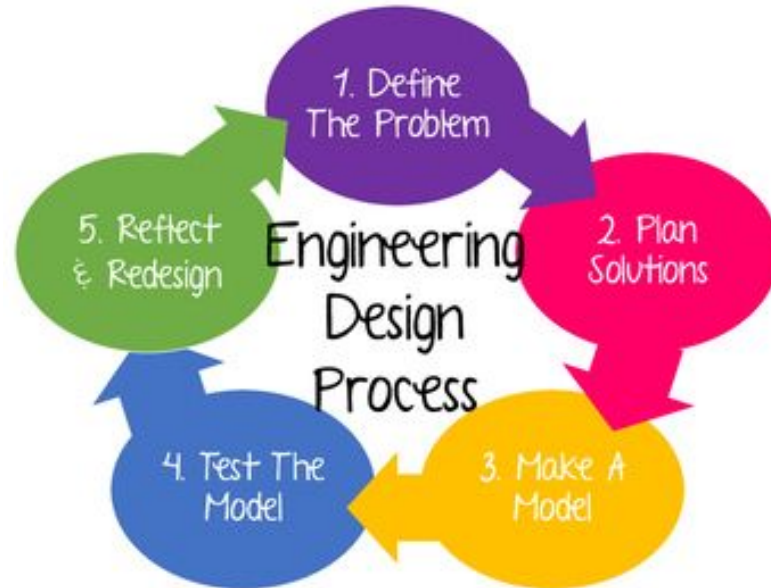
Grab some paper and a pencil.

Open the project of your choice on the Design Squad website.

[Design Squad Design Spinner](#)

Lesson Introduction/Background Information:

Today we begin the Engineering Design Process. Grab some paper to keep track of your progress.



Practice:

Design Brief

Designer:	
Problem Statement: What is the problem you are solving? Come up with a fun story!	
Design Statement:	Design, model, and test a _____.
Materials: List the materials you have available to you	
Constraints: List the design requirements	

Practice:

Brainstorm

Draw multiple sketches of design ideas. Make sure to use labels to help communicate your ideas.

Self-Assessment:

Which design is most effective? Fill in the Design Matrix to pick your optimal design.

	Ease of build	Do you have the necessary materials to build?	Does it meet all constraints?	Total
Sketch #1				
Sketch #2				
Sketch #3				

Rate each category on a scale of 1 (worst) to 5 (best).

Extend Your Learning/Continued Practice:

Show your design to the members in your house. Do they have any suggestions for you?