

Engineering Virtual Learning

HS Mechanical Drafting Design Lesson #8

April 15, 2020



Objective/Learning Target:

Students will Present and Demonstrate their "Launch It" machine to family members. (Project day 3 of 4)

Bell-work:

Watch this video and answer the question below:

https://www.youtube.com/watch?v=KEeSQvMCPLg

Suppose you are playing "corn hole" at a tailgate party and you are the grand champion. Would you say you displayed great accuracy or precision?

Predict how accurate or precise your "Launch It" machine will be.

Record this in Simple Machine, "Launch It!" activity in our engineers notebook.

Learning Practice:

Activity: You will use items that you find around your house to design and build a machine to throw a cotton ball or small paper wad as far as possible.

Monday you Brainstormed solutions to the challenge. You Recorded all your ideas with sketches in your engineer's notebook or on other paper. You Organized your data into a chart listing the pros and cons of your top 4 ideas and narrowed down to the best choice. Finally you drew an Assembly drawing and Parts drawings of your "Launch It" machine.

Tuesday you gathered your materials and built a prototype. You made any adjustments or revisions to your machine to solve problems encountered till you are ready to demonstrate your solution.

Today you will demonstrate your machine to your family. First, describe the initial problem, "how to throw a cotton ball with a simple machine" and tell them how you have solved that problem. Now demonstrate by using your machine to throw a cotton ball. Record your results and reflect on what went right and what could have gone better.

Check For Understanding:

Have your family critique your machine and offer ways to improve the design and function.

