

Name:

Due Date: September 16, 2016

College & Career Awareness  
Technology and Engineering, Skilled Technical Science Pathway  
Nature of Tech in Society

**Overview:** A rocket, as defined in Wikipedia, is a missile, spacecraft, aircraft or other vehicle that obtains thrust from a rocket engine. Most rocket engines carry propellants that are burned or combusted to give it thrust. A rocket moves forward by throwing this exhaust or burning gas backwards at a high speed. The earliest rockets date back to the 13<sup>th</sup> century in China when saltpeter, or gunpowder, was developed. Today, rockets carry payloads into space like our communication satellites.

**Essential questions:** What data would be most helpful to collect and analyze to discover the optimal rocket form of a straw rocket?

## Terms:

Force – strength or power exerted upon an object

Motion – A change in position of an object

Thrust – to drive with force

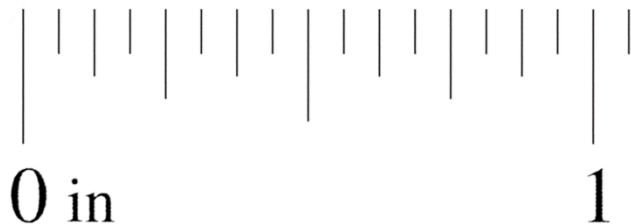
Center of gravity – the place in a system or body where the weight is evenly dispersed and all sides are balanced.

Hypothesis – an educated guess

## Checklist:

\_\_\_\_\_ Draw a line against this ruler that shows 13/16<sup>th</sup> of an inch.

↓ Start here



Monday

\_\_\_\_\_ Record input about collecting data

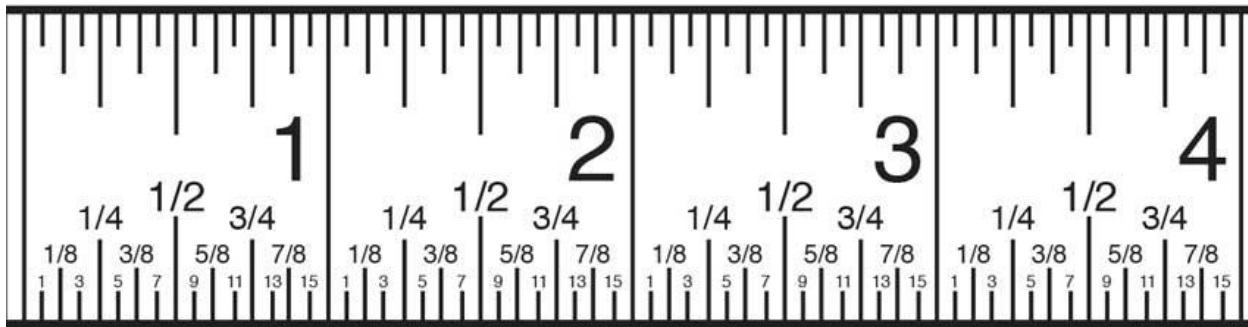
\_\_\_\_\_ Draw the Engineering process in your input (watch Prezi)

\_\_\_\_\_ Watch video <http://video.pitsco.com/default.aspx?vID=68&gID=-1> as a class

Wednesday

Draw a line that measures 2 and 7/16<sup>th</sup> of an inch

↓start here



\_\_\_\_\_ In teams of 2-3, create a straw rocket using the following materials only; straw, cardstock, tape

\_\_\_\_\_ Record a table in your output that contains the data that your team finding most useful. There will need to be at least 3 columns

	Data point	Data point	Data point
Trial 1			
Trial 2			
Trial 3			

\_\_\_\_\_ Only change ONE data point per trial. You must show Ms. Emily your chart before each launch.

Friday

\_\_\_\_\_ Record input about Nontraditional careers (What barriers stand in your way to the career of your choice?)

\_\_\_\_\_ In your output record 4 examples of non traditional careers for a man and 4 for women.

Draw a line that measures 283 mm long.