

I have used the measurement strand as an example because I believe it is one of the most important skills an elementary student will learn in Math and Science. Other strands include The Engineering Design Process, Failure and Resilience, Working Collaboratively, Feedback, and Safety and Responsibility.

Strand: Measurement & Data-based Decision-Making <i>As defined as: measurement skills (linear, mass, volume, temperature, time, and force where applicable), recording data (in charts, tables, and graphs), and using data to inform changes and decision-making</i>				
By the end of the year, we expect students to be able to...				
Kindergarten	1st Grade	2nd Grade	3rd Grade	4th Grade
- count items to measure (nonstandard units) - determine if a project has failed or succeeded - make changes based on results	- count items to measure (nonstandard units) - determine if a project has failed or succeeded - make changes based on results	- measure to the nearest inch, to the nearest gram or ounce, and in half-cups, and nearest second.	- measure to the nearest $\frac{1}{4}$ inch, cm, the nearest gram, in quarter-cups, to the nearest degree C or F, the nearest second.	-measure to the nearest $\frac{1}{8}$ inch, mm, gram, $\frac{1}{8}$ cup, nearest degree, and in milliseconds.

This is one of the first challenges students will engage with next year. It is grounded in a common activity and has components that will be referenced throughout the year as students engage in projects of increasing complexity. Other projects include the Solar Oven, the Hurricane House Challenge, and the Hot Wheels Challenge.

August 19th is Orville Wright's birthday -- an early inventor of the modern airplane -- and kicks off National Aviation Week, a week to celebrate all things that fly! We know most of you have made and flown a paper airplane, but have you launched one?

Your Challenge:
Create a paper airplane launcher.

Materials and tools:
We have provided:

- Index cards
- Popsicle Sticks
- paper clips
- Rubber Bands
- Paper

-Tape

-Ruler/Measuring tape

Not Provided:

-feel free to use whatever you have at home!

Criteria (*These are rules that you must follow to complete this challenge*):

-Your launcher must be able to fly your plane at least 5 inches

-Your hand may not contact the airplane to move it forward