STEM/STEAM/Maker Check

Is your Classroom or Maker Space True?

True = Happier Teachers & Successful, Inspired, Engaged Students.

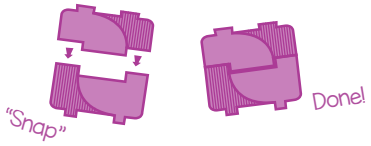
False

Cookie-Cutter Creations

Start-to-finish instructions or restrictive materials mean most projects turn out almost exactly the same.

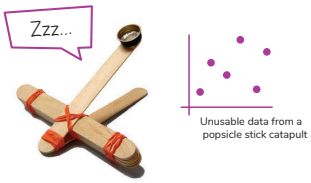
Assembly

Projects are completed with little-to-no understanding of the math, science or engineering that makes them work.



Blind Design

Data is not used to evaluate or engineer designs, nor is the scientific method. Construction materials may not allow for precise or accurate (useable) data.



Product-Driven

Projects are selected and driven by the novelty of the finished product (what can be shown off).

Out-of-Alignment

Projects offer few curricular connections or standards alignment. They often serve as a distraction from academic achievement.

Rear-Ended

Once built, students are "done". Attention spans are short, maker spacers & classroom feel unused or unpopular.

Arts-n-Crafts

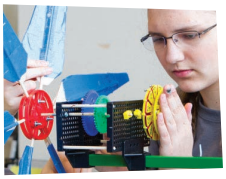
Projects focus mainly on aesthetics (decorations).

True

Design & Engineering

Projects are truly unique; evolving with student understanding and each step of the design and engineering process.

Innovation



Projects include labs and processes that grow student understanding (math, science, engineering) to a level where they can deliberately create something new.

Data-Driven Design

Data is used to evaluate and engineer designs. Construction methods allow designs to have consistent and precise (useable) data. Students now see how and why the concepts are used.

Process Driven

Projects are selected, and driven by, what kids get out of it (experience, knowledge, inspiration).

In-Alignment

Projects are curricular and standards-aligned. They enable students to apply academic knowledge at higher cognitive domains.

Never-Ending

Students use every available minute and resource, continuing to evolve their designs to achieve the desired outcome.

Comprehensive

Projects are designed with functional, aesthetic and other considerations.