

STEM/STEAM/MAKER Game

Is Your Classroom or Maker Space True?

True = Happier Teachers & Successful, Inspired, Engaged Students



Are these Qualities of True STEM/STEAM/Maker Space?

True



Flawed



Cookie-Cutter Creations

Start-to-finish instructions or restrictive materials ensure projects turn out essentially the same.



Data-Driven Design

Data is used to evaluate and engineer designs. Construction methods allow designs to have consistent and precise (usable) data. Students have "now I get it" moments when they see how and why the concepts are used.



Useable data from a launcher made from TeacherGeek parts

A-ha!
Now I get it!



In-Alignment

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

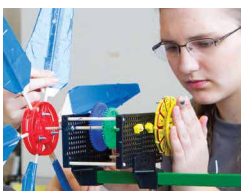
Product Driven

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

Process Driven

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

Innovation



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

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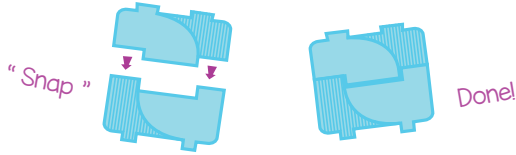
True

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Assembly

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



Never-Ending

Students use every available minute, continuing to evolve their designs.



Out-of-Alignment

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

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 (usable) data.



Design & Engineering

Projects turn out unique, evolving through the design and engineering process.



Rear-Ended

Once built, students are "done". Attention spans are short, maker spaces + classrooms feel "un-used" or unpopular.

Now
What?

