



TeacherGeek solves the largest and most frustrating issues when engineering with kids.

Iterative Design

Designs should evolve with understanding. Understanding should evolve through experimentation and by evolving designs.



Assemble & Decorate



Now What ?

Problem:

We love recycling bin and craft materials, but... projects made purely from recycling bin/craft material do not allow engineered designs to be easily created or modified. Students are "done" after one try, resulting in engineering design and classroom management problems.

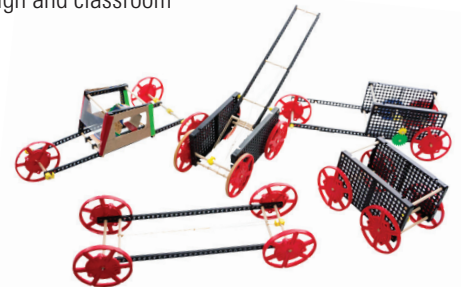
Solution:

TeacherGeek, along with recycling bin materials, allows students to build real working projects where they can learn and grow through experimentation, redesign and even failure. Designs are easily created and modified. There is no perfect design, so students are never done. Students learn more from their 2nd, 3rd, 4th designs than they did from the 1st.

Design / Redesign

Evaluate

Test



Data-Driven Design

Science & Engineering require data to grow understanding and evolve designs.

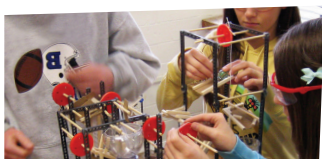
Problem:

Projects made from recycling bin and craft materials generally lack precision, accuracy and the capacity to isolate variables. Without data, students question why they need to learn the science or math (because it doesn't work on their projects). Projects turn out as more arts-n-crafts than engineering/science.



Solution:

With TeacherGeek, the data works. You get "aha", "I need that formula" and "now I get it" moments. Students see the direct relationship between design changes (variables changed) and the resulting performance. This evidence sparks intrigue, leading them to make more design changes while applying/learning mathematical and scientific concepts.



Let's try my idea



Wow! It worked!!!



Just as I calculated.



Maybe if I adjust...

Engineering for All Ages!

Kindergarten

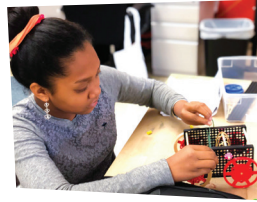


Ages 6-12 w/
adult supervision

Elementary



Middle



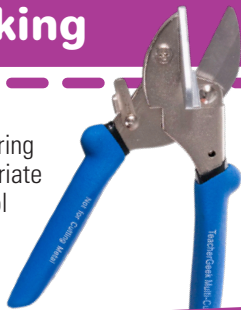
Ages 13-18
& beyond

High School



Real Making

TeacherGeek projects are real engineering activities that require real, age-appropriate tools. TeacherGeek offers an entire tool set to get students making with ease and comfort!



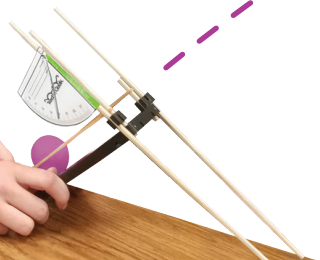
Affordability

TeacherGeek bridges the gap between recycling bin materials and expensive snap-together toys. Activity kits are so affordable that students can often take projects home with them!



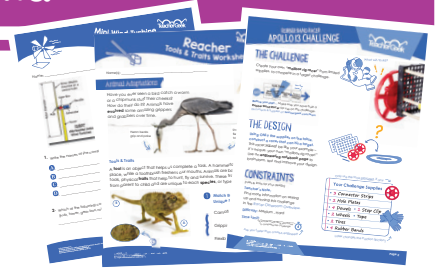
Good for Brains

Research shows that neuroactivity when students are on computers is often fractional as compared to when they are kinesthetically involved. TeacherGeek stimulates otherwise neglected intelligences, taking students to higher cognitive domains as they aim to innovate.



Free Curricula

TeacherGeek activities are backed by downloadable, editable (Microsoft Word, PDF), ever-growing labs, engineering challenges and other supporting resources.



Standards/School Alignment

STEM STEAM MAKER

TeacherGeek takes students from "why do we have to learn this" or "this is boring" to "I get it" and "aha"! Teachers are left astonished at classwide understanding and retention.

Student Directed, Inquiry Based



TeacherGeek documents allow students to be self-directed, leaving those in charge free to step aside and become facilitators. And because there's no perfect design, students are never done making!

TeacherGeek offers activities, tools & even an entire Maker Cart! Find out more at **TeacherGeek.com!**
Send us an email or give us a call:
sales@teachergeek.com 888-433-5345

STEM/STEAM/Maker Check

Is your Classroom or Maker Space True?

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

False 



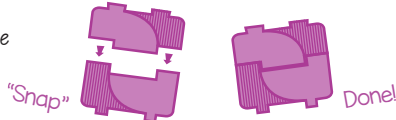
Cookie-Cutter Creations

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**

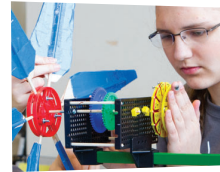
Design & Engineering



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 and different.

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.