

STEM Edventure on *Discover Engineering*

By Kim Turner

Hello! I'm Kim Turner, an elementary educator with over 30 years of experience specializing in gifted and STEM education. In 2017, I had the incredible opportunity to win a \$10,000 STEM grant. With it, I implemented a comprehensive STEM program at my school.

As I delved into researching STEM programming, I came across PCS Edventures materials, which stood out for their combination of rigor and ease of implementation. Among the first products I purchased was *Discover Engineering*, which remains one of my all-time favorites from PCS Edventure.

Discover Engineering is part of the Discover Collection, a series designed to allow learners to work independently at their own pace through a self-guided curriculum. Each lesson focuses on a different engineering concept, such as pulleys, worm gears, and power transfers.

The lesson format begins with important questions such as, "*What is the engineering background of this concept?*" and "*How has this concept changed the world?*"

In every project, the kids were fully immersed in engineering design thinking and absolutely relished building each project. One standout project was the gear trains. My budding engineers constructed a mobile vehicle, adjusting input and output ratios to control speed. They also experimented with modifying the car's design to enhance its speed. It was so much to watch kids experimenting and trying different solutions.

With each project, I watched how kids grew in confidence in their problem solving and critical thinking skills.

Some highlights of *Discover Engineering* include:

- The rigor of each design project
- Programming that enables learners to work independently
- Easy to follow 3D color build plans
- 25+ hours of programming
- Sturdy materials that have withstood multiple years of construction and deconstruction.

Discover Engineering sparks instant learner engagement, connects learning to the real world, and provides ample opportunities for learners to problem-solve through the engineering design process.

This product is excellent for both upper elementary and middle school learners. I have used it in the gifted classroom, summer school and before school enrichment clubs. It's consistently a top choice every year.

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