

# Building an Engineering Mindset from the Start

How K–8 students at STEM Launch discover what they can do—and where their education can take them.

## What do you want to be when you grow up?

- Firefighter? Drone pilot?  
Veterinarian? Geophysicist? Orthotist?

Students at [STEM Launch](#), a K–8 magnet school in Thornton, CO, are encouraged not just to dream of what they will do one day, but to build future-forward skills and uncover career pathways they may never have imagined.

Because if they can see it, they can be it.

Every day, students engage in high-quality instruction and authentic, hands-on learning powered by [Project Lead The Way \(PLTW\)](#) curriculum. As they design, test, and refine ideas, each student nurtures skills that prepare them for high school, college, and workforce pathways.

And when students move on from STEM Launch, principal Tracey Calderón and former principal Kate Klaver can see their students have the confidence and skills to succeed.

“We really want to best prepare our kids for high school and the future,” Klaver says. “It’s important that we have strategic alignment. Knowing that our feeder high school has three STEM pathways (Biomedical Sciences, Engineering, and Computer Information Systems), and uses PLTW for those pathways, it made sense for us to use it so that we have a shared language and we are progressing over time in a strategic way.”

From kindergarten through eighth grade, students face challenges and find solutions.



### Grades K–5

- Engineering design process
- Career awareness



### Grades 6–8

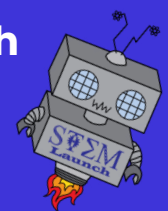
- Skills that build confidence
- Career exploration

### PLTW School Spotlight

## STEM Launch

### Grades K–8

An urban magnet school in Thornton, CO



#### School District

Adams 12 Five Star Schools



#### Student Population

677 enrolled

- Hispanic: 73.3%
- White: 19.8%
- 2+ Races: 4.1%
- Asian: 1.6%
- Black: 0.7%
- American Indian/  
Alaskan Native: 0.4%



#### Free/Reduced-Price Lunch

78.8% are eligible



#### Using PLTW Since

2014

# Preparing for the Future, Yesterday

While many districts are just starting to explore career and technical education (CTE) programs, this real-world thinking has been deeply ingrained in the Adams 12 Five Star School District for years. STEM Launch is one of three sister STEM schools in the district, alongside Northglenn High School and STEM Lab. STEM Launch and Northglenn both power their engineering experiences with PLTW, while STEM Lab uses its own engineering curriculum.

Across all classes and extracurriculars in every grade level at STEM Launch, PLTW helps students develop an engineering mindset.

By scaling STEM curriculum across the district, students can build critical skills over time.

“One of the clearest signs our PLTW investment is working is what happens after students leave us. We see them choosing to continue in a STEM pathway at Northglenn, or pursuing other competitive programs at area high schools. PLTW helps students see themselves as capable learners, problem-solvers, and innovators—and many carry those skills into high school and beyond.”

— Tracey Calderón, Principal



# Setting **Goals**, Achieving **Outcomes**

Seamless scalability was one factor that led to the use of PLTW at STEM Launch, but the solution stood out from other engineering curricula in many other ways. Ultimately, the school chose PLTW because it covers multiple goals.



## Educator Support

**Goal:** Enable teachers to integrate engineering into all subject areas

**Solution:** Provide a complete solution that's approachable to teach



[Watch the Video](#)



## Active, Engaged Learning

**Goal:** Use education to create value beyond the classroom

**Solution:** Apply PLTW content to solve problems in the community

**Medical Detectives**  
Grades 6–8



Students partner with the University of Colorado to collect medical data and diagnose diseases.

**KidWind Challenge**  
National Wind Turbine Competition



In 2026, STEM Launch students practically swept the podium with designs created using knowledge and skills from PLTW classes.



## Cross-Curricular Connections

**Goal:** Show the “why” behind math, science, and ELA

**Solution:** Apply real-world learning by adding PLTW across subjects



[PLTW] gives students a conceptual understanding of that flat white piece of paper that they are trying so hard to understand. When they've had to apply it and build with it and put their hands on it, there's just a light bulb that goes, 'I get it!'

— Tracey Calderón, Principal



## Durable Skills and Confidence

**Goal:** Foster resilience, problem-solving, and persistence

**Solution:** Design, test, and improve solutions in PLTW classes



We can't go wrong with those skills we're building—especially the failure piece. Students know they're not going to get it right away. It really is open-ended and truly dependent on their research and problem solving, so we get a lot more creativity and innovation through that."

— Kate Klaver, Former Principal



## Accessibility and Reach

**Goal:** Engage all students at a high cognitive level

**Solution:** Utilize Spanish transcreations included in PLTW



**73.3%** At STEM Launch, 73.3% of students are Hispanic and 1/3 are bilingual.

# Starting Your Own **PLTW** Program



Whether you're adding engineering in multiple grades or expanding an existing STEM program, Klaver and Calderón encourage you to do what they ask of their students every day: Get your hands dirty.

"Just try it out," Calderón says. "If you're unsure, or if you're not sure you have the budget right now, pick a class as an elective. Just watch how it takes off. Watch how your kids are excited about it. Watch how your teachers are excited about it. After they've done it for a year, they're going to be coming to you and asking, 'Hey, can we get this unit? Can we get this module?' And they're going to want to expand it."



See how [PLTW helps districts build a complete PreK–12 STEM and CTE ecosystem.](#)

PLTW's flexible PreK–12 STEM and CTE pathways promise to engage students in real-world problem solving that makes learning fun today, while building technical and professional skills for the future. Programs are continually updated to ensure learning experiences remain relevant and engaging as student interests, state standards, industry needs, and career expectations shift.

**//** PLTW evolves with us and it evolves for us sometimes, and it continues to capture the imagination of both teachers and students. I can't imagine running engineering without it now."

— Tracey Calderón, Principal