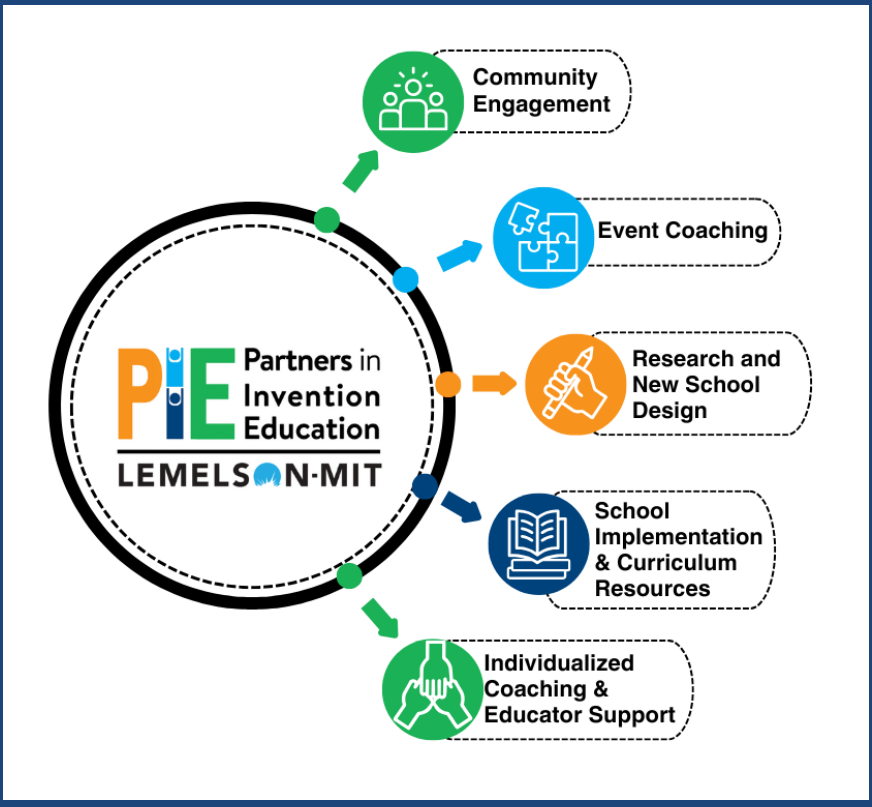
2025
Partners in Invention Education Cohort At-A-Glance



Partners in Invention Education (PiE) is a membership program for K-14 educators and administrators that focuses on increasing the number of inventors and entrepreneurs from diverse backgrounds by building strong pathways to invention. In 2024, over 4,000 students and over 400 educators were impacted by The Lemelson-MIT program.

This guide will introduce you to our PiE members and describe how we work together to determine the best course of action for their educators and students. Examples of how we might work with you are illustrated in the graphic above.

SILVER

Cordova High School

Sacramento, CA

Lemelson-MIT (LMIT) is supporting Cordova High School with a Silver-level PiE membership for the 2024-2025 school year. Cordova High School is a comprehensive secondary school offering a wide range of academic programs and extracurricular activities. With a focus on student success and engagement, the school provides a supportive learning environment for students to thrive. From its International Baccalaureate program to its Career Technical Education offerings, Cordova High School aims to prepare students for college and career readiness.

We are working with Faith Caplan, Engineering Lead Teacher for grades 10-12, as she integrates our curriculum into her courses with the goal of the students entering their designs into the California Invention Convention.

PiE members have access to curriculum that engages students in all grades.

DEMOGRAPHICS	
Hispanic	40.5%
White Non-Hispanic	30%
Unknown	9.7%
Asian	7.7%
African-American	8.8%
Filipino	2.2%
Multi-Ethnicity	8%
American Indian/ Alaskan Native	0.3%
Pacific Islander	1.8%
Female	49%
Male	51%
Non-Binary	0.1%
Free/reduced lunch	27.3%
English language Learners	20.8%
Foster Youth	0.5%
Homeless	6.1%
Migrant	0%
Socioeconomically Disadvantaged	71.1%
Students with Disabilities	16.9%

GOLD

Modesto Junior College

Modesto, CA

This is LMIT's fourth year working with Modesto Junior College (MJC) as a Gold-level PiE member. Modesto Junior College is a community college located in the California Central Valley. As of summer 2024, 24,803 students were enrolled at MJC.

In the spring of 2024, LMIT worked with MJC to organize and provide invention education professional development for K-12 educators on the MJC campus. The goal of the teacher training was to train teachers to implement LMIT's invention process with their students. MJC then hosted a regional Invention Convention with the guidance and support of LMIT.

In the 2024-2025 PiE year, LMIT will be supporting MJC as they work with Vanguard Aspire Charter school to establish an Ag-tech pathway. Instructors at Vanguard Aspire Charter school will be drawing on the content from our *Inventing Smart Solutions* curriculum.

DEMOGRAPHICS	
Hispanic	54.2%
White Non-Hispanic	32.1%
Unknown	9.7%
Asian	5.7%
African-American	3.4%
Filipino	1.5%
Multi-Ethnicity	0.1%
American Indian/ Alaskan Native	0.6%
Pacific Islander	0.1%

At right: MJC educators take part in professional development provided by LMIT; above: Prize-winning MJC students at an Innovation Showcase.

GOLD

Rio Hondo College

Whittier, CA

"We've had an incredible experience with Lemelson-MIT and have seen it reflected in our students."

Eric Caesar, Professor, Rio Hondo College

Rio Hondo College is a two-year college outside of Los Angeles. Rio Hondo enrolls approximately 20,000 students per semester. As the chart shows, the student body reflects the diversity of the surrounding communities. Rio Hondo is located in a dynamic urban and suburban area which also includes commercial, industrial, educational institutions, and enterprises.

DEMOGRAPHICS	
Hispanic	67.2%
White Non-Hispanic	10.2%
Unknown	9.7%
Asian	8.1%
African-American	2.2%
Filipino	1.4%
Multi-Ethnicity	0.8%
American Indian/ Alaskan Native	0.2%
Pacific Islander	0.1%

LMIT has worked with Rio Hondo for the past three years. Our work with Rio Hondo is funded by an annual Gold-level PiE membership written into a 5-year Title 5 Hispanic Serving Institution grant. LMIT supports Rio Hondo through facilitating faculty professional development workshops, assisting faculty as they develop courses focused on invention education and social entrepreneurship using our curriculum. LMIT has worked with faculty as they develop sustainable plans to recruit and train new faculty. LMIT staff also co-led the Rio Hondo first annual summer bridge program on campus in Whittier. With the support of LMIT, Rio Hondo has currently developed two courses which are CSU transferable along with a Certificate of Achievement.

A team of inventors at Rio Hondo College presenting their prototype.

GOLD

Sacramento State University

Sacramento, CA

"As inventors, students take ownership of their work and their futures by building skills and knowledge to protect their intellectual property."

Chris Rogers, Professor, Sacramento State University

Sacramento State University is a four-year university which LMIT supports through a Gold-level PiE membership. The student body demographics at right include both undergraduate and graduate students.

LMIT works with faculty members Chris Rogers, Professor of Sociology; Azizi Penn, Professor of Engineering; and Cameron Law, Executive Director of the Innovation and Entrepreneurship Center to integrate an invention education course that bridges multiple departments across the university together. Currently, we work closely with faculty in the sociology, computer science, and engineering departments to create a transdisciplinary course that emphasizes discovering problems in the fields of health, sustainability and transportation and developing solutions that will contribute to the betterment of society. Chris Rogers is using elements of our *Inventing Smart Solutions* curriculum and curriculum materials created for Cambridge's Mayor's Summer Youth Program and Leaders Inventing their Futures Together program to build out their invention courses. With the invention courses, Sacramento State aims to enhance STEM capabilities (i.e., technical skills and science, engineering, and math that align with the physical prototype), empathy, and success of all students, including those in Computer Science, Engineering and Social Science degree paths who are likely to enter science and engineering fields.

DEMOGRAPHICS	
Hispanic	37.6%
White Non-Hispanic	23.7%
Unknown	0%
Asian	19.8%
African-American	6.31%
Multi-Ethnicity	5.69%
American Indian/ Alaskan Native	0.277%
Pacific Islander	0.946%.

Students ideating as part of the *Inventing Smart Solutions* course.

GOLD

Stanislaus State University

Turlock, CA

Stanislaus State University sits in the middle of Central California, and has many agriculture programs. We will be supporting Stanislaus State by bolstering the landscape of K-12 programming for students and teachers in the region, as they aim to become a STEM leader in the Central Valley. From recommending several teacher and student speakers for their STEM summit on March 1, 2025, to supporting an alternative spring break maker-space program for 4th and 5th graders in April, to providing curriculum and coaching for teachers and students during summer 2025, PiE will help Stanislaus State grow their regional capacity for pK-12 invention education. In addition, we will be thought partners in the expansion of their Fab Lab and, ultimately, collaborate with their College of Education to build opportunities for teacher credentialing in invention education.

DEMOGRAPHICS	
Hispanic	57.2%
White Non-Hispanic	20.3%
Unknown	4.5%
Asian	8.8%
Multi-Ethnicity	2.9%
Non-resident Alien	3.7%

Stanislaus State students enjoy the California weather between classes.

GOLD

Stockton Unified School District

Stockton, CA

Stockton Unified School District (SUSD) joined in 2024-2025 as a Gold-level PiE member. SUSD is a diverse district located in the Central Valley of California. SUSD contains 55 schools and 36,202 students. The district's minority enrollment is nearly 100%.

LMIT staff works with the district STEM Coordinator as they develop a K-12 invention education pathway in the district. SUSD has selected to use their individualized support hours to train and coach 12 teachers in grades 6-12 on how to facilitate and implement our curriculum. The ultimate goal is for students to enter their inventions into the California Invention Convention.

Stockton Students in attendendce at the Superintendent's Student Advisory Meeting.

DEMOGRAPHICS	
Hispanic	68.9%
White Non-Hispanic	4.4%
Unknown	0%
Asian or Asian/ Pacific Islander	12.7%
African-American	9.2%
Filipino	1.4%
Multi-Ethnicity	3.3%
American Indian/ Alaskan Native	0.8%
Pacific Islander	0.6%
Female	48%
Male	52%
Free/reduced lunch	62.1%
English language Learners	26.9%
Socioeconomically Disadvantaged	62.1%

GOLD

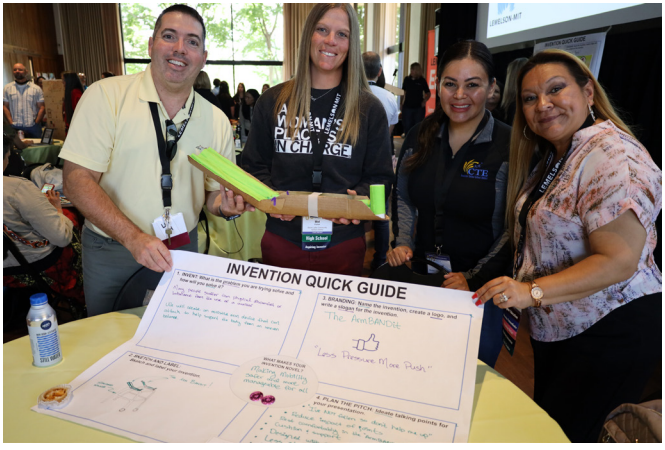
Storm Lake Community Schools

Storm Lake, IA

Storm Lake joins the 2024-2025 PiE cohort as a Gold-level member. Storm Lake is a small district in rural northwest Iowa made up of five schools serving 2,869 students. Over 85% of Storm Lake students are BIPOC.

LMIT will support Storm Lake as they work to integrate invention education into K-12 classrooms across the district. Storm Lake will receive coaching and support for teachers implementing our JV InvenTeam guides. LMIT will also be supporting educators as they design a trimester-long high school invention course. At the elementary level, Storm Lake will implement a variety of LMIT's curricula resources including *Light Up Kicks* and *Invention Adventures.*

DEMOGRAPHICS	
Hispanic	52.5%
White Non-Hispanic	13.8%
Unknown	0%
Asian or Asian/ Pacific Islander	16.2%
African-American	5.9%
Filipino	1.4%
Multi-Ethnicity	1.8%
American Indian/ Alaskan Native	0.2%
Pacific Islander	9.4%
Female	49%
Male	51%
Free/reduced lunch	39.4%
English language Learners	26.9%



Attendees at LMIT's Summer Professional Development Workshop taking part in an Invention Sprint.

GOLD

Fayette County Public Schools

Lexington, KY

The PiE team will work with Fayette County Public Schools' Chief Innovation Officer and industry liaison as they design The Hub for Innovative Learning and Leadership (the HILL), a new Career Technical Education (CTE) high school. LMIT will provide thought partnership, professional development, and curricula in an effort to shift the way CTE education is approached.

Located in the heart of downtown Lexington, the HILL's goal is to change the way CTE is approached. The Hill will open in fall of 2025.

DEMOGRAPHICS	
Hispanic	13.5%
White Non-Hispanic	43.6%
Asian	6.6%
African-American	29.7%
Multi-Ethnicity	6.1%
American Indian/ Alaskan Native	0.3%
Pacific Islander	0.1%.
Female	49%
Male	51%
Free or reduced lunch	51%
English language Learners	7.4%

Artist's rendering of the HILL

SILVER

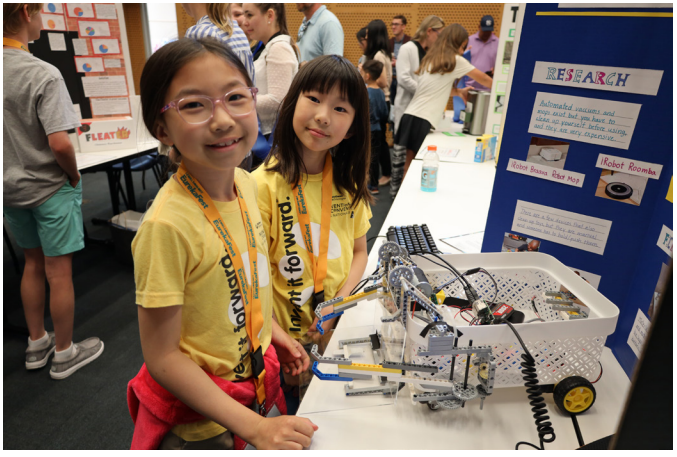
New Covenant School

Lexington, MA

New Covenant is a PreK-5 Christian day school. Through their Daniel Model, they ground students in godly wisdom and love, preparing them for a life of learning, leadership, and service. Incorporated within their biblically oriented curriculum are programs that inspire creativity and curiosity through STEM, Computer & Digital Literacy, Visual Arts, Music & Performing Arts, and Physical Education.

We are currently working with faculty to support their participation in the Connecticut Invention Convention in the spring of 2025 and to map-out a plan for the 2025-2026 school year which will include a framework for grades K-5. The early grades will get a taste of invention education via LMIT's series of *InventNow* invention projects, 3rd grade will do *Light Up Kicks*, 4th grade will explore *Inventing with Empathy/Invention Adventures*, and 5th grade will prepare to participate in Invention Convention.

DEMOGRAPHICS	
Hispanic	67.2%
White Non-Hispanic	10.2%
Unknown	9.7%
Asian	8.1%
African-American	2.2%
Filipino	1.4%
Multi-Ethnicity	0.8%
American Indian/ Alaskan Native	0.2%
Pacific Islander	0.1%.



Invention Convention winners from New Covenant School showcase their invention at EurekaFest.

GOLD

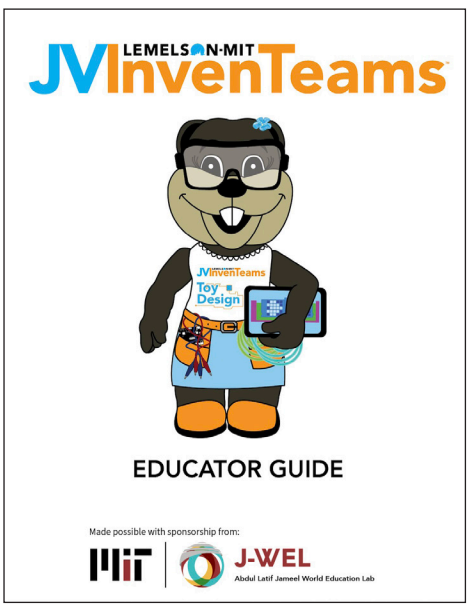
Anne Arundel County Public Schools

Anne Arundel, MD

Anne Arundel County Public Schools is joining the 2024-2025 PiE Cohort as a Gold-level member. The district is made up of 126 schools and serves over 83,163 students. The minority enrollment in Anne Arundel is 50% and 27.3% of students are economically disadvantaged.

LMIT will work with Anne Arundel educators as they implement invention education in targeted K-12 schools. We will also work with the STEM High School Teacher Specialist and educators from three high schools across the district as they draw on curricula resources from the *Inventing Smart Solutions* content library to enhance their STEM capstone experience. In addition, LMIT will support a cohort of teachers piloting our Toy Design curriculum, as well as teachers applying an invention lens to their Nanotechnology and Materials Science STEM Pathway.

DEMOGRAPHICS	
Hispanic	18.9%
White Non-Hispanic	48.7%
Unknown	9.7%
Asian	3.9%
African-American	21.7%
Multi-Ethnicity	6.3%
American Indian/ Alaskan Native	0.3%
Pacific Islander	0.2%
Female	49%
Male	51%
Free/reduced lunch	27.3%
English language Learners	8.1%



A cohort of Anne Arundel teachers will be piloting LMIT's Toy Design curriculum.

Inventing Smart Solutions

LMIT has three educators piloting our high school *Inventing Smart Solutions* (ISS) course this year.

David Bayne at Pioneer Valley High School, Woodland, CA
The Pioneer Valley High School is comprised of 68.2% Hispanic, 17.4% White, 8.4% Asian, 3.4% two or more races, 1.4% Black, 0.4% American Indian/Alaska Native, and 0.4% Native Hawaiian/Pacific Islander; 71% of the students are economically disadvantaged.

David is incorporating ISS into his course "Making Your Mark: Connecting and Making with Technology." The course includes python programming, as his class includes elements of CS. He is using ISS as a capstone for his students.

Edna Losa at Sylmar Biotech Magnet, Sylmar, CA
Sylmar Biotech Health and Engineering Magnet is one out of 183 high schools in the Los Angeles Unified School District, where 91% of the students are economically disadvantaged. The student body is predominantly Hispanic or Latinx.

As a former InvenTeam teacher, Edna incorporates ISS in her engineering courses at Sylmar.

Kevin Warfield at Greenbriar East High School, Greenbriar, WV
The student body at Greenbriar East is comprised of 89.4% White, 4.2% Black, 2.8% Hispanic, 2.8% two or more races, 0.6% Asian, 0.1% American Indian/Alaska Native, and 0.1% Native Hawaiian/Pacific Islander.

Kevin is incorporating ISS into his Engineering Course. He incorporates the essential skills of Project Lead the Way's principles of engineering which includes materials, simple machines, electricity, and basic coding.

LMIT meets bi-weekly to check in with the educators and they give updates on where they are in the curriculum. With that, LMIT is developing a pacing guide for educators who may use the curriculum in the future. LMIT also takes in feedback from the educators and logs their suggestions and tweaks.

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