

2020 Education Innovation and Research (EIR) Project Directors and Evaluators Technical Assistance Meeting

Virtual Meeting | October 21–23, 2020

Alternative STEM Measures

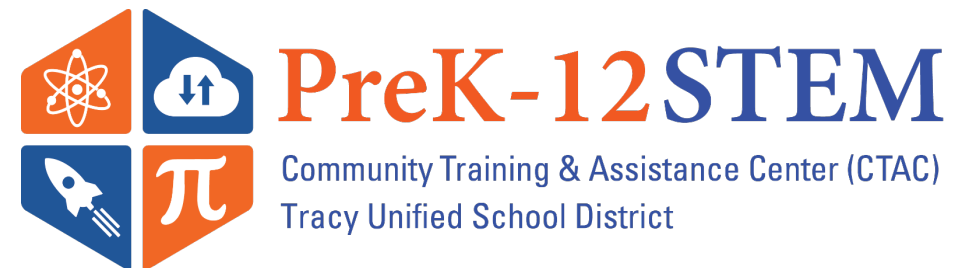
William J. Slotnik, Founder and Chief Executive Officer

Community Training and Assistance Center (CTAC)



Leadership of STEM: The PreK-12 Pathway

- Project Partners
 - Community Training and Assistance Center (CTAC)
 - Tracy Unified School District
- Key Components
 - Integrated STEM units: PreK-12
 - Partnerships
 - Professional learning and development
- Provides each student a STEM pathway



Project Principles and Mindset

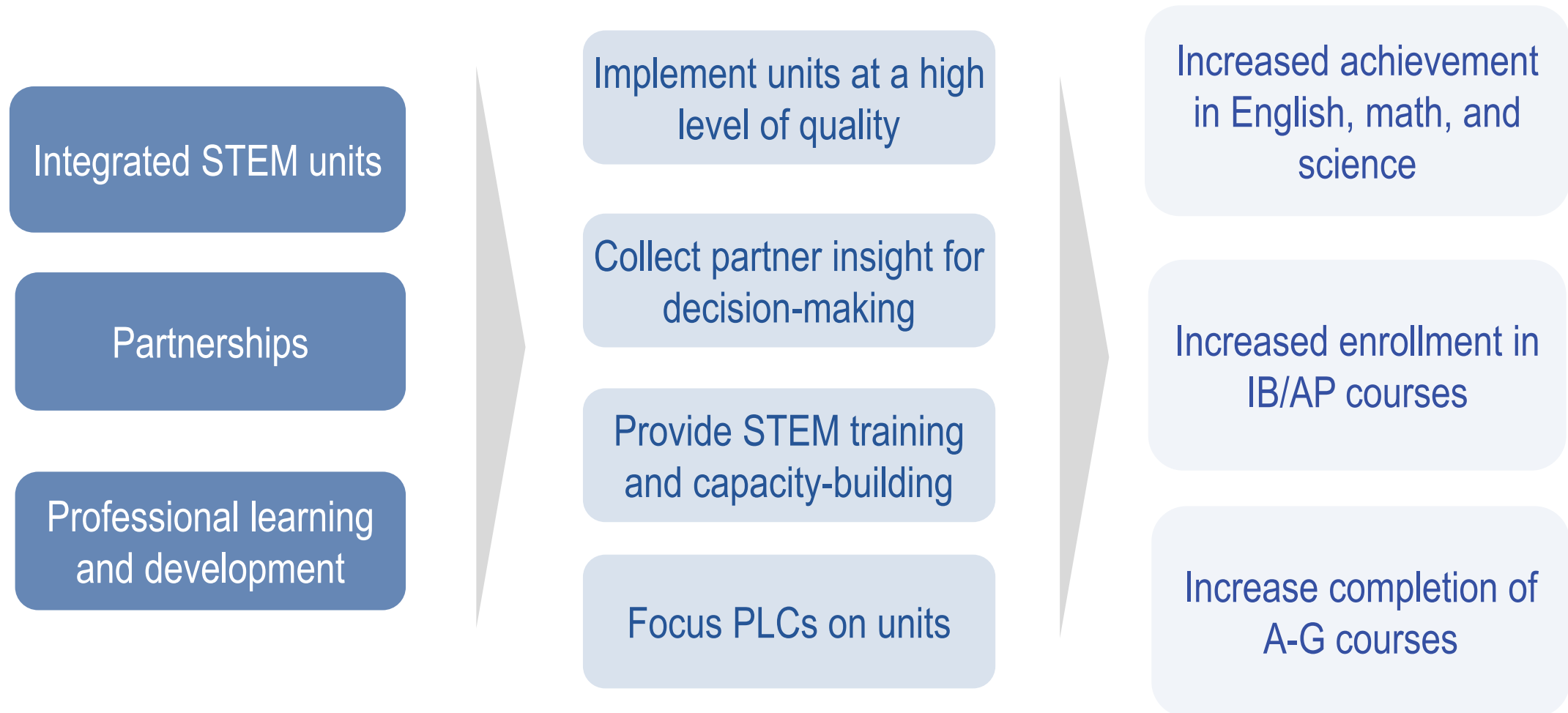
■ Principles

- Every child has access to STEM pre-kindergarten through grade 12
- STEM is integrated into the core curriculum

■ Mindset

- Each student can and will learn STEM
- Student inputs inform and help drive instruction
- Students benefit from collaborating with STEM professionals
- Systems need to respond to emerging priorities

Project Logic Model



Measure 1: Design Challenges



Design Challenge Features

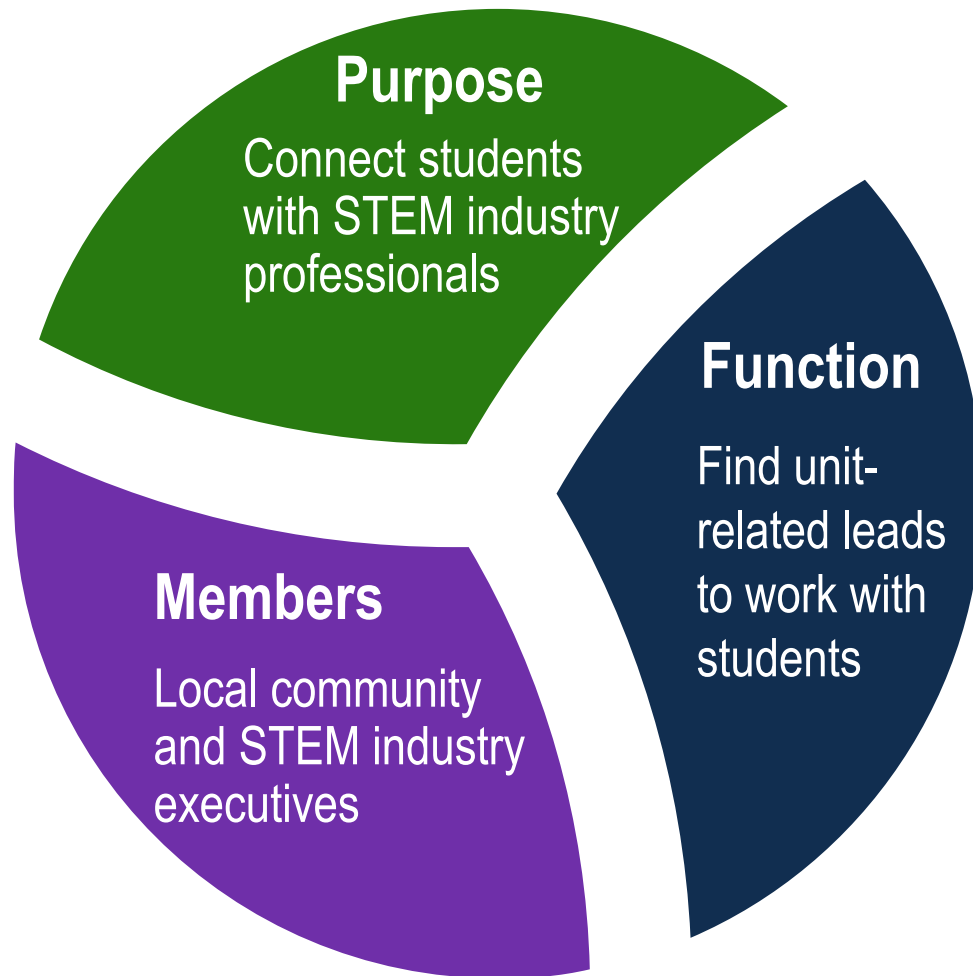
- Solves a problem
- Applies an engineering design process
- Incorporates computer science
- Results in work products
- Requires students to share products



Design Challenge Success Criteria

- NGSS performance expectation criteria
- Engineering design descriptors
- Computational artifact criteria
- Communication skills descriptor
- Collaboration criteria

Measure 2: Community Collaboratory



Increase the number of STEM industry professionals who partner with students during integrated STEM units

Measure 3: Collaborative Instructional Review

- Focuses on student actions related to rigor, relevance, and engagement
- Serves as district framework for high-quality instruction
- Involves peer teachers, administrators, and district leaders
- Informs site and district supports
- Comes from ICLE



Telling the Story

- A story from four perspectives:
 - Students: Ensuring robust STEM learning for all
 - Teachers: Making pedagogy more dynamic
 - District and School Leaders: Focusing instructional leadership on STEM
 - Systems: Changing how people think and behave

Thoughts? Reactions? Questions?

