

Teaching to Lead Math and Science

What Is T2L Math and Science?

Teaching to Lead Math and Science is a professional learning program for secondary math and science teachers who are entering or have entered education through an alternative route. Such teachers may have strong math and science content knowledge but lack a degree in education, classroom experience or confidence in their teaching abilities.

T2L Math and Science emphasizes essential teaching skills in four areas: instructional planning, engagement strategies, assessment and feedback, and classroom management.

Who Benefits From T2L Math and Science?

T2L Math and Science is ideal for **new and early-career math and science teachers** in the middle grades and high schools or full- or shared-time career centers but can also help veteran teachers improve their instruction.

With T2L Math and Science, teachers learn:

- What to do on the first day, in the first week and during the first nine weeks of school
- How to create a positive learning culture in a classroom of diverse students
- How to differentiate and personalize instruction
- How to plan real-world assignments
- How to engage, motivate and support students
- How to assess student learning
- What great teachers do and how they do it

How Does T2L Math and Science Support Teachers?

T2L Math and Science professional development and coaching are delivered by trainers with the extensive teaching and leadership experience needed to inspire and support new teachers. In every professional development or coaching session, participants **gain tools and strategies they can put to work right away in their classrooms.**

T2L Math and Science's customizable scope and sequence allow participants to receive as many as 200 hours of training before, during and after the first year of teaching, including:

- Intensive instruction during the summer before their first year of teaching
- Individual and team assignments, teach-backs and facilitated discussions
- Quarterly professional learning sessions that prepare teachers for the next nine weeks
- Opportunities to share problems and solutions within a community of peers
- On-site, job-embedded coaching visits
- On-site and virtual mentoring with experienced teachers
- Support from school leaders
- Intensive reflection and planning during the summer after the first year of teaching

Research-Based Teacher Prep

T2L Math and Science is based on [Teaching to Lead](#), our teacher prep program for CTE teachers who enter the classroom after successful careers in industry.

Developed by SREB and the National Research Center for Career and Technical Education, T2L for CTE teachers has been shown to improve teacher competence and self-efficacy in [an NRCCTE study of the T2L model](#).

What Does T2L Math and Science Include?

T2L Math and Science is organized into four modules presented in an integrated format to address participants' just-in-time learning needs through on-site institutes, virtual workshops and job-embedded coaching.

Module 1: Instructional Planning

This module helps teachers design and implement instructional plans that prepare students for further learning and the workplace. Effective instructional plans require teachers to have a solid grasp of their subject matter *and* understand their students' talents, interests, aspirations and learning needs. Teachers learn how to use unit plans, lesson plans, curriculum maps and course syllabi to create effective instructional plans.

Module 2: Engagement Strategies

This module focuses on the research-based instructional strategies math and science teachers need to design intellectually demanding, actively engaging instruction that aligns with grade-level standards. Lessons in this module help teachers understand not only what high-quality math and science instruction looks like, but also how to incorporate cooperative learning, literacy and technology in their classrooms.



Module 3: Assessment and Feedback

Effective teachers use assessments to provide ongoing feedback, report performance to students and parents, adapt their classroom practices and gauge students' readiness for their next steps. In this module, teachers explore how to use summative and formative assessments to provide feedback, measure learning and increase students' motivation. Teachers also learn how to record assessment data, determine course grades and use data to improve instruction.



Module 4: Classroom Culture

Teachers who foster strong relationships with their students experience fewer discipline problems and increase student engagement and learning. In this module, teachers learn how to create a well-managed classroom that promotes respectful, collaborative relationships. Teachers explore essential elements, tools and strategies for creating a positive classroom culture in which students feel accepted, safe and included.

Learn more. Contact Jason Adair at jason.adair@sreb.org or Scott Warren at scott.warren@sreb.org.