



BRIDGING EDUCATION AND INDUSTRY

Ten80 started with an innovative middle school teacher who knew she was missing something her students needed, and a visiting engineer who saw the skills gap growing. Over 20 years and over 60,000 students later, helping bridge that gap between what and how students learn, and the knowledge and skills needed by industry and civil society, is still Ten80's driving purpose.

Today's Ten80 team has two interconnected areas of expertise: (1) developing and delivering STEM curriculum, trainings, competitions, and events for schools and informal learning environments and (2) helping organizations achieve their strategic goals related to educational pipelines, workforce development, and brand awareness.

Our Programs

Ten80's STEM Challenges curricula and competitions empower educators to help students practice skills required to be professionals, and cultivate 21st Century Skills through team-oriented challenges.

Ten80 programs:

- Motivate students through exciting storylines, technology, and the opportunity to collaborate and compete
- Are standards-based, with formats for the formal classroom and out-of-school clubs or camps
- Are based on STEM Innovation and T-Square models (T-Square = Teamwork, Tool-use, Technology, and Tenacity)
- Engage students who are traditionally underrepresented in STEM, because they do not consider STEM relevant or because they are in underserved communities (70% from underserved communities and 41% girls)
- Change attitudes about career opportunities through hands-on learning (37% felt relevance for the first time).

Our Services

As your partner in education and workforce development, Ten80's team is an extension of yours, bringing decades of experience in:

- Strategic goal setting in education and workforce development
- Building and maintaining partnerships between multiple stakeholders
- Program and content development (ex. curriculum, camps, competitions, web-based applications, conferences)
- Event design and execution, ranging from a field trip to a manufacturing facility for 25 students to a career-inspiration event for 3,000 students
- Organizational team building and community engagement

Classroom experience to represent what teachers and students need

Corporate experience to understand business and industry-based challenges

Collaboration experience to build bridges with meaningful and sustainable solutions

CASE STUDIES IN BEI: BRIDGING EDUCATION & INDUSTRY

At Ten80, we use our decades of experience working with youth and schools to create inspiring engagements that meet industry partner goals around workforce pipelines, employee engagement, and community outreach.

CUSTOM FIELD TRIPS & EVENTS

Invest in your workforce development pipeline • Engage employees in their communities
Promote your industry, career fields, products, and services

EXAMPLE 1: TRADESHOW EVENTS WITH SEMA

To reach middle school students and spark their interest in auto-related careers, hobbies, and STEM education, Ten80 designed and produced more than 30 events over a three-year initiative. At each event, up to 500 students engaged in a hands-on automotive-themed project and visited a car show where they interacted with enthusiasts and industry professionals. SEMA (Specialty Equipment Manufacturer's Association) members shared information about their careers and companies while acting as mentors and judges at each event.



EXAMPLE 2: INDUSTRY-HOSTED EVENTS WITH LIGHTNING eMOTORS

Ten80 produced multiple one-day challenges at the Lightning eMotors facility in Loveland, CO for 100 local students. Ten80 designed the activity, filled the event, communicated with schools, and provided the team and gear for an exciting, high-energy hands-on exploration of electric vehicles. Hosting such events onsite allows employees to engage with their community and each other with minimal disruption to their work days. The Denver Broncos provided marketing and excitement support.



EXAMPLE 3: CUSTOM FIELD TRIP FOR CHARLOTTE MOTOR SPEEDWAY

Ten80 developed a field trip to bring students to the Speedway, to showcase the STEM behind racing, and to highlight careers related to the Speedway and the sports it houses. Ten80 designed the day's agenda and each field trip activity (including the curriculum, physical exhibits, videos, etc.), trained Speedway personnel, and facilitated the initial field trips with Charlotte-Mecklenburg Schools. Today, over 10 years later, thousands of students each year still participate in the Speedway STEM field trip.



EXAMPLE 4: STEM INNOVATION EVENTS WITH U.S. ARMY AS TITLE SPONSOR

Between 2012 and 2018, Ten80 designed and produced a series of touring events that engaged 600-1,200 high school students per event in hands-on STEM workshops, including conversations with Army and STEM experts. Over 50,000 students were directly impacted through the live events that featured hands-on workshops for every student. Center of Influence (COI) meetings engaged regional stakeholders in a collective-impact conversation.



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CUSTOM CURRICULUM AND/OR COMPETITION FEATURING INDUSTRY-SPECIFIC SKILLS AND ACTIVITIES

Hands-on curriculum, and optional culminating competitions, custom-designed by Ten80 to meet educational and career-related outcomes for K-12 students, based on industry-specific technology, services, and/or products

EXAMPLE 1: ADDITIVE MANUFACTURING WITH AMERICA MAKES

Ten80 developed a curriculum and materials kit for middle and high school students that combines autonomous vehicles with 3D Printing to promote additive manufacturing for America Makes, a division of the National Center for Defense Manufacturing and Machining. With support from Ten80, America Makes hosts an educator training, then deploys the kits and curriculum to schools for implementation.



EXAMPLE 2: MANUFACTURING AT SME STUDENT SUMMITS

Ten80 designed and produced a one-day competition featuring modern manufacturing skills for up to 500 students at each of four annual SME (formerly Society of Manufacturing Engineers) Student Summits. Step-by-step instructions guided students who were new to the content, while allowing room for experienced students to showcase their skills and creativity. Ten80 provided materials, gear, training, and event management. SME members served as mentors and judges, engaging with their future workforce and sharing insights about their companies and careers.

EXAMPLE 3: GREEN ENERGY WITH KANSAS ELECTRIC COOPERATIVES & PITSCO ED

Kansas Electric Cooperatives (KEC) and other energy-related organizations identified two important needs: (1) educate the public on important issues related to our country's transition to renewable energy and (2) train secondary students on concepts and skills critical to the solar industry. After consultation with industry experts, Ten80 developed a hands-on curriculum and culminating competition called the SunPowered Student Challenge. Ten80's team also delivered training to educators and produced the competition that included industry-expert judges and mentors. The program returning to Kansas and will expand to other states.



PARTICIPATION IN TEN80 STEM CHALLENGES

Schools around the U.S. and in China use Ten80's STEM Challenge curriculum featuring race engineering, autonomous vehicle, drone, and renewable energy technologies in classrooms, clubs, and camps. Some organizations choose to compete in local, regional, and/or national Ten80 competitions. Industry partners and Member Organizations support existing student teams, new teams, competitions, workshops, and professional development for educators.

EXAMPLE 1: MOUSER ELECTRONICS AND ANALOG DEVICES

As sponsors of Ten80's annual National competition, they meet brand awareness and community outreach needs.

EXAMPLE 2: NATIONAL SOCIETY OF BLACK ENGINEERS (NSBE)

NSBE sponsors new and returning teams in NSBE Jr. Chapters, who ultimately compete in the largest Pre-Collegiate competition at its Annual Convention.

