MAKING A MATERIAL DIFFERENCE

ASM MATERIALS EDUCATION FOUNDATION

ASMFOUNDATION.ORG



The ongoing shortage of the talent pipeline in STEM fields is indisputably putting innovation, sustainability, and economic opportunity at risk. It's never been clearer-we must engage, inspire, and empower the next generation of STEM professionals at an early age.

With a comprehensive menu of programs, based in materials science, the ASM Materials Education Foundation excites young people through STEM-focused learning and career exploration.

WORKFORCE DEVELOPMENT BEGINS IN THE CLASSROOM

Since launching our ASM Materials Camps for Teachers and K-12 Students in 2000, we have served nearly 18,000 students directly, and hundreds of thousands more through training more than 12,500 teachers on how to deliver materials science concepts in their classrooms and, also, have awarded \$2,458,086 in undergraduate scholarships.

Now is the time to accelerate the growth of the Foundation's proven programs to meet the greater need and provide opportunity: inspiring thousands more young people to explore materials science and consider engineering and technical fields.

2023 ASM MATERIALS CAMP OUTREACH

This year, 581 teacher participants attended ASM camps introducing more than 58,000 students to materials science and potential careers in engineering, science and a range of technical fields.

WHAT TEACHERS LEARNED >>>



feel prepared to implement new labs or demonstrations



% gained new ideas and approaches to teaching



2% are more prepared to engage learners at all levels of understanding



% report materials science concepts can and will be used in their classrooms

WHERE TEACHERS TEACH >>>



51% teach in Title I (low-income) schools

38% teach in a suburban environment 22% teach in a rural environment

Every single day of the camp I came away with multiple new activities, new resources, and new ways to talk about topics with my students. This was an amazing chance to get 'out' of the textbook and 'into' the real world.

Andrea Shannon Bowen, High School Teacher, Virginia







OUR CAMPAIGN VISION & KEY PRIORITIES

The Making a Materials Difference Campaign will broaden our reach by increasing the number of ASM Materials Camps and deepen our student engagement through innovative curriculum and classroom support.

PRIORITY 1:

Increase Materials Camps for Teachers to bring materials science and engineering into many more classrooms nationwide.

- Our vision will support 65 camps across all 50 United States and Canada, reaching over 1,600 teachers by 2030
- By 2030, the Foundation will impact 4.1 million students with the cumulative reach of more teachers in more classrooms



PRIORITY 2:

Deepen our engagement with students through enhanced curriculum, career exploration and classroom support.

- >>>> Launch a specialized 18-month program designed for teachers in under-resourced schools to effectively implement materials science curriculum with year-round classroom support
- >>> Endow the Materials Camp for Teachers in Detroit to recognize its historic significance as the first host site and further sustain our mission
- Develop public policy and outreach efforts to encourage state departments of education and school administrations to integrate high school materials science & engineering courses in their districts
- To make these priorities a reality, we are seeking \$8 million in additional philanthropic investment, as well as 50 new planned gifts.

THE IMPACT OF YOUR GIFT

The ASM Materials Education Foundation respectfully asks your consideration to impact the next generation of STEM professionals. By increasing the number of camps and delivering enhanced curriculum, your gift will advance our most critical objectives.

- >>>> Provide professional opportunities for more than 1,600 teachers per year to bring materials science concepts and courses into schools
- With the cumulative reach of teachers, more than 4 million students will bring materials concepts to life with hands-on, minds-on activities and creative, problem-solving challenges
- >>>> Excite young people about materials science careers, from technicians to PhD-level, and the countless opportunities
- >>>> Provide access to STEM programming as all Foundation programs are free of charge with comprehensive financial support
- Proactively addressing the urgent and pervasive need for an increased human pipeline of STEM professionals

= Potential Students Reached 2022 430 43,000 2023 581 141,100 2024 900 335,200 1,029 2025 629,200 2026 1,166 1,039,800 1,311 2027 1,581,500 1,403 2,263,500 2028 1,560 3,101,500 2029 2030 1,625 4,102,000

AN EXPOTENTIAL INCREASE IN

IMPACT OVER THE NEXT 7 YEARS

= Teachers Attending Materials Camp



INTERESTED IN LEARNING MORE?

Contact Kristie Maravalli, Campaign Directo 440-671-3813