

Encouraging middle school students to understand how materials shape their world!

Numerous studies have revealed an achievement gap in STEM knowledge and a reduced interest in STEM careers among middle school students. In 2014, ASM Materials Education Foundation launched a new program that focuses on engaging middle school children and exciting them about pursuing STEM education. The program encourages students to see the world around them as one in which science is transformed into technology through engineering. The primary goal of the program is to stimulate an interest in learning more about STEM as students move into high school.

Through the Materials Discovery program, students will work in small groups and use hands-on experiments to explore concepts of physical science while learning to draw conclusions and apply basic engineering principles. The program focuses on common materials such as metals, ceramics, polymers, and composites. Research has concluded that this type of approach is a proven pathway that will engage and excite students about STEM subjects.



Materials Discovery fills a hole in current middle school summer camp programming. It is chemistry-based with engineering applications that complements the recent emphasis on robotics and physics dealing with motion and energy. It also parallels with the new Maker Space programs allowing kids to make, manipulate and test a variety of materials.

This project is an initiative of the ASM Foundation's
Middle School Committee

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