CCAM Future Materials and STEM Corps

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Summary

- Future Materials and STEM Corps build an army of science advocates (CCAM participants and MSE students) to engage and educate K-12 students on materials research. Here we highlight the ability to motivate children as young as 4-years-old to pursue careers in science.
- Workshops teach the scientific method, introduce the material system of study and allow participants to form a hypothesis before conducting experiments. Following activities, students are able to apply what they learn to form new questions about the world around them.

Broader Impacts

- Virtual and in person events engaged over 400 K-12 students! In Irvine, Santa Ana, and Los Angeles Unified School Districts, having diverse ethnic, income and parent education level demographics.
- More than 80% of students said they want to go to college and pursue a career as a scientist or engineer after *Future Materials* workshops.

Summative Assessment of (pre)kindergarten students:

- Parents: “It was clear that you reached kids of all ages very effectively, … The breakout rooms were super effective and clearly well tailored to the different ages. WOW!!!”; “I am so impressed … and clearly my 4 year old was, too, because (they) wanted to repeat the experience today by teaching (their) grandparents how to make cake in a cup on FaceTime.”
- Participants: ““I will make a hypothesis and test it out”, “I’ll have a hypothesis!”

Future Materials Workshops in 2021-2022: Shapes of Engineering, Egg-cellent Science, and Catching Bubbles.