



# YOUTH SCIENCE INITIATIVE

Inspiring the next generation of scientists



EMW's Youth Science Initiative seeks to educate, inspire, and expose underserved local youth to the brilliant world of biotechnology and other sciences through a social lens. Through opportunities for creative and critical thinking, team work, and exposure to technical industries, EMW is preparing the next generation of scientists to make a measurable positive impact.

# WHAT WE'VE DONE

YSI helps youth explore how biotechnology and science can play an essential role in creating sustainable solutions for the future. Our events are comprised of hands-on activities, group discussions, and fun presentations to relay complex information in a simple way. We also bring youth into local science companies and laboratories in an effort to demystify such spaces. Here's what happened at our last event.



## MAKING MOLECULES

At Gingko Bioworks, the youth learned about the building blocks of life. They were exposed to the latest concepts in organism engineering through discussions and demonstrations, then designed their own microbes and created “microbial music.”

## FUTURE OF FOOD

At the MIT Media Lab Open Agriculture Initiative, the youth learned about urban farming. They harvested basil from a computerized farm inside a shipping container and learned about how we could farm our own food in the city.

## BIO-TINKERING

In collaboration with the MIT Media Lab's Lifelong Kindergarten group, the youth experimented with microscopes and “Scratch,” a programming language, to create animated stories using organisms and samples collected from nature.

## LIFE BEYOND EARTH

At the Museum of Science, NASA astronaut Cady Coleman talked to the youth about life on the International Space Station. Together they explored ideas about how we might travel to and sustain life on Mars.

# TESTIMONIALS



"YSI increased [our daughter's] appreciation of science and engineering. She now finds STEM really cool and wants to study and work in these fields."

"[My son] has a clearer understanding of the role of STEM in addressing critical global issues. YSI serves as a rich experience that his schools would never be able to offer."

"I am in awe of the range of complex science concepts my son understands and can explain in detail—it is because of YSI. YSI is building a team of brilliant youth to be the leaders of the future."

"What an awesome group of people! Thank you for making STEM so fun and interesting. Thank you for the confidence you have given my children. I loved how the assignments that were given were reflective of real life problems that adults worked on."

"Both twin daughters have grown to love subjects as math and engineering. They then have asked to participate in their school's "Coders Club" because they have gained the confidence from their participation in the YSI program."



## OUR TEAM

**David Sun Kong, Ph.D.**, Co-Director  
**Crystal Johnson**, Co-Director  
**Matt Mendoza**, YSI coordinator  
**EMW Street Bio**, Community



**Partners and Sponsors:** Ginkgo BioWorks, MIT Media Lab Open Ag, Life Long Kindergarten (LLK), Koinonia Collaborative Institute, Museum of Science, NASA



Museum of Science



Interested in supporting kids in science? Please contact our Development Director, Simone Labbanca, at [simone.labbance@gmail.com](mailto:simone.labbance@gmail.com) or (617) 544-3401.