40+ years of K-12 STEM Outreach
Evidence-Based Outreach
Research Original Interventions

New Faculty Orientation – August 2019
Mission: To inspire, inform, and impact underrepresented, underserved, and disadvantaged K-12 students to develop STEM identity and to increase lifelong participation in STEM by providing community-oriented and research-based educational opportunities.
K-12 STEM Center merges

- STEM Educational Outreach Programs
- Viterbi Adopt-a-School, Adopt-a-Teacher

Maja Matarić:
K-12 STEM Center Lead

Co-Directors:
Darin Gray, Ed.D.
Katie Mills, Ph.D.

Staff:
Mary Bonapart-Saller, Ph.D.
Ben Louie, MESA Director

12,000 students per year
USC Viterbi K-12 STEM Center

Local Schools:
- Low income
- Low resources
- 60-98% under-represented minorities
- USC Family of Schools & NAI
- >500 schools, >20 districts

University of Southern California
Programs, Projects & Partnerships

MESA
Mathematics
Engineering
Science
Achievement

Code.org®
Regional Partner

USC Viterbi
STEM School Partnerships (VSSP)

USC Viterbi
School of Engineering

SHINE
Summer High School Intensive in Next-Generation Engineering

USC Viterbi
Mission Science

USC Viterbi
Energy of STEM

USC Viterbi
Project Payload

University of Southern California
Programs, Projects & Partnerships

https://viterbik12.usc.edu/broader-impacts/
Get involved throughout the year

Pipeline of events to engage schools, teachers & students:

Faculty can contribute Broader Impacts through events & programs

Fall: MESA, BOTS, Mission Science, Project Payload, College & Career Day

Summer 2020: SHINE, Mission Engineering, Discover Engineering, CS@SC Camps

Dec 2019 Code Dojo

April 2020: Robotics Open House

February 2020: 2020EngX (Prof. Armani)

>28,000 students

Tentative partners and timeline for 2019-20 Spotlights

USC Viterbi
School of Engineering

University of Southern California
# Broader Impacts Pathway

<table>
<thead>
<tr>
<th>2019-2020</th>
<th>2020-2021</th>
<th>2021-2022</th>
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<tbody>
<tr>
<td>Tap into STEM Center Event</td>
<td>Identify possible partner school for lab tour or speak/judge</td>
<td>Develop relationship with the partner school</td>
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<tr>
<td>Speak/Judge Join SHINE or other programs</td>
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**During the year you submit CAREER proposal:**
- **Fall:** brainstorm, STEM Center helps identify partner possibilities, meet Principal
- **Spring:** interaction with Partner (lab tour, meet faculty, etc.)
- **May:** ask for a letter of collaboration from STEM Center & Partner Principal

*USC Viterbi School of Engineering*