The National Academies of
SCIENCES · ENGINEERING · MEDICINE

Board on Science Education
Division of Behavioral and Social Sciences and Education

Workshop Agenda
The Role of Authentic STEM Learning Experiences in Developing Interest and Competencies for Technology and Computing
Room 100, Keck Center
500 Fifth Street NW, Washington, DC
November 4, 2019

Purpose and Goals: This workshop will illustrate the various ways in which stakeholders define and conceptualize authentic STEM learning opportunities for young people in grades K-12 in formal and informal settings and what this means for developing interest and competencies for technology and computing. Presenters will unpack the state of the evidence on (1) the role of STEM learning opportunities, (2) promising approaches and strategies in the development of interest and competencies, and (3) what this means for the goals, design, and implementation of such experiences for computing and technology. A recurring theme throughout the workshop will be implications for increasing diversity and access among underserved young people.

12:30 pm	*Registration, Light Refreshments and Coffee*

1:00 pm   Welcome and Overview of the Study
Barbara Means, Study Chair

1:10 pm   Panel Discussion: *Authentic STEM Activities for Computing and Technology—Defining "Authentic"*
Moderator: Shaundra B. Daily (committee member), *Duke University*

Panelists:
- Tamara Clegg, *University of Maryland*
- Ron Eglash, *University of Michigan*
- Emmanuel Schanzer, *Bootstrap*
- Shirin Vossoughi, *Northwestern University* (virtual)

2:25 pm   *Panel transition*

2:30 pm   Panel Discussion: *Authentic STEM Outcomes for Computing and Technology*
Moderator: Cheri Fancsali (committee member), *Research Alliance for New York City Schools*

Panelists:
- Jill Denner, *ETR*
- Sonia Koshy, *Kapor Center*
- Keliann LaConte, *Space Science Institute* (virtual)
- Jean Ryoo, *University of California, Los Angeles*

- David Weintrop, *University of Maryland*

3:50 pm ***Brief Networking Break***

4:15 pm ***Return from Break***

4:20 pm **Panel Discussion:** *Designing and Implementing Hands-on STEM Learning Experiences—Implications for Computing and Technology*
<u>Moderator:</u> Juan Gilbert (committee member), *University of Florida*

<u>Panelists:</u>
- Lisa Brahms, *Monshire Museum of Science* (virtual)
- Chrissy Booth Chen, *Boys & Girls Club of America*
- Loretta Cheeks, *Strong TIES*
- Amon Millner, *Olin College*
- Kylie Peppler, *University of California, Irvine*

5:35 pm **Open Discussion:** *What are the biggest issues for developing interest and competencies for computing and technology that need to be address?*

6:00 pm **Workshop Concludes/Networking Hour Commences**