

K-12 STEM Initiatives and Cybersecurity Education.

The next generation of cybersecurity professionals must be built on a strong K-12 foundation in mathematics. Efforts to encourage student interest in STEM disciplines, including math and computing, should begin in elementary school and continue through graduation from high school.

Refocusing our nation's high school programs to include exploration of computational thinking concepts will prepare more students to take advantage of academic programs in cybersecurity, as well as sparking interest in high tech careers. Few states have adopted K-12 computing education standards and few have a credentialing process for computer science teachers. The National Science Foundation works to address this issue by supporting the College Board in the development of a new Advanced Placement (AP) course, Computer Science Principles, which will include an introduction to cybersecurity in the context of a more rigorous and engaging high school computer science curriculum. The purpose of this session is to discuss ongoing efforts in K-12 STEM education related to computing and cybersecurity.