Science Curricula Integrating Technology and Engineering Connections Phase II (SCITEC II)

Abstract

The need to better prepare students to live and work in a global society that requires STEM (science, technology, engineering and mathematics) knowledge and skills has been recognized both nationally and in Maine. The Science Curricula Integrating Technology and Engineering Connections (SCITEC) phase II project targets student learning in Maine'*s* Science and Technology *Learning Results* B2, C2, and C3, and national standards related to engineering design and managing the impacts of technology.

The goals of the SCITEC II project are to increase:
(1) **Teacher content knowledge** about the Engineering Design Process
(2) **Teacher pedagogical content knowledge** about teaching the Engineering Design Process
(3) **Student content knowledge** about the Engineering Design Process
(4) **Student skills** implementing the Engineering Design Process

By targeting these goals SCITEC II brings unique engineering design opportunities to all participating schools, while growing the existing collaborative network to include faculty and students from the Capital Area Technical Center and five high schools: Cony HS (high needs LEA), Gardiner Area HS (high needs LEA), Hall-Dale HS, Maranacook HS, and Monmouth Academy, together with the Maine Mathematics and Science Alliance, the National Center for Technological Literacy - Boston Museum of Science, University of Maine College of Engineering, Foster Center for Student Innovation and AEWC Advanced Structures and Composites Center, Kennebec Valley Community College and the Maine Composites Alliance.

SCITEC II activities and partners support a combination of whole-group learning experiences and interest-based professional learning communities collaborating with a larger established network of projects focused on Maine engineering education.