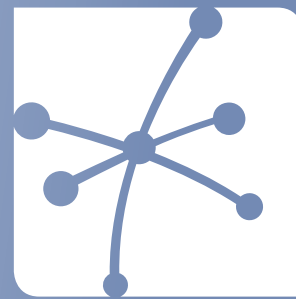


SCIENCE & ENGINEERING PRACTICES



Making Sense of
SCIENCE

FORMAT

Two 7-hour days of professional learning

AUDIENCE

K–12 teachers, facilitators, and coaches with any level of experience

SEQUENCING

An ideal follow-up to the *Multidimensional Science Education* course and the *Crosscutting Concepts* course. Also a useful introductory course for sites that are beginning their NGSS implementation with the DCIs and SEPs.

RELATED MATERIALS

We recommend the Classroom Innovations PLC protocol as the continuing learning tool.

This course gets teachers engaged in the science and engineering practices, unpacking what those practices are, exploring how they relate to learning science and engineering content, and investigating the roles of teachers and students in classrooms that use these practices. Special emphasis is given to the essential practice of asking questions — how to get students asking their own questions and what to do as a teacher with those student-generated questions.

A mini-maker science investigation around photosynthesis engages participants in several of the science and engineering practices. Then a variety of surprising hands-on phenomena involving light focuses participants on asking questions, developing explanations, arguing from evidence, and designing investigations. Participants then move onto exploring the Earth-Sun system, explaining seasonal phenomena involving sunlight and shadows, and using a collaborative explanation development protocol to refine those explanations. An engineering activity focused on modeling a phenomena ties the learning together.

The course concludes with participants describing what classrooms that use the science and engineering practices look like and what steps they can take to move toward that vision in their school.

Next Generation Science Implementation

The Next Generation Science Implementation (NGSI) suite of courses engages participants in multidimensional, adult-level science learning, investigations into next generation science mindset and pedagogical shifts, and strategizing for implementation. The NGSI courses are synergistic, so participants who engage with multiple courses develop a rich, multidimensional, and practical understanding of the properties of next generation science education and how to support implementation in their own context.



WANT TO KNOW MORE? Visit us online at wested.org/mss or contact us at mssevents@wested.org.