



FORMAT

Three 7-hour days of professional learning

AUDIENCE

Middle school and high school teachers with any level of experience

SEQUENCING

Ideal for sites looking for a comprehensive start to their NGSS implementation efforts and sites looking for a stepping stone from teacher knowledge of NGSS to teachers implementing NGSS-shifted instruction

RELATED MATERIALS

MSS has a comprehensive student unit on waves for middle school, designed from the ground up for NGSS. We recommend the Classroom Innovations PLC protocol as a continuing learning tool.

In this course, participants explore the multidimensionality of the NGSS, discuss how the NGSS supports equitable engagement of all learners, and do a deep dive into what the NGSS says about waves. The science learning begins with a musical anchor phenomenon and includes challenging, multidimensional investigations into the properties and behaviors of waves, deep dives into electromagnetic waves, sound waves, and using waves to encode and transmit data, with a focus on applying knowledge and skills to make sense of the anchor phenomenon.

The course also provides an opportunity for participants to use their developing understanding of the structure and philosophy of next generation science education to evaluate an NGSS-shifted student unit — both preparing them to teach next generation science curricula and to participate in state and district NGSS curriculum adoption efforts. MSS has a comprehensive student unit on waves available for middle school, which was designed from the ground up for NGSS and is ideal for this analysis, but participants can use any middle school waves student unit for this task.

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.

