National Education Standards

Engineering Everywhere units are written with the goal of teaching engineering skills and critical thinking practices. Many Engineering Everywhere units also touch upon a variety of science topics and principles. The engineering standards taught in *Engineering Remote Sensing Devices,* and the science concept connections within this unit are noted below.

ITEEA – STEL Core Disciplinary Standards Grades 6 – 8	Prep Activity 1: What Is Engineering?	Prep Activity 2: What Is Technology?	Activity 1: Looking Beyond	Activity 2: Secret Messages	Activity 3: Taking Shape	Activity 4: Create a Remote Sensing Device	Activity 5: Improve	Activity 6: Engineering Showcase
Nature and Characteristics of Technology and Engineering	✓	✓	✓	✓	✓	✓	✓	✓
Core Concepts of Technology and Engineering	✓		✓	✓	✓	✓	✓	✓
Integration of Knowledge, Technologies, and Practices			✓	✓	✓	✓	✓	✓
Impacts of Technology								
Influence of Society on Technological Development						✓	✓	✓
History of Technology								
Design in Technology and Engineering Education	✓		✓	✓	✓	✓	✓	✓
Apply, Maintain, Assess Technological Products and Systems								

Next Generation Science Standards Middle School Grades 6 – 8	Prep Activity 1: What is Engineering?	Prep Activity 2: What is Technology?	Activity 1: Looking Beyond	Activity 2: Secret Messages	Activity 3: Taking Shape	Activity 4: Create a Remote Sensing Device	Activity 5: Improve	Activity 6: Engineering Showcase
MS-PS4-2 Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.			✓	✓		✓	✓	
MS-ESS1-3 Analyze and interpret data to determine scale properties of objects in the solar system.					✓	✓	✓	✓
MS-ESS2-3 Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of past plate motions.						✓	✓	✓
MS-ETS1-1 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.	✓		✓		✓	✓	✓	✓
MS-ETS1-2 Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.		✓						✓
MS-ETS1-3 Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.	✓		✓		✓	✓	✓	✓
MS-ETS1-4 Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.	✓			✓	✓	✓	✓	