

- 1. Three Dimensional Learning:** There are three equally important, distinct dimensions to learning science included in the New Jersey Student Learning Standards for Science (NJSLS-S): Scientific and Engineering Practices, Crosscutting Concepts, and Disciplinary Core Ideas. The NJSLS-S connect all three dimensions. To prepare students for success in college and 21st century careers, the NJSLS-S also connect scientific principles to real-world situations, allowing for more engaging and relevant instruction to explore complicated topics.
- 2. All three dimensions build coherent learning progressions:** The NJSLS-S provide students with continued opportunities to engage in and develop a deeper understanding of each of the three dimensions of science. Building on the knowledge and skills gained from each grade—from elementary through high school—students have multiple opportunities to revisit and expand their understanding of all three dimensions by the end of high school.
- 3. Students engage with phenomena and design solutions:** In instructional systems aligned to the NJSLS-S, the goal of instruction is for students to be able to explain real-world phenomena and to design solutions using their understanding of the Disciplinary Core Ideas. Students can achieve this goal by engaging in the Science and Engineering Practices and applying the Crosscutting Concepts.
- 4. Engineering and the Nature of Science is integrated into science:** Some unique aspects of engineering (e.g., identifying problems) are incorporated throughout the NJSLS-S. In addition, unique aspects of the nature of science (e.g., how theories are developed) are also included throughout the NJSLS-S as practices and crosscutting concepts.
- 5. Science is connected to math and literacy:** The NJSLS-S not only provide for coherence in science instruction and learning but the standards also connect science with mathematics and English Language Arts. This meaningful and substantive overlapping of skills and knowledge affords all students equitable access to the learning standards.