Each standard or Performance Expectation (PE) includes 3 dimensions of science proficiency:

**SEPs:**
1. Asking questions and defining problems
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations and designing solutions
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

**Core Ideas**
1. Physical sciences (4 subcategories)
2. Life sciences (4 subcategories)
3. Earth and space sciences (3 subcategories)
4. Engineering, technology, and applications of science (2 subcategories)

**Crosscutting Concepts**
1. Patterns
2. Cause and effect: mechanism and explanation
3. Scale, proportion, and quantity
4. Systems and system models
5. Energy and matter: flows, cycles, and conservation
6. Structure and function
7. Stability and change

Achieve, Inc. on behalf of the twenty-six states and partners that collaborated on the Next Generation Science Standards. 2013.