**Cross Cutting Concepts (CCCs)**

- Patterns
- Cause & effect
- Scale, proportion, and quantity
- Systems & systems models
- Energy & matter
- Structure & function
- Stability & change

**Disciplinary Core Ideas (DCIs)**

- Life Sciences
- Physical Sciences
- Earth and Space Sciences
- Engineering, Technology, and Applications of Science

**Scientific and Engineering Practices (SEPs)**

- Asking questions/Defining problems
- Developing and using models
- Planning and carrying out investigations
- Analyzing and interpreting data
- Using mathematical and computational thinking
- Constructing explanations/Designing solutions
- Engaging in arguments from evidence
- Obtaining, evaluating and communicating information

**Example Performance Expectations (PEs):**

**2-PS1-1.**
Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

**5-PS1-1.**
Develop a model to describe that matter is made of particles too small to be seen.

**MS-PS1-1.**
Develop models to describe the atomic composition of simple molecules and extended structures.

**HS-PS1-1.**
Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.

**References:**
