Grade 2

3.2.2.A Physical Science: Matter and Its Interactions

Students who demonstrate understanding can *plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.*

Clarifying Statement: Observations could include color, texture, hardness, and flexibility. Patterns could include the similar properties that different materials share.

Assessment Boundary: N/A

Science and Engineering Practices (SEP)	Disciplinary Core Ideas (DCI)	Crosscutting Concepts (CCC)
Planning and Carrying Out Investigations Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. • Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question.	**Structure and Properties of Matter** • Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties.	**Patterns** • Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.

Pennsylvania Context: N/A

PA Career Ready Skills: Identify multiple ways to solve conflicts and practice solving problems.

Connections to Other Standards Content and Practices

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
Agriculture (AFNR)	CS.06.01.01.a: Research and explain the foundational cycles in AFNR (e.g., water cycle, nutrient cycle, carbon cycle, etc.).
Science, Environmental Literacy and Sustainability (NAAEE)	K-4 Strand 1.B. Designing investigations: Learners design simple environmental investigations. K-4 Strand 2.1.A. Earth's physical systems: Learners describe characteristics of Earth's physical systems, including air, water, and land. They explain how these systems interact with one another and identify changes in the physical environment over time. They provide examples of how physical systems affect living organisms, including humans.
PA Core Standards: ELA	CC.1.4.2.V: Participate in individual or shared research and writing projects. CC.1.4.2.W: Recall information from experiences or gather information from provided sources to answer a question. CC.1.5.2.A: Participate in collaborative conversations with peers and adults in small and larger groups.

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
PA Core Standards and Practices: Math	MP.2: Reason abstractly and quantitatively. MP.6: Attend to precision. CC.2.4.2.A.4: Represent and interpret data using line plots, picture graphs, and bar graphs. CC.2.3.2.A.1: Analyze and draw two and three-dimensional shapes having specified attributes.
PA Standards: Social Studies	5.1.2.C: Define fairness in working with others.
Educational Technology (ISTE)	1.4. Innovative Designer: Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.
Technology and Engineering (ITEEA)	STEL-2C: Explain that materials are selected for use because they possess desirable properties and characteristics.