Science A–Z

SOLIDS, LIQUIDS, AND GASES (3–4)

Correlation of Resources to National Science Standards

Use the chart below to discover how selected Science A–Z resources in the Solids, Liquids, and Gases unit support certain Next Generation Science Standards (NGSS). While a single reading resource, science activity, comprehension support, or lesson cannot satisfy an entire Performance Expectation, using these resources together can help students develop the understandings and abilities they will need in order to satisfy each standard listed below. For a reverse correlation tool that connects the standards to resources, visit our NGSS correlations page: www.sciencea-z.com/main/NextGenerationScienceStandards.*

Check the Performance Expectations Key below this chart for the complete text of the standards cited for each resource.

Resource Type	Resource Title	Performance Expectations
Unit Nonfiction Book	*Solids, Liquids, and Gases* (3 reading levels)	**2-PS1-1; 5-PS1-1; 5-PS1-2; 5-PS1-3**
Interactive Science Lesson	*Changing States of Matter Part 1:* Molecules and Energy	**5-PS1-1; MS-PS1-4**
Interactive Science Lesson	*Changing States of Matter* Part 2: Temperature and State Changes	**5-PS1-1; MS-PS1-4**
Interactive Science Lesson	*Changing States of Matter* Part 3: Pressure and State Changes	**5-PS1-1; MS-PS1-4**
Process Activity	*Changing States of Water*	**5-PS1-1; 5-PS1-2; 3-5-ETS1-1**
FOCUS Book	*Gases in Your World*	**5-PS1-1; 5-PS1-3; 3-5-ETS1-3**
FOCUS Book	*Metallurgy*	**5-PS1-3; 5-PS1-4; 3-5-ETS1-1**
FOCUS Book	*Plasma: The Fourth State*	**5-PS1-1; 5-PS1-2**
FOCUS Book	*Strange Fluids*	**5-PS1-3; 5-PS1-4; 3-5-ETS1-3**
FOCUS Book	*Changing States*	**5-PS1-1**
Investigation Pack	Topic: Liquids I. Files: *Soup; Lava; Rapids and Waterfalls; Soda; Sports Drinks; Crude Oil* Mystery File: *Mercury*	**2-PS1-1; 5-PS1-1; 5-PS1-2; 5-PS1-3**
Debate	*Pool Problem*	**5-PS1-2; 3-5-ETS1-2**
Science Video	*Describing States of Matter*	**2PS1-1; 5-PS1-3**
Science Video	*Freezing and Melting*	**2-PS1-4; 5-PS1-2**
Science Video	*How Does a Hot-Air Balloon Work?*	**5-PS1-1**

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Resource Type	Resource Title	Performance Expectations
Science Video	*States of Matter*	**2-PS1-1; 5-PS1-2; 5-PS1-3**
Science Video	*What is a Reaction?*	**2-PS1-1; 2-PS1-4**
Career Files	*Odor Judge; Zamboni Driver; Chocolate Maker*	**2-PS1-1; 2-PS1-2**
Quick Read	*Hot-Air Balloons* (3 reading levels)	**5-PS1-1**
Quick Read	*Lava* (3 reading levels)	**2-PS1-1; 5-PS1-2; 5-PS1-3**
Quick Read	*Sand* (3 reading levels)	**2-PS1-1; 5-PS1-2; 5-PS1-3**
Science Diagram	*Freezing and Boiling Points of Water*	**5-PS1-2**
Science Diagram	*Particles of an Atom*	**5-PS1-1**
Science Diagram	*Periodic Table of the Elements*	**5-PS1-1; 5-PS1-3**
Science Diagram	*Water Molecule*	**5-PS1-1**

Performance Expectations Key

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

2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.

2-PS1-4. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.

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

5-PS1-2. Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.

5-PS1-3. Make observations and measurements to identify materials based on their properties.

5-PS1-4. Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

MS-PS1-4. Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.