Science A–Z

MIXING MATTER (5–6)

Correlation of Resources to National Science Standards

Use the chart below to discover how selected Science A–Z resources in the Mixing Matter 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. Most standards cited align with the grade level of this Science A–Z unit. 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	*Mixing Matter* (3 reading levels)	**5-PS1-1; 5-PS1-2; 5-PS1-3; MS-PS1-1; MS-PS1-2; MS-PS1-3; MS-PS1-4; MS-PS1-5**
Project-Based Learning Pack	*Baking Bread*	**5-PS1-1; 5-PS1-2; 5-PS1-3; 5-PS1-4; MS-PS1-2; MS-PS1-4**
Interactive Science Lesson	*What Is Matter Made Of?* Part 1: Building Blocks of Matter	**5-PS1-1; MS-PS1-1**
Interactive Science Lesson	*What Is Matter Made Of?* Part 2: Pure Substances and Mixtures	**5-PS1-1; 5-PS1-4; MS-PS1-1**
Interactive Science Lesson	*What Is Matter Made Of?* Part 3: Elements and Compounds	**5-PS1-1; 5-PS1-4; MS-PS1-1**
Interactive Science Lesson	*What Is Matter Made Of?* Part 4: What Is Matter Made Of?	**5-PS1-1; 5-PS1-4; MS-PS1-1**
Process Activity	*Mixtures, Solutions, and Suspensions*	**5-PS1-1; 5-PS1-2; 5-PS1-4**
FOCUS Book	*The Chemistry of Art*	**5-PS1-1; 5-PS1-3; MS-PS1-2**
FOCUS Book	*Dmitri's Table*	**5-PS1-1; MS-PS1-1**
FOCUS Book	*The Science of Baking*	**5-PS1-1; 5-PS1-2; 5-PS1-4; MS-PS1-2; MS-PS1-4**
FOCUS Book	*The Science of Lemonade*	**5-PS1-4; MS-PS1-2; MS-ETS1-1; MS-ETS1-2**
FOCUS Book	*Curious Marie Curie*	**5-PS1-1; MS-PS1-1; MS-PS1-5**

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Resource Type	Resource Title	Performance Expectations
Investigation Pack	Topic: Chemical Changes I. Files: *Kitchen Chemistry; Digestion; Fire; Nature's Glow; Plant Chemistry; Rockets* Mystery File: *Desalination*	**5-PS1-1; 5-PS1-2; 5-PS1-4; MS-PS1-2; MS-PS1-4; MS-PS1-5; MS-PS1-6; MS-LS1-7**
Debate	*Recycling Program*	**5-ESS3-1; MS-ESS3-3**
Science Video	*Elemental Atomic Weights*	**5-PS1-1; 5-PS1-3; MS-PS1-1**
Science Video	*Food Flavor Mystery Solved*	**MS-LS1-8**
Science Video	*Language of Chemistry*	**5-PS1-3**
Science Video	*Mass of a Solvent*	**5-PS1-1; 5-PS1-2; 5-PS1-3**
Career Files	*Chemist; Chef; Dairy Worker*	**5-PS1-4**
Quick Read	*Alloys* (3 reading levels)	**5-PS1-3; 5-PS1-4; MS-PS1-3**
Quick Read	*Coffee and Tea: Solutions* (3 reading levels)	**5-PS1-1; 5-PS1-2**
Quick Read	*Concrete* (3 reading levels)	**5-PS1-3; MS-PS1-3**
Science Diagram	*Comparing Atoms*	**5-PS1-1; MS-PS1-1**
Science Diagram	*Particles of an Atom*	**5-PS1-1; MS-PS1-1**
Science Diagram	*Periodic Table of the Elements*	**5-PS1-1; 5-PS1-3**
Science Diagram	*Water Molecule*	**5-PS1-1; MS-PS1-1**

Performance Expectations Key

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.

5-ESS3-1. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

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

MS-PS1-2. Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.

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MS-PS1-3. Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.

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.

MS-PS1-5. Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved.

MS-PS1-6. Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.

MS-LS1-7. Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.

MS-LS1-8. Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.