



## All About Matter Module 5<sup>th</sup> Grade Classroom Module

### Program Summary

In this three-lesson module students study properties of matter and conservation of matter.

Lesson 1: Students test materials to discover their properties to help identify mystery powders, metals, and minerals.

Lesson 2: Students complete four investigations to discover that sometimes mixing substances creates a new substance with new properties.

Lesson 3: Students conduct two experiments that show the total weight of matter is conserved through changes in shape and temperature.

### Phenomena

Substances in different states of matter can be combined to make new substances and different states of matter.

Materials can be identified by their observable properties.

Total weight of matter is conserved regardless of any changes that occur.

### Next Generation Science Standards

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.

| Science and Engineering Practices                 | Disciplinary Core Ideas                  | Crosscutting Concepts           |
|---------------------------------------------------|------------------------------------------|---------------------------------|
| Using Mathematics & Computational Thinking        | PS1.A Structure and Properties of matter | Scale, Proportion, and Quantity |
| Planning and Carrying Out Investigations          | PS1.B Chemical Reactions                 | Cause and Effect                |
| Constructing Explanations and Designing Solutions |                                          |                                 |

**Common Core State Standards**

ELA-LITERACY.RST.5.4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.

CCSS.ELA-LITERACY.W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

CCSS.ELA-LITERACY.SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

Date: \_\_\_\_\_

Asombro staff: \_\_\_\_\_