



Science Interns Module: Matter 5th Grade

Overview

This four-lesson module helps students learn (1) to describe the different states of matter when substances are mixed, (2) to identify materials based on their properties, and (3) that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. They also prepare to teach three mini-stations to younger students at their school. In lesson 1, students review the three states of matter and conduct investigations to find the correct recipe for oobleck. In lesson 2, students test different materials to discover their properties to help identify a mystery powder. In lesson 3, students learn that the total weight of matter is conserved through several experiments. Finally in Lesson 4, students are assigned their teaching groups and practice teaching about matter to younger students.

Phenomena

- Substances in different states of matter can be combined to make new substances and different states of matter.
- Help Ricardo and his grandmother find which unlabeled jar contains baking soda. Can materials 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.

Asombro lessons are aligned with the three-dimensional learning model of the Next Generation Science Standards

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.

Asombro Lesson can accompany 5th Grade STEMScopes – Bundle 4 Scope 2

This lesson would best be incorporated before the Explore activities for Bundle 4 Scope 2 within STEMScopes.

Date: _____

Asombro staff: _____