

2nd Grade - Lesson 2.1

Liquids Have Properties

NGSS Alignment

Performance Expectations

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

Disciplinary Core Ideas

PS1.A: Structure and Properties of Matter

- Matter can be described and classified by its observable properties. (2-PS1-1)

After testing water, mineral oil, and corn syrup, students see that the three liquids each have their own characteristic properties.

Science and Engineering Practices

Planning and Carrying Out Investigations

- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. (2-PS1-1)

Constructing Explanations and Designing Solutions

- Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena.

Students conduct an investigation with water, mineral oil, and corn syrup to answer the question: Can liquids that look the same have different properties? Students see that the liquids look and act differently when placed on plastic that is flat and then tilted. They also observe that a drop of food coloring acts differently when placed in each liquid and conclude that the liquids have their own characteristic properties. Students see an animation suggesting that the characteristic properties of the liquids are caused by the molecules they are composed of.

Crosscutting Concepts

Cause and Effect

- Simple tests can be designed to gather evidence to support or refute student ideas about causes.

Students conduct simple tests and see a demonstration showing that water, mineral oil, and corn syrup have their own characteristic properties even though they look so similar. Students see an animation suggesting that the characteristic properties of the liquids are caused by the molecules they are composed of.