2nd Grade - Lesson 3.1
Dissolving Is a Property
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)

  Students investigate the dissolving of an M&M and a Skittle in water and see that each candy has its 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 help design an experiment to compare the dissolving of an M&M and a Skittle to answer the question: Do M&Ms and Skittles both dissolve the same amount? Students see that the outside of both candies dissolve similarly but the insides dissolve differently. Students see an animation showing that the molecules that make up the chocolate inside the M&M and molecules that make up the sugar inside the Skittle are different. Water is attracted to the molecules differently and helps explain why the inside of the Skittle dissolves but the inside of the M&M does not.

Crosscutting Concepts

Cause and Effect

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

  Students observe that the inside of the Skittle dissolves but that the inside of the M&M does not dissolve. Students could conclude that water is able to dissolve the inside of the Skittle but unable to dissolve the inside of the M&M. They could conclude that this has something to do with the molecules that make up the sugar in the Skittle and the chocolate in the M&M. Students see an animation that supports this idea.