

New York State Science Learning Standards Two Small Pieces of Glass

3rd Grade

Disciplinary Core Ideas:

- PS2.A: Forces and Motion

Crosscutting Concepts:

- Patterns
- Cause and Effect
- Systems and System Models
- Scale, Proportion, and Quantity
- Interdependence of Science, Engineering, and Technology
- Scientific Knowledge Assumes an Order and Consistency in Natural Systems

4th Grade

- **4-PS4-2.** Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.

Disciplinary Core Ideas:

- PS4.B: Electromagnetic Radiation

Crosscutting Concepts:

- Patterns
- Cause and Effect
- Energy and Matter
- Systems and System Models
- Scale, Proportion, and Quantity
- Interdependence of Science, Engineering, and Technology
- Scientific Knowledge Assumes an Order and Consistency in Natural Systems

5th Grade

- **5-ESS1-1.** Support an argument that differences in the apparent brightness of the Sun compared to other stars is due to their relative distance from the Earth.

Disciplinary Core Ideas:

- PS1.A: Structure and Properties of Matter
- ESS1.A: The Universe and its Stars
- ESS1.B: Earth and the Solar System

Crosscutting Concepts:

- Patterns
- Cause and Effect
- Systems and System Models
- Scale, Proportion, and Quantity
- Science Addresses Questions About the Natural and Material World
- Scientific Knowledge Assumes an Order and Consistency in Natural Systems
- Systems and System Models



Middle School

- **MS-PS2-4.** Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects and the distance between them.
- **MS-PS4-2.** Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.
- **MS-ESS1-1.** Develop and use a model of the Earth-Sun-moon system to describe the cyclic pattern of lunar phases, eclipses of the Sun and Moon, and seasons.
- **MS-ESS1-2.** Develop and use a model to describe the role of gravity in the motions within galaxies and the Solar System.

Disciplinary Core Ideas:

- PS1.A: Structure and Properties of Matter
- PS2.A: Forces and Motion
- PS2.B: Types of Interactions
- PS4.B: Electromagnetic Radiation
- ESS1.A: The Universe and Its Stars
- ESS1.B: Earth and the Solar System

Crosscutting Concepts:

- Patterns
- Cause and Effect
- Structure and Function
- Systems and System Models
- Scale, Proportion, and Quantity
- Interdependence of Science, Engineering, and Technology
- Scientific Knowledge Assumes an Order and Consistency in Natural Systems