

# Grade 8

## Matter and Its Interactions

- 1** Identify and compare the properties (e.g., solubility, density, color, texture, state of matter) of pure substances (e.g., tin, diamond, water, baking soda). [SCI.AAS.8.1](#)

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- 2** Identify what happens to the state of a pure substance when thermal energy is added or removed. [SCI.AAS.8.2](#)

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- 3** Differentiate between pure substances and mixtures. [SCI.AAS.8.3](#)

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- 6** Recognize that a change has occurred during a chemical reaction (e.g., burning sugar, burning steel wool, rust, effervescent tablets). [SCI.AAS.8.6](#)

## Motion and Stability: Forces and Interactions

- 9** Identify factors that affect acceleration of an object. [SCI.AAS.8.9](#)

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- 11** Recognize that an object at rest remains at rest if not acted on by an outside force. [SCI.AAS.8.11](#)

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- 11b** Describe the motion of two colliding objects before and after the collision. [SCI.AAS.8.11B](#)

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- 12** Investigate the effect of distance on the magnetic force of two magnets. [SCI.AAS.8.12](#)

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- 12a** Investigate the effect of increasing the number of wire turns in the electromagnet on its strength to pick up items. [SCI.AAS.8.12A](#)

## Energy

- 15** Make observations about energy transfers in common everyday occurrences (e.g., bowling ball hitting pins, brakes being applied to a bicycle or car). [SCI.AAS.8.15](#)

## Waves and Their Applications in Technologies for Information

- 17** Use a model to investigate ways to change the properties of a simple wave (frequency, amplitude, wavelength). [SCI.AAS.8.17](#)

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- 17a** Investigate how light and sound waves travel through a variety of media. [SCI.AAS.8.17A](#)

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- 18** Recognize that common communication devices use electromagnetic waves to transmit information and that these electromagnetic waves are invisible to the human eye. [SCI.AAS.8.18](#)