

Grade 3

Motion and Stability: Forces and Interactions

Changes in Motion

Cause and Effect

- 1 Conduct investigations to explain the effects of balanced and unbalanced forces exerted on an object, varying the size, number, and direction of the forces. 3.1
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Changes in Motion

Patterns

- 2 Observe and measure an object's motion to provide evidence that a pattern of motion can be used to predict future motion. 3.2
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Non-Contact Forces

Cause and Effect

- 3 Conduct investigations to determine cause and effect relationships between objects not in contact with one another, including magnetic and electrostatic forces. 3.3
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Non-Contact Forces

Systems and System Models

- 4 Apply scientific ideas about magnetic interactions to solve a problem using the engineering design process. 3.4
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From Molecules to Organisms: Structures and Processes

Growth and Development

Stability and Change

- 5 Develop and use models to compare the diverse life cycles of organisms other than humans, including birth, growth, reproduction, and death. 3.5
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Heredity: Inheritance and Variation of Traits

Inherited Traits and Environmental Impact

Patterns

- 6 Use data to provide evidence that plants and animals have observable traits inherited from parents and that variations of these traits exist in groups of similar organisms. 3.6
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Inherited Traits and Environmental Impact

Cause and Effect

- 7 Use evidence to support a claim that traits can be influenced by the environment. 3.7
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Unity and Diversity**Fossil Evidence****Scale, Proportion, and Quantity**

- 8 Analyze and interpret data from fossils to provide evidence of the existence of organisms and information about the environments in which they lived. 3.8
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Biodiversity**Systems and System Models**

- 9 Construct an explanation from evidence of how variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. 3.9
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Biodiversity**Energy and Matter**

- 10 Make a claim from evidence that an organism's likelihood of survival depends upon access to sufficient resources in its habitat, including sunlight, air, water, food, and shelter. 3.10
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Biodiversity**Cause and Effect**

- 11 Construct explanations of how forming groups helps some organisms survive. 3.11
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Human Impact**Scale, Proportion, and Quantity**

- 12 Obtain and communicate information regarding the impact of existing solutions on plant and animal populations when environmental changes occur. 3.12
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Earth's Systems**Weather****Patterns**

- 13 Represent data in tables or graphical displays to reveal typical weather patterns during a particular season. 3.13
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Climate

Systems and System Models

- 14** Use information from a variety of sources to describe climates in different regions of the world. [3.14](#)
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Earth and Human Activity

Natural Hazard Solutions

Cause and Effect

- 15** Obtain and communicate information on the effectiveness of existing solutions designed to reduce the impact of weather-related hazards. [3.15](#)