

# Grade K

## Motion and Stability: Forces and Interactions

### Changes in Motion

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#### Cause and Effect

- 1 Plan and carry out investigations to determine the effects of forces of different strengths and directions on the motion of an object, including speed, direction, and distance traveled. [K.1](#)
  - 2 Analyze data from investigations to determine whether a design solution provides sufficient force to change the speed or direction of an object. [K.2](#)
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## Ecosystems: Interactions, Energy, and Dynamics

### Structures and Processes

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#### Patterns

- 3 Use data from observations to distinguish characteristics of living and nonliving things. [K.3](#)
  - 4 Use observations to determine patterns of what plants and animals (including humans) need to survive, including light, water, and nutrients. [K.4](#)
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#### Interdependent Relationships

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#### Systems and System Models

- 5 Gather information from observations and media to explain how plants and animals can provide for their needs by changing their environment. [K.5](#)
  - 6 Use models of natural habitats to represent the interdependence among plants and animals native to their community. [K.6](#)
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## Earth's Systems

### Energy Transfer

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#### Cause and Effect

- 7 Make observations and describe the effects of sunlight on Earth's surface. [K.7](#)
  - 8 Design, construct, and test a device to reduce the effects of sunlight. [K.8](#)
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#### Weather

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**Patterns**

- 9 Observe, record, and communicate local weather patterns over a period of time. **K.9**
  - 10 Obtain, evaluate, and communicate information about using weather forecasts to make plans and prepare for severe weather. **K.10**
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**Earth and Human Activity****Human Impact**

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**Cause and Effect**

- 11 Identify a problem and design possible solutions that lessen the human impact on the local environment. **K.11**