

# Science: Earth and Space Science

## Earth and Space Science

### Space System

- 1 Use a model of the Earth-Sun-Moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons. [A.K.9.1](#)
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### History of Earth

- 2 Use a model to show how constructive forces (e.g., volcanoes) and destructive mechanisms (e.g., weathering, coastal erosions) change Earth's surface. [A.K.9.2](#)
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### Earth's System

- 3 Use evidence to support a claim that one change to Earth's surface can cause other changes over time (e.g., clear cutting a forest will increase erosion, damming a river may stop fish migration). [A.K.9.3](#)
  - 4 Use a model to describe the effects of water on Earth's surface (e.g., weathering, erosion, deposition, sedimentation). [A.K.9.4](#)
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### Weather and Climate

- 5 Using a model, demonstrate an understanding of how the effects of changes in climate can impact human lives. [A.K.9.5](#)
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### Human Sustainability

- 6 Demonstrate an understanding of how natural hazards have influenced human activity. [A.K.9.6](#)
- 7 Construct an argument for a strategy to conserve, recycle, or reuse resources. [A.K.9.7](#)
- 8 Analyze data to determine the effects of a conservation strategy on the level of a natural resource. [A.K.9.8](#)
- 9 Identify how Earth systems are being modified due to human activity (e.g., mountains removed for mining and building roads, rivers widened for boat transportation, animal populations decreased due to deforestation, fish populations decreased due to over fishing). [A.K.9.9](#)

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### **Engineering Design**

- 10 Generate and compare multiple possible solutions to a real-world problem based on how well each is likely to meet the criteria and constraints of the problem. [A.K.9.10](#)
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### **Science Literacy**

#### **Reading: Key Ideas and Details**

- 11 Follow procedures when taking measurements or carrying out experiments. [A.K.9.11](#)
  - 12 Identify the meaning of symbols, key terms, and other domain-specific words and phrases. [A.K.9.12](#)
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#### **Reading: integration of Knowledge and Ideas**

- 13 Express information visually (e.g., in a flowchart, diagram, model). [A.K.9.13](#)
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#### **Writing: Text Types and Purpose**

- 14 Compare and contrast discipline-specific content using domain-specific vocabulary to explain the topic. [A.K.9.14](#)
- 15 Provide an explanation of discipline-specific content using domain-specific vocabulary to explain the topic. [A.K.9.15](#)