

## Science 3 – 5 for use with NGSS 2013:

### Earth and Space Science: Earth's Systems

## Weathering and Erosion

#### Students

#### Learning Continuum Statements:

#### Students:

#### RIT 171-180:

- Describes how erosion and deposition form dunes and beaches

#### Students:

#### RIT 181-190:

- Describes how erosion and deposition form dunes and beaches
- Evaluates solutions to problems related to the changing of land by weathering and erosion

#### Students:

#### RIT 191-200:

- Describes how moving water erodes and carves land to form canyons over time
- Describes how erosion and deposition form dunes and beaches
- Evaluates solutions to problems related to the changing of land by weathering and erosion
- Recognizes that moving water makes rocks smooth and rounded
- Describes how the freezing and thawing of water causes weathering
- Describes how weathering and erosion from waves cause landforms to develop over time
- Describes how weathering and erosion from wind and water form buttes, pillars, and arches over time
- Describes environmental conditions that cause landslides
- Plans investigations to determine the effects of wind speed on the erosion of Earth materials

#### Students:

#### RIT 201-210:

- Describes how moving water erodes and carves land to form canyons over time
- Describes how erosion and deposition form dunes and beaches
- Evaluates solutions to problems related to the changing of land by weathering and erosion
- Describes how wind erosion changes Earth's surface, using models
- Recognizes that moving water makes rocks smooth and rounded
- Determines variables and controls in investigations about water erosion
- Evaluates procedures for collecting data for investigations about water erosion
- Describes how the freezing and thawing of water causes weathering
- Describes how water affects the weathering and erosion of rocks
- Describes how water causes weathering and erosion

- Determines evidence that supports claims about the formation of landforms
- Describes how water erosion changes Earth’s surface, using models
- Describes how weathering and erosion from waves cause landforms to develop over time
- Describes how erosion and deposition form deltas, islands, and flood plains
- Describes how weathering and erosion from wind and water form buttes, pillars, and arches over time
- Describes environmental conditions that cause landslides

**Students:**

**RIT 211-220:**

- Predicts the success of solutions to prevent erosion
- Describes how moving water erodes and carves land to form canyons over time
- Evaluates solutions to problems related to the changing of land by weathering and erosion
- Analyzes and interprets data about the causes of different rates of erosion
- Applies scientific ideas about the scale of geologic processes to explain changes in landscapes
- Applies scientific ideas and evidence to explain examples of chemical weathering
- Describes how water causes weathering and erosion
- Identifies problems that erosion and weathering can cause for humans
- Applies scientific ideas to explain how deposition affects the fertility of soil
- Determines evidence that supports claims about the formation of landforms
- Describes how water erosion changes Earth’s surface, using models
- Describes how erosion and deposition form deltas, islands, and flood plains
- Describes how weathering and erosion from wind and water form buttes, pillars, and arches over time
- Describes how water deposits sediments and changes landforms over time

**Students:**

**RIT 221-230:**

- Determines evidence that supports claims about the formation of landforms
- Describes how erosion and deposition form deltas, islands, and flood plains
- Describes how water deposits sediments and changes landforms over time

**Students:**

**RIT 231-240:**

- Describes how erosion and deposition form deltas, islands, and flood plains

**Students:**

**RIT 241-250:**

- Describes how erosion and deposition form deltas, islands, and flood plains