



**Unit 1
Earth's Processes**

**Grade 8
Science**

Unit Length and Description:

6 Instructional Weeks

Students will develop models to describe cycling of Earth's materials and flow of energy that drives this process and construct explanations for how geoscience processes have changed Earth's surface at various scales. Students will also analyze and interpret data on distribution of fossils, rocks, continental shapes and/or seafloor structures to provide evidence of the past plate motions, and relate this knowledge to develop models that describe the atomic composition of simple molecules and extended structures.

Science Standards:

- 8-MS-ESS2-1** Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.
- 8-MS-ESS2-2** Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.
- 8-MS-ESS2-3** Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.
- 8-MS-PS1-1** Develop models to describe the atomic composition of simple molecules and extended structures.

**Enduring Understandings-
Unit Anchor Phenomenon:**

The supercontinent Pangea, existed approximately 335 million years ago; it eventually separated into different continents.

**Essential Questions-
Reflective Summaries:**

- How did Earth's processes cause Pangea to break apart?
- How did the movement of energy and matter through Earth's surface impact the breakup of Pangea?
- Develop a model showing the changing Earth from the time of Pangea to current time.
- Write a scientific explanation including data and the interpretation of that data that supports the changing of Earth's surface over time.