

Identify and explain natural cycles of the earth's land, water, and atmospheric systems by:

- explaining erosion and weathering
- discussing the effects of erosion and weathering
- presenting examples of erosion and weathering that have shaped our natural landscape

Synthesize data about possible ways to predict earthquakes and other natural disasters, such as tsunamis and volcanic eruptions, and suggest ways that might diminish loss of life during future disasters.

Research and report on the impact of such phenomenon as earthquakes, volcanoes, weathering, and erosion on the earth's landscape and on its people.

Explain and analyze how the earth's internal heat creates movement of the earth's plates, resulting in earthquakes and in the formation of geologic features such as mountains, volcanoes, and trenches.

Student Choice

Investigate attempts to predict earthquakes and/or volcanic eruptions. Hypothesize a method that you think might work.

Demonstrate several methods used by archaeologists and other scientists to determine the age of fossil remains. Try to explain why different scientific methods can come up with different ages for the same set of remains.

Prioritize issues in Earth science that you believe scientists and/or the U.S. Congress should consider during the next 5–10 years. Give specific reasons for your ratings.

Study the rock formations that may be found in the area in which you live. Apply what you know about rocks and earth formations to hypothesize the stages of geologic growth your area has gone through over the past several thousand years.