

LINCOLN PUBLIC SCHOOLS
Science Learning Expectations: Grade 8

Strand:

Earth Science

**Mass Standard
ESS5**

Describe how the movement of the Earth's crystal plates causes both slow changes in the Earth's surface (e.g., formation of mountains and ocean basins) and rapid ones (e.g., volcanic eruptions and earthquakes).

See also: ESS2, and ESS5 and Inquiry Standards

Big Ideas

- ❑ Earth's internal heat is the driving force behind the constant slow movement of crustal plates.
- ❑ The surface of the earth is continually changing due to rapid events, such as volcanic explosions and earthquakes resulting from crustal movement.

Key Outcomes

- ❑ Students will demonstrate an understanding that **Earth's continents and oceans have changed positions over geologic time** by plotting the locations of tectonic activity around the globe.
- ❑ Students will demonstrate an understanding of **heat transfer within Earth's mantle** by creating and explaining convection currents.

Essential Knowledge and Skills

Students will know and/or be able to:

- ❑ Recognize that earthquakes and volcanoes result from tectonic activity.
- ❑ Differentiate between divergent, convergent and transform plate boundaries.
- ❑ Describe how heat moves through material beneath Earth's crust.