

## *Earthquakes and Volcanoes Standards*

### *Earth Science – 4<sup>th</sup> grade*

#### *Processes That Shape Earth*

10. Describe evidence of changes on Earth's surface in terms of slow processes (e.g., erosion, weathering, mountain building and deposition) and rapid processes (e.g. volcanic eruptions, earthquakes and landslides).

### *Earth Science – 8<sup>th</sup> grade*

#### *Processes that Shape Earth*

9. Describe the interior structure of Earth and Earth's crust as divided into tectonic plates riding on top of the slow moving currents of magma in the mantle.

10. Explain that most major geological events (e.g. earthquakes, volcanic eruptions, hot spots and mountain building) result from plate motion.

12. Explain that some processes involved in the rock cycle are directly related to thermal energy and forces in the mantle that drives plate motions.

13. Describe how landforms are created through a combination of destructive (e.g., weathering and erosion) and constructive processes (e.g., crustal deformation, volcanic eruptions and deposition of sediment).

14. Explain that folding, faulting and uplifting can rearrange the rock layers so the youngest is not always found on top.

15. Illustrate how the three primary types of plate boundaries (transform, divergent and convergent) cause different landforms (e.g., mountains, volcanoes and ocean trenches).

### *Earth Science – 9<sup>th</sup> Grade*

#### *Processes That Shape Earth*

6. Explain the results of plate tectonic activity (e.g., magma generation, igneous intrusion, metamorphism, volcanic action, earthquakes, faulting and folding).