

- PS 1 Students will analyze the mechanisms that drive plate motion, the different types of plate boundaries, and how boundary type relates to mountain building, earthquakes, volcanism, and features such as island arcs, hot spots, and mid-ocean ridges (SG3)
- PS 2 Students will use fossils, radiometric dating, stratigraphic relationships, and geologic maps (e.g. cross cutting, superposition, uniformitarianism) to interpret Earth's history. (SG1)
- PS 3 Students will identify minerals by their properties and categorize them into groups based on their chemical composition. (SG2)
- PS 4 Students will classify volcanoes, using their interior/exterior features, magma composition, and plate tectonic settings. (SG3)
- PS 5 Students will distinguish between the processes that form plutonic (intrusive) and volcanic (extrusive) igneous rocks of differing compositions. (SG2)
- PS 6 Students will differentiate between processes that form various types of sedimentary rocks. (SG2)
- PS 7 Students will analyze cross-sectional diagrams to differentiate between types of folds and faults and the landforms they produce and their relationship to tectonic settings. (SG3)
- PS 8 Students will describe different ways fossils are formed and how they are used to interpret geologic history, including unconformities.
- PS 9 Students will evaluate how climate systems affect landforms on the surface of the Earth. (SG4)
- PS 10 Students will characterize the geologic processes and resulting landforms of desert and glacial areas. (SG4)
- PS 11 Students will interpret weathering processes, soil formation, and erosional/depositional environments from observations. (SG4)
- PS 12 Students will investigate the characteristics, geologic processes, and human impacts associated with surface and groundwater as a natural resource. (SG4)

- PS 13 Students will apply geologic knowledge to using resources in the Earth and controlling human impacts on Earth's systems. ([SG5](#))
- PS 14 Students will research current controversies regarding the extraction and use of geologic resources. ([SG5](#))
- PS 15 Students will compare and contrast the impacts of using energy resources obtained from the Earth, with those of energy alternatives. ([SG5](#))
- PS 16 Students will examine the features of various coastal systems in different areas; erosion and depositional features, coastal management, wave action, and tides. ([SG5](#))