5th Grade Frameworks Pacing Guide
Earth and Changes Over time
Crosscutting Concepts: Stability and Change, Cause and Effect, and Energy and Matter
Topics: Structure and Function of Earth; Changes Over Time; Constructive and Destructive Processes
8-week Instructional Segment

Anchoring Phenomenon	GSE	Sample Instructional Segments	Disciplinary Core Ideas	Science and Engineering Practices	Instructional Notes
***Phenomenon**: Providence Canyon State Park: Video of Providence Canyon* This is a compilation of photographs depicting weathering, erosion, deposition, layers of Earth, and the impact of organisms. Students can view the processes and relate learning to the constructive and destructive processes that created the landform. Providence Canyon State Park website ***Phenomenon**: Yellowstone National Park (Snow, ice,*	S5E1.	Constructive and Destructive processes work together. Earth's Processes. Earth's Processes Discovered through Providence Canyon State Park Surface Features Caused by Constructive and Destructive Processes	***By the end of grade 5*** ● Earth has changed over time. ● Understanding how landforms develop, are weathered, and eroded can help infer the history of the current landscape. ● Local, regional, and global patterns of rock formations reveal changes over time due to Earth forces. ● The patterns of evolution and adaptation of particular living organisms are connected to Earth processes. ● The location of mountain ranges, deep ocean trenches, ocean floor structures, earthquakes, and volcanoes occur in patterns. ● Most earthquakes and volcanoes occur in bands along the boundaries between continents, but not all volcanoes occur in a chain. ● Maps can help locate the different land features where people live and in other areas of Earth. ● There may be rivers, streams, lakes,	Construct an argument Develop models Ask questions Analyze and interpret data Use mathematics and computational thinking	Use safety goggles when applicable. By the end of this unit, students are using the following language in their speaking and writing during EXPLAIN or ELABORATE: ● Constructive process ● Destructive process ● Weathering ● Erosion ● Deposition ● Landform ● Surface Feature ● Volcano ● Earthquake ● Seismology Bundled Curriculum: This instructional segment can connect

water, hot spot, supervolcano, fog, geyser, earthquake) This phenomenon links the internal processes with external landforms. Yellowstone National Park website Follow the tabs: Learn about the Park to Nature to the Earth's Processes of erosion and sedimentation, hydrothermal activity, earthquakes, and volcanoes. **Phenomenon:** Mt. St. Helens Image of eruption of May 1980: Image of eruption of May 1980		Evolving Landforms at Yellowstone: technology that monitors activity, and the creatures that call Yellowstone home Yellowstone National Park website	and ponds that impact Earth processes. • Water is found almost everywhere on earth: as vapor, fog or clouds in the atmosphere; as rain or snow falling from clouds; as ice, snow, and running water on land and in the ocean; and as groundwater beneath the surface. The downhill movement of water as it flows to the ocean shapes the appearance of the land. • Living things affect the physical characteristics of their regions (e.g., plants' roots hold soil in place, beaver shelters and human built dams alter the flow of water, and plants' respiration affects the air). • All materials, energy, and fuels that humans use are derived from natural sources, and their use affects the environment in multiple ways. • A variety of hazards result from natural processes (earthquakes, tsunamis, volcanic eruptions, severe weather) so that communities must prepare and respond to these events using technology. National Research Council. (2012). *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas.*		all Earth Science concepts (weathering, erosion, volcanic activity, earthquakes, the power of wind and water, wind, the technology that helps monitor, control, and predict the processes) and precludes the next instructional segment of the life science concept of learned behaviors and instincts that are impacted due to environmental changes.

This instructional segment will connect to 5SL1 and SL2. As Earth's features change, so do the organisms that live there. The plants and animals living on Earth are subject to natural and man-made changes. Animals and plants have physical characteristics that are inherited and are acquired. Instinct and learned behaviors help them live and thrive. Organisms are classified by their structures and features.