

THE STANDARD

Earth's Features

"Analyze and interpret data from maps to describe patterns of Earth's features."

DCI

DISCIPLINARY
CORE IDEA

ESS2.B · Plate Tectonics and Large-Scale System Interactions

"The locations of mountain ranges, deep ocean trenches, ocean floor structures, earthquakes, and volcanoes occur in patterns. Most earthquakes and volcanoes occur in bands that are often along the boundaries between continents and oceans. Major mountain chains form inside continents or near their edges. Maps can help locate the different land and water features areas of Earth."

This isn't about memorizing where one mountain sits. **It's about noticing that Earth's biggest features line up in patterns.**

SEP

SCIENCE &
ENGINEERING
PRACTICE

Analyzing and Interpreting Data

"Analyze and interpret data to make sense of phenomena using logical reasoning."

A map IS data. 4th graders aren't told the answer, they dig it out of the map themselves. **They look at where the symbols sit, notice what repeats, and reason their way to "these aren't random." The skill is turning a busy map into one clear sentence about a pattern.**

CCC

CROSSCUTTING
CONCEPT

Patterns

"Patterns can be used as evidence to support an explanation."

Here's the big idea 4th graders walk away with: a pattern is proof. When the volcanoes and earthquakes keep landing in the same bands, that repeating shape becomes evidence. **It tells us something real is happening underground in those exact places, even before we know what.**