

THE STANDARD

Weathering & Rate of Erosion

"Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation."



ESS2.A · Earth Materials and Systems

"Rainfall helps to shape the land and affects the types of living things found in a region. Water, ice, wind, living organisms, and gravity break rocks, soils, and sediments into smaller particles and move them around."

This standard is about how the land slowly changes. Water, ice, wind, and even plants break rocks into smaller pieces and carry them away. 4th graders don't memorize a list. **They run a test, like pouring water down a sand hill, and watch the land change in front of them.**



Planning and Carrying Out Investigations

"Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon."

4th graders aren't told how fast erosion happens and asked to repeat it. They build a little hill, pour the water, and measure how much sand washed to the bottom. That number is their data. **The skill is collecting it carefully so it can back up what they say later.**



Cause and Effect

"Cause and effect relationships are routinely identified, tested, and used to explain change."

Here's the big idea 4th graders carry out the door: the land didn't just change on its own. Something caused it. More water means more erosion. Plant roots holding the soil means less. **4th graders test the cause and watch the effect change.**