

Reinforcement

Autobiography of a Rock

Complete this worksheet after you finish reading the section “Weathering.”

The autobiography of Grant Stone, the first rock to learn to talk, has just been published. Grant has had a really interesting life! Below are some excerpts from Grant’s autobiography. After you read each excerpt, decide if Grant is telling a story about mechanical or chemical weathering, and circle the appropriate word. Then in the space provided, identify the cause of weathering: *abrasion, acids in living things, acid precipitation, ice wedging, or oxidation*. Be careful; one term will be used twice.

1. In my youth, I was part of a much larger rock on the side of a mountain. In the summer, small trickles of water would enter cracks in my surface; in the winter, the water would freeze. The cracks grew larger, until I eventually broke off the granite outcropping.

chemical or mechanical? _____

2. As I fell off the mountain, I caused a rock slide. There were hundreds of rocks, large and small, rolling down the mountain. We were bumping into each other and sliding all over. It was a regular rock stampede!

chemical or mechanical? _____

3. I stopped at the base of the mountain, on top of the pile of rocks. I spent many years there, and gradually, a colony of lichen began to grow on my side. They were easy to live with, but where the lichen grew, my edges became less sharp.

chemical or mechanical? _____

4. In one of my journeys, I met some rocks that were a beautiful red color. They told me they were made with a lot of iron, and the iron helped to cause their red coloration.

chemical or mechanical? _____

5. winter, the mountain had a much larger snowfall than usual, and the spring was stormy, with lots of rain. The rain and the snowmelt caused a flood, and I found myself in the bottom of a river, being jostled among more rocks and rubbed by silt.

chemical or mechanical? _____

6. Over time, that river changed course, and I was left in the open. In recent decades, I’ve started to crumble a little at the edges. I’m not sure what causes it, but I think it has something to do with the rain—the rain seems to do much more damage to me that it used to.

chemical or mechanical? _____