## John Muir Study Guide Science Lesson Plan Grade Eight John Muir on Avalanches

Throughout his life, John Muir had many thrilling and even dangerous adventures as he studied the natural world. In his attempt to study the nature of avalanches in the High Sierra Mountains of California, he had the opportunity to experience an avalanche firsthand. John Muir, it seems, was one of the world's earliest "extreme sports" enthusiasts!

Read this excerpt about John Muir's wild ride on an avalanche from his book *The Yosemite*. (1912):

"Few Yosemite visitors ever see snow avalanches and fewer still know the exhilaration of riding on them. In all my mountaineering I have enjoyed only one avalanche ride, and the start was so sudden and the end came so soon I had but little time to think of the danger that attends this sort of travel, though at such times one thinks fast. One fine Yosemite morning after a heavy snowfall, being eager to see as many avalanches as possible and wide views of the forest and summit peaks in their new white robes before the sunshine had time to change them, I set out early to climb by a side cañon to the top of a commanding ridge a little over three thousand feet above the Valley. On account of the looseness of the snow that blocked the cañon I knew the climb would require a long time, some three or four hours as I estimated; but it proved far more difficult than I had anticipated. Most of the way I sank waist deep, almost out of sight in some places. After spending the whole day to within half an hour or so of sundown, I was still several hundred feet below the summit. Then my hopes were reduced to getting up in time to see the sunset. But I was not to get summit views of any sort that day, for deep trampling near the cañon head, where the snow was strained, started an avalanche, and I was swished down to the foot of the cañon

as if by enchantment. The wallowing ascent had taken nearly all day, the descent only about a minute. When the avalanche started I threw myself on my back and spread my arms to try to keep from sinking. Fortunately, though the grade of the cañon is very steep, it is not interrupted by precipices large enough to cause outbounding or free plunging. On no part of the rush was I buried. I was only moderately imbedded on the surface or at times a little below it, and covered with a veil of back-streaming dust particles; and as the whole mass beneath and about me joined in the flight there was no friction, though I was tossed here and there and lurched from side to side. When the avalanche came to rest I found myself on top of the crumpled pile without bruise or scar. This was a fine experience. Hawthorne says somewhere that steam has spiritualized travel; though unspiritual smells, smoke, etc., still attend steam travel. This flight in what might be called a milky way of snow-stars was the most spiritual and exhilarating of all the modes of motion I have ever experienced. Elijah's flight in a chariot of fire could hardly have been more gloriously exciting. "

## Source:

http://www.sierraclub.org/john\_muir\_exhibit/writings/the\_yosemite/

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