

## How Yosemite Valley was Formed

*470 million years ago to today*



You can print this out and cut the pages so the text is underneath each image, laminate them, and use these as a teaching tool. Or, cut out ten cards and put the text on the back. Then mix them up and have students deduce the correct order.

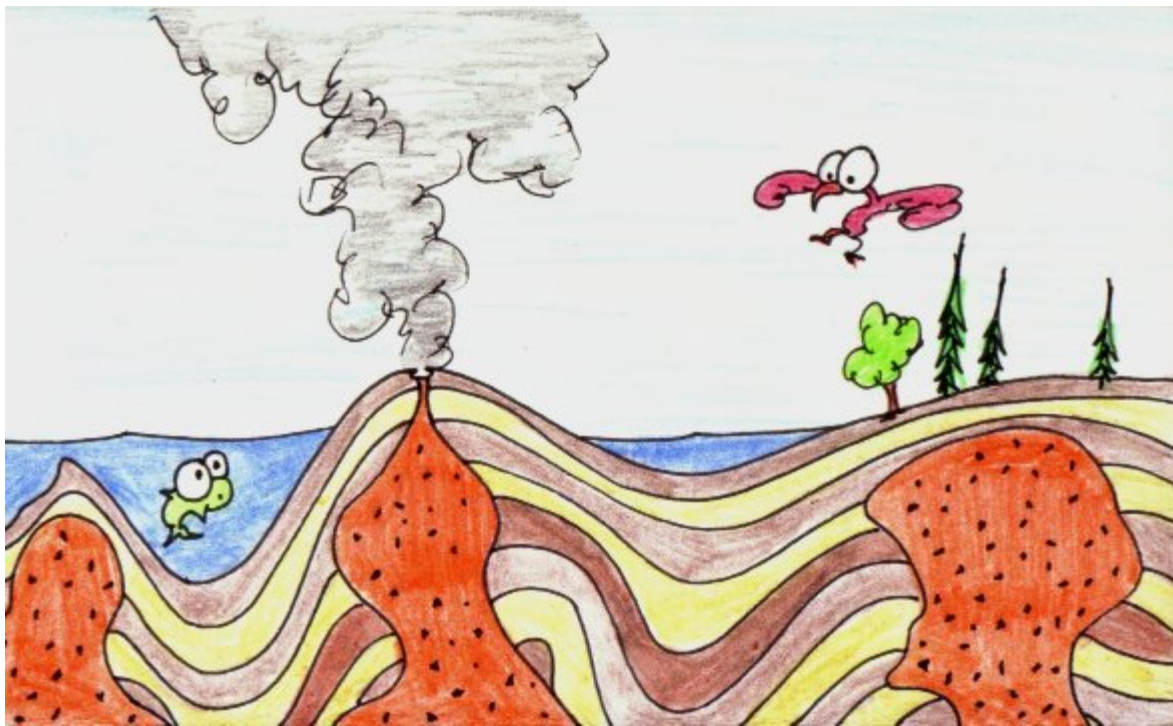




470 - 220 million years ago:

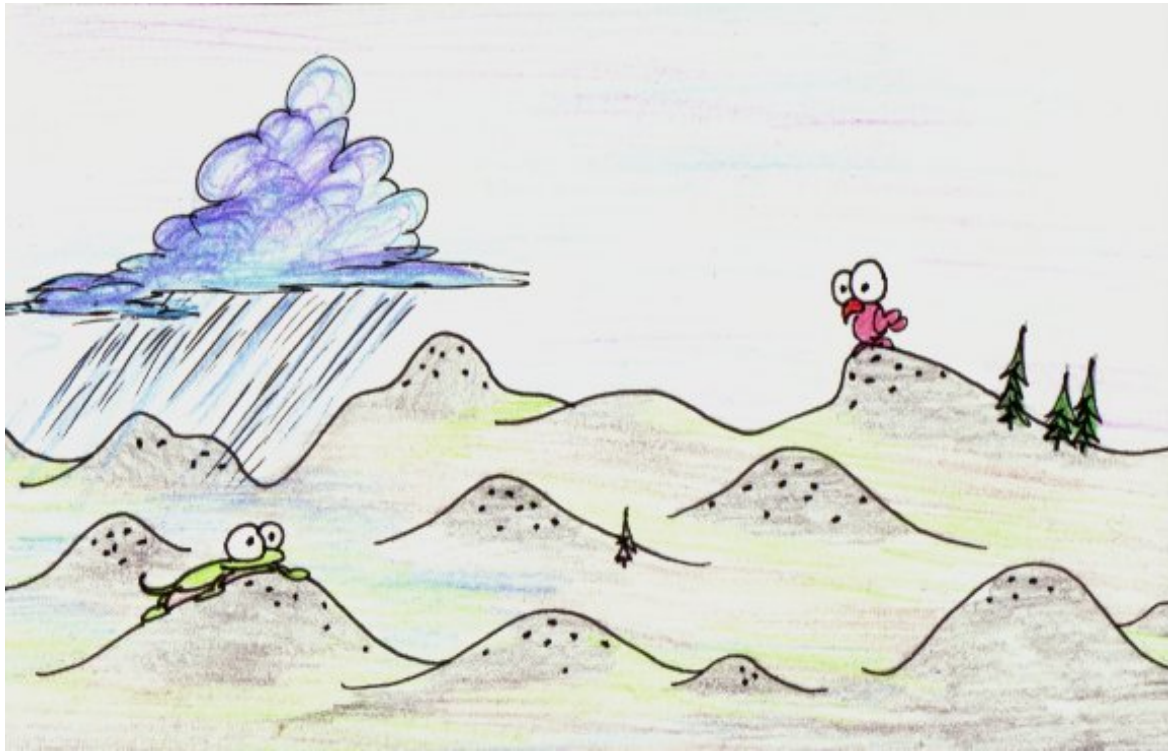
Layered sediments covered the sea floor west of the North American continent.

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220 - 80 million years ago:

Masses of molten magma rose from deep in the earth, pushing the layers of sediment up into mountains and breaking through as volcanoes.



80 - 25 million years ago:

Uplift and erosion stripped away most of the sedimentary layers, leaving the cooled magma (granite) exposed.

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25 million years ago:

Rolling hills and valleys covered the current Yosemite area, the Merced river flowed through a shallow valley.





25 to 10 million years ago:

The mountains were pushed up higher from an increase in activity below the earth's surface, causing the Merced river to dig deeper (erode) into its valley.

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10 - 2 million years ago:

The land continued to push up, the water continued to erode down. The V-shaped valley got deeper.



2 million years ago:

An ice age occurred. Glaciers from the highest parts of the Sierra Nevada grew so big that they flowed down through Yosemite Valley, widening and cutting the Merced river's path.

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20,000 years ago:

The glaciers melted out of Yosemite Valley.





10,000 years ago:

The glaciers melted and created Lake Yosemite, which filled the Valley. But the Merced river and small creeks were filling the lake with sediment...

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Today:

The sediment eventually filled Lake Yosemite and turned it into the meadows and forests of today.