



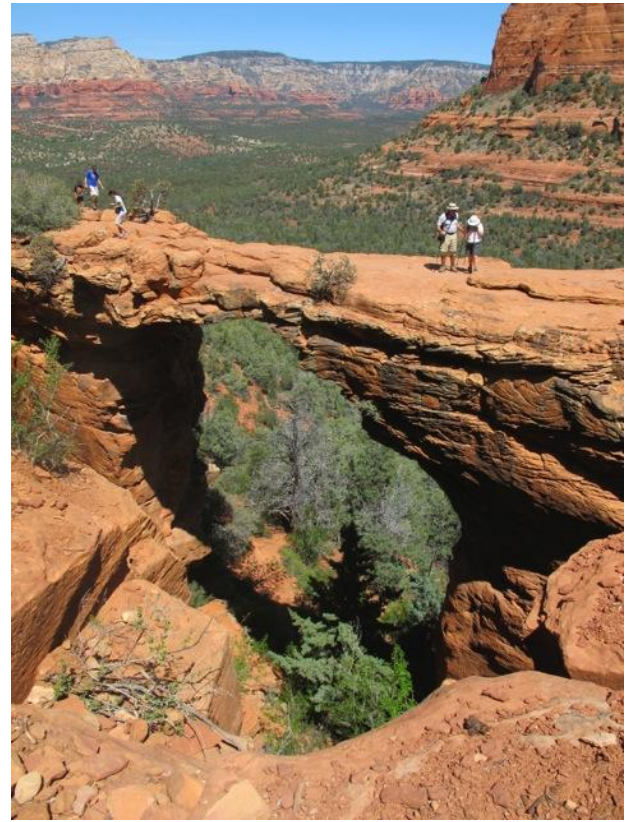
Arizona Rocks 16

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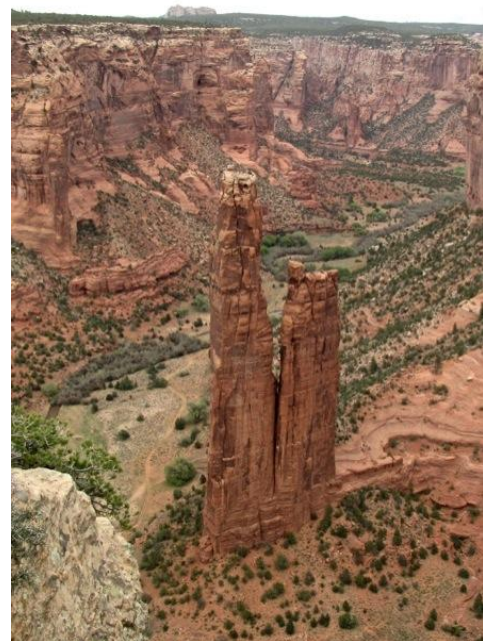
This month's rock is sandstone. It is a clastic sedimentary rock with particle sizes between 1/16 mm and 2 mm (1/12 of an inch). One sixteenth of a millimeter will not be visible without magnification but will feel slightly gritty like fine sandpaper. Sandstone of course will form from sand compressed and cemented together. Think of where we find sand, at the beach, in sand dunes, and in rivers, these are the types of places the sandstone formations we find in Arizona were formed. The common mineral in sandstone is quartz because the other minerals are soluble or weather to clay. (Note: there are names for sandstones where the sand grains are not quartz. If the sand is mainly feldspar the rock is arkose or arkosic sandstone and if the sand is rock fragments or minerals like mica the rock is called greywacke. Again these names are not commonly used unless a more detailed study has been made.)

The Coconino Sandstone, its eastern extension the DeChelly Sandstone, and the Navajo Sandstone are desert sand dune deposits. These dune fields covered large parts of Arizona, Utah, and New Mexico. The Tapeats Sandstone formed from beach sands. Some sandstone layers in the Supai group formed as river and delta deposits.

Because sandstone is resistant to weathering, it forms cliffs, canyons, arches, and natural bridges. Sandstone is responsible for a lot of the spectacular scenery in the Colorado Plateau that people travel here to see.



Devil's Bridge near Sedona, the rock is the Schnebly Hill Formation a mixed wind and marine deposited sandstone. The white layer in the background is the Coconino Sandstone.



Spider Rock in Canyon de Chelly, the rock is the De Chelly Sandstone a desert sand dune deposit.