

Stream Movement

Stream Geology Module



edu





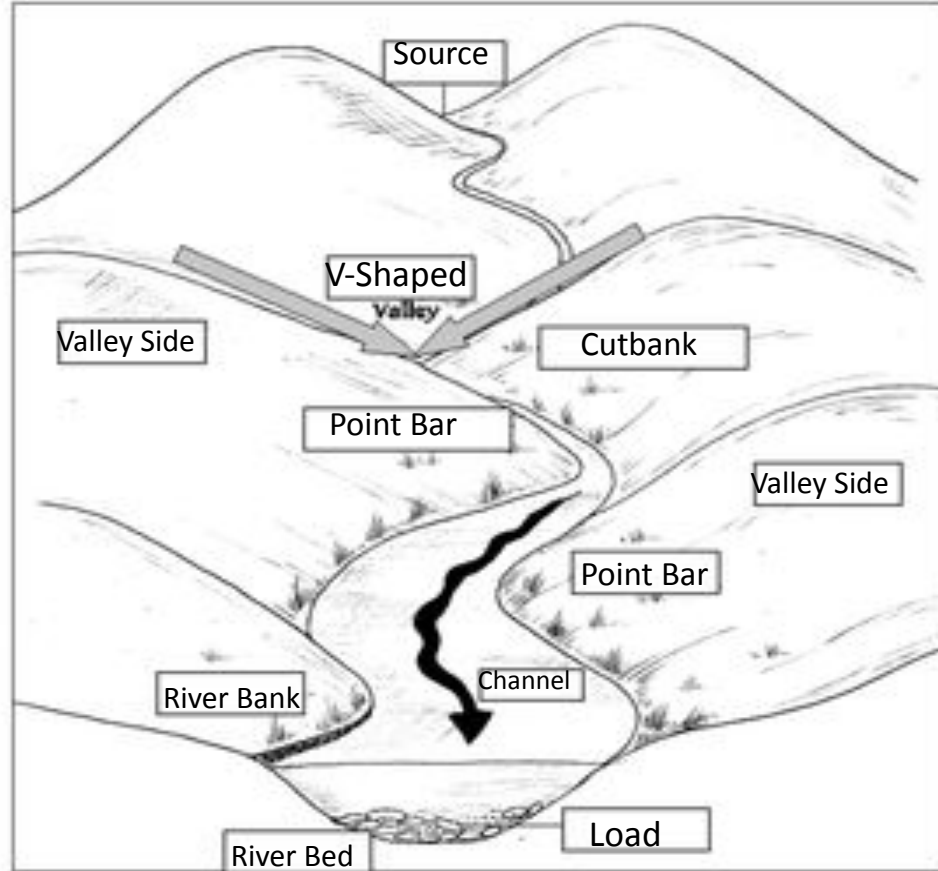


Diagram from: AQA Geography 1-9 Rivers Lesson 3: Upper Course Landforms and Features





Image From: <https://www.earthtrekkers.com/how-to-visit-grand-canyon-of-the-yellowstone/>



Image From: World of Waterfalls



Image From: <https://www.niagarafallslive.com/>



Image From: Project Watershed



Image From: National Geographic

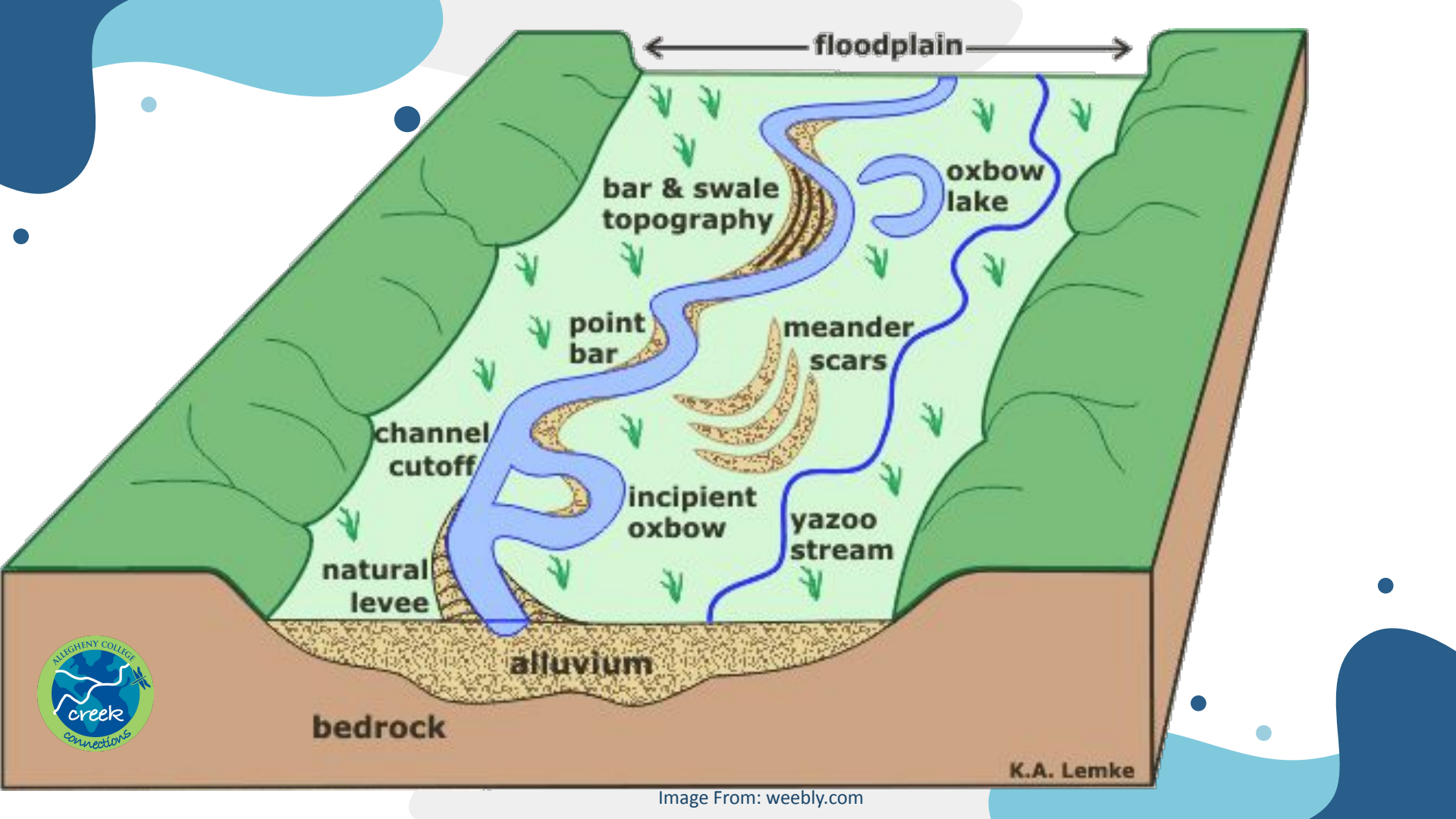
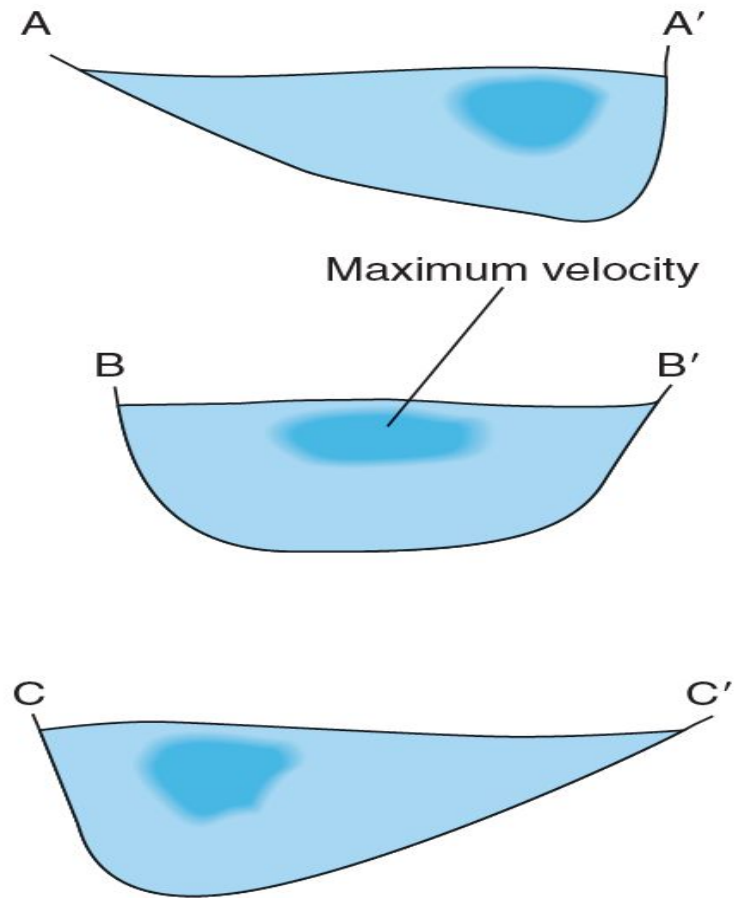
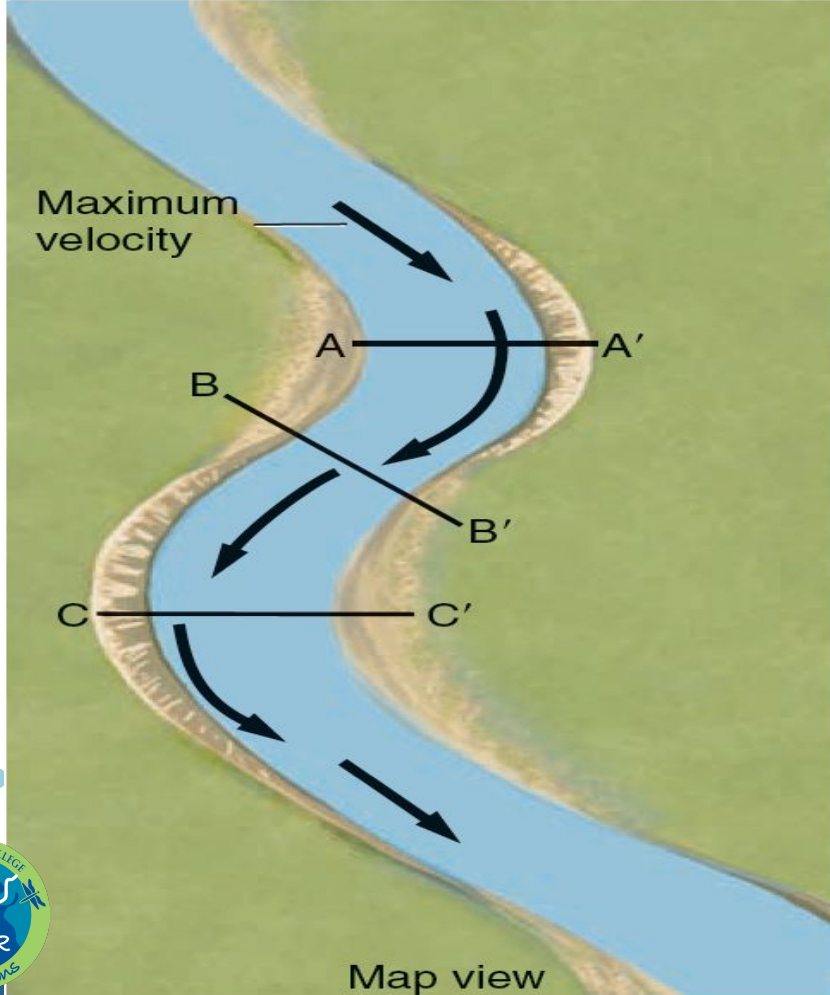


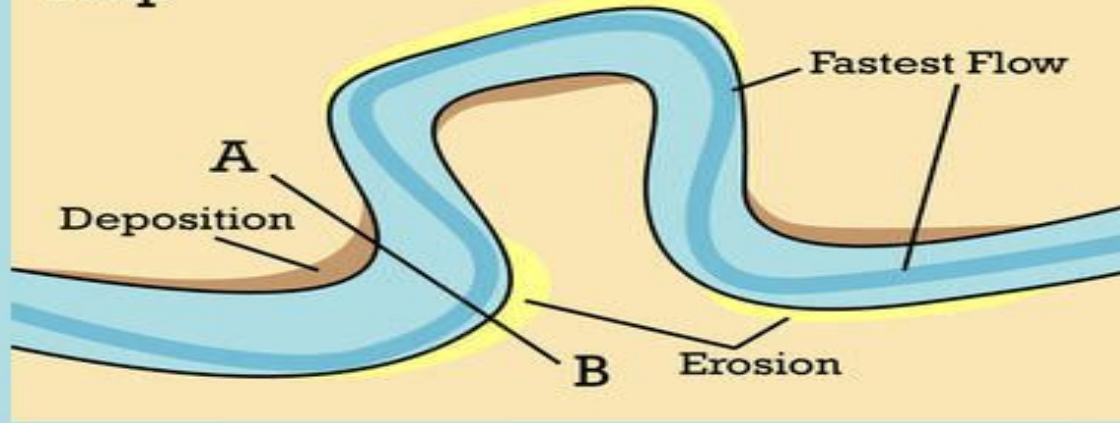
Image From: weebly.com



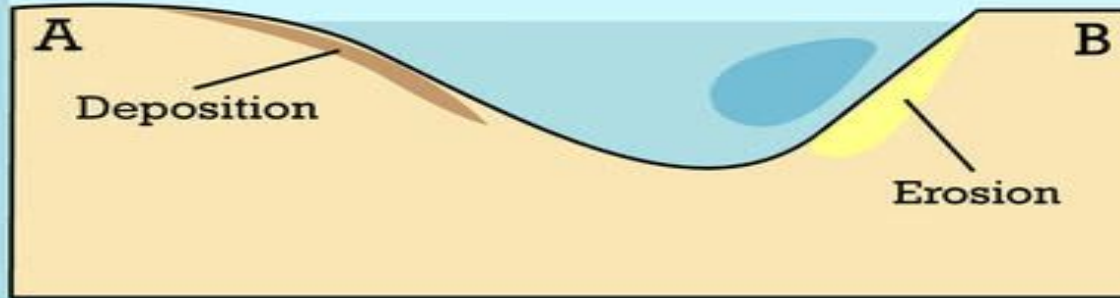
Cross sections



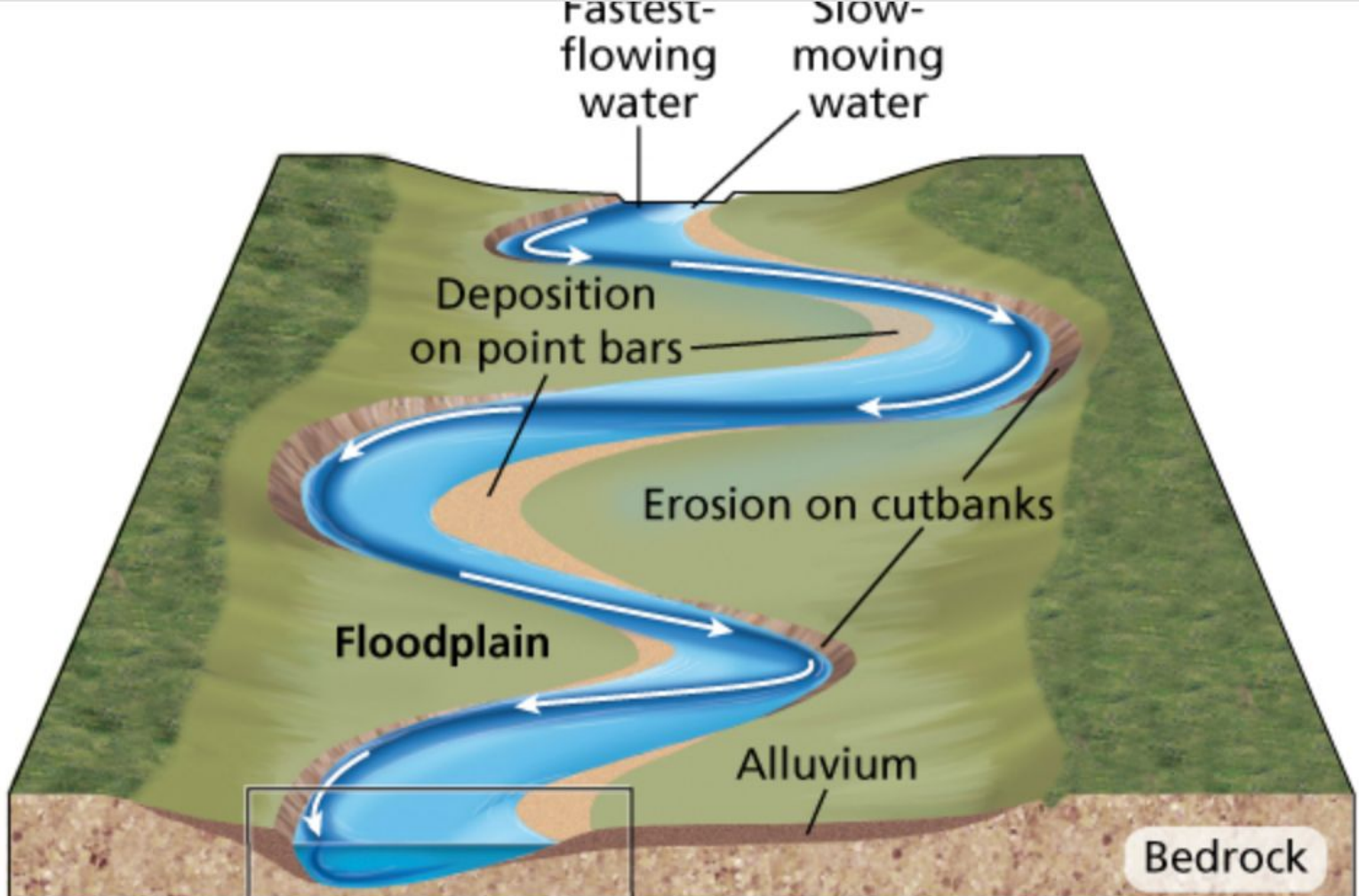
Map



Cross-section



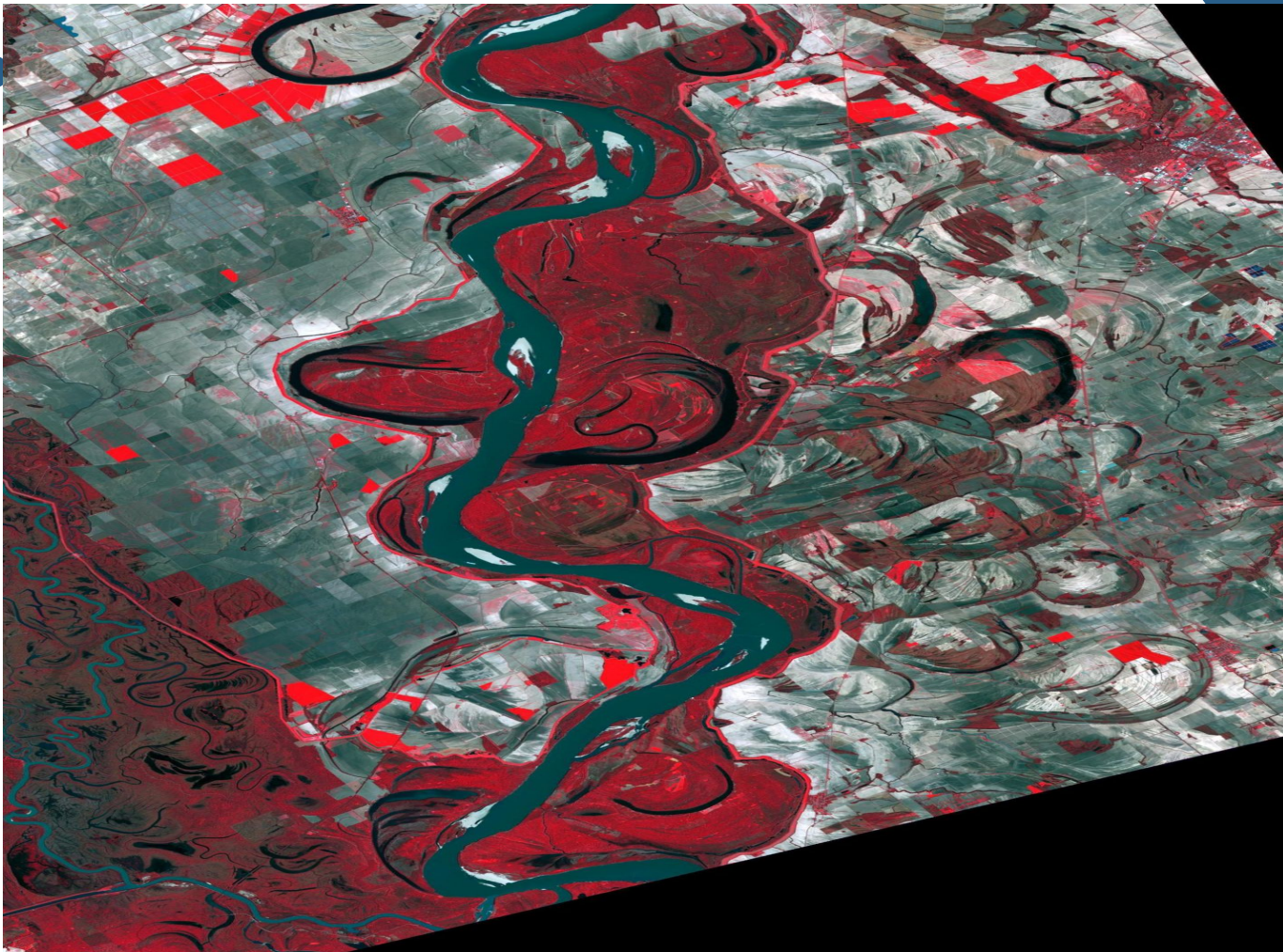




MEANDERING STREAM

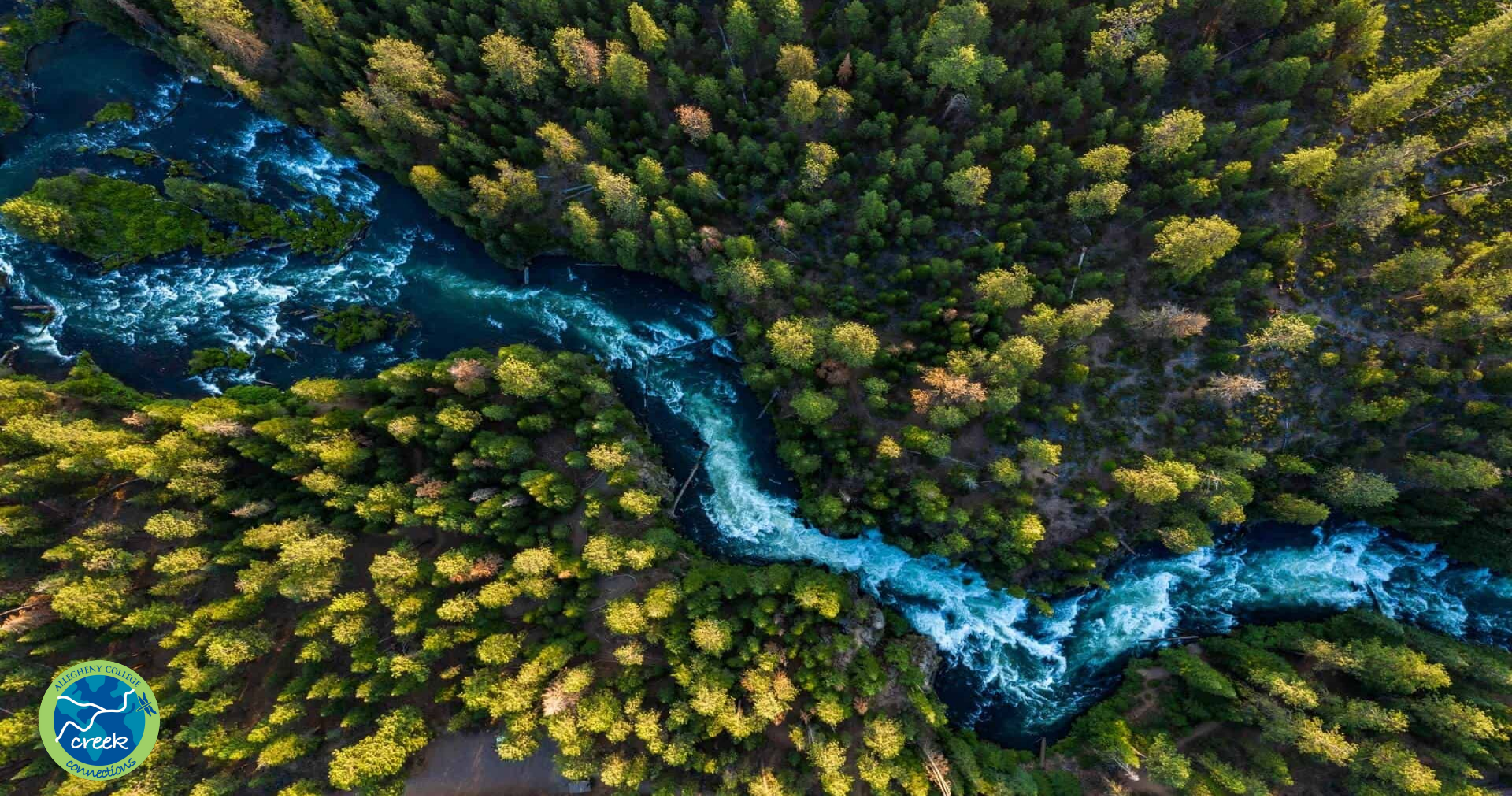






<https://www.jpl.nasa.gov/images/pia23534-mississippi-river>

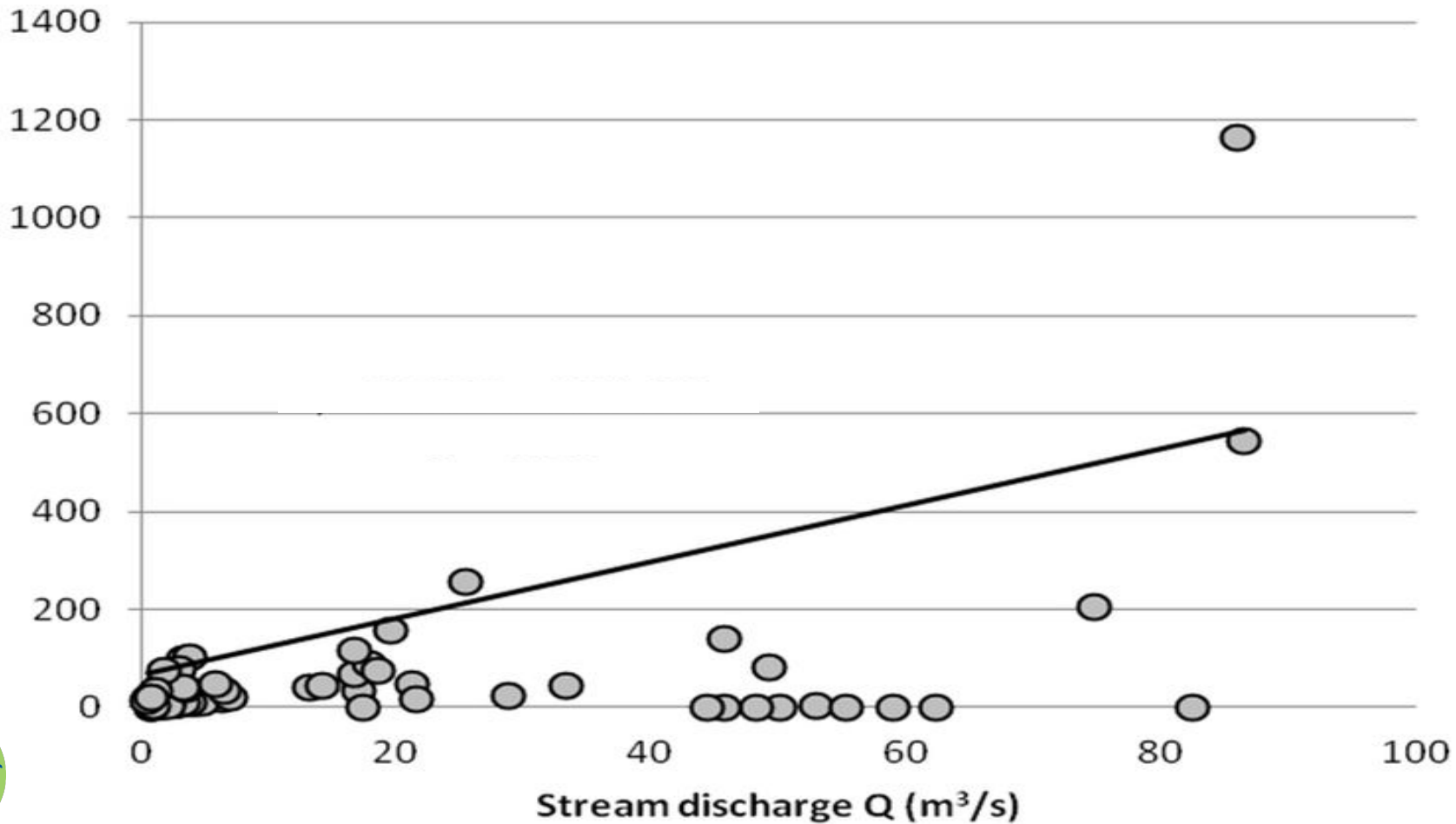




<https://visitcentraloregon.com/explore/rivers/>

Suspended load transport rate

m_s (g/s)





GRAVEL



SAND



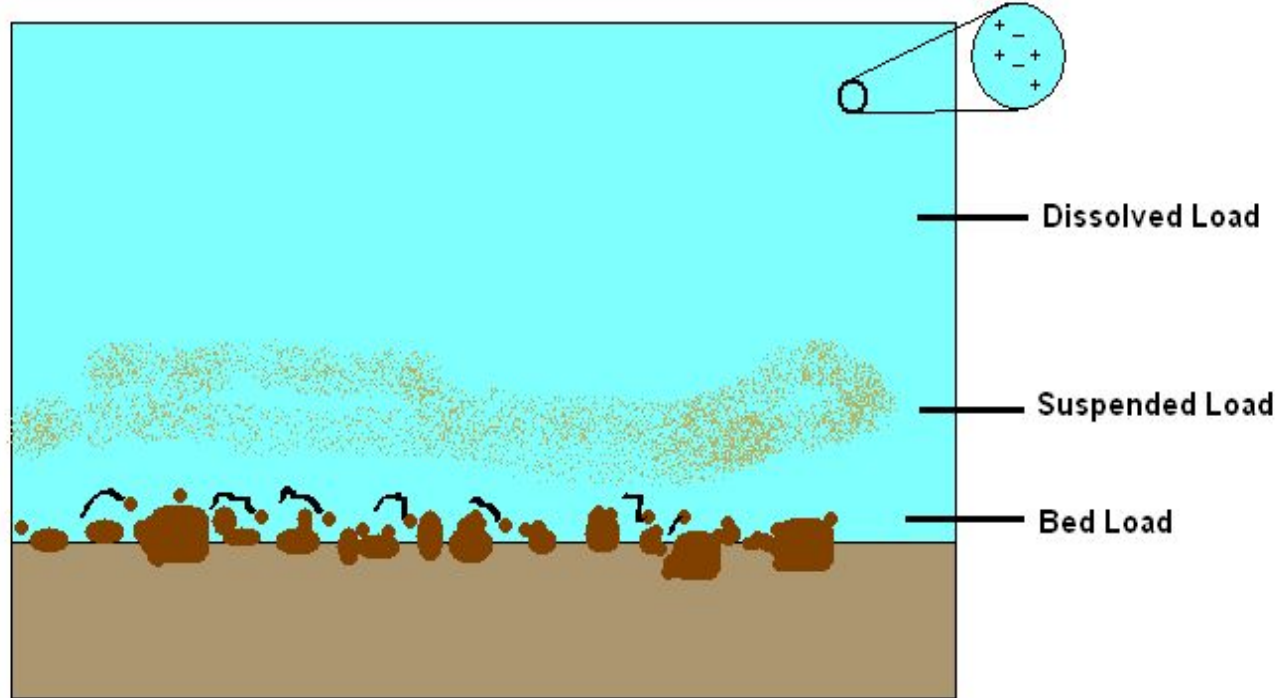
SILT



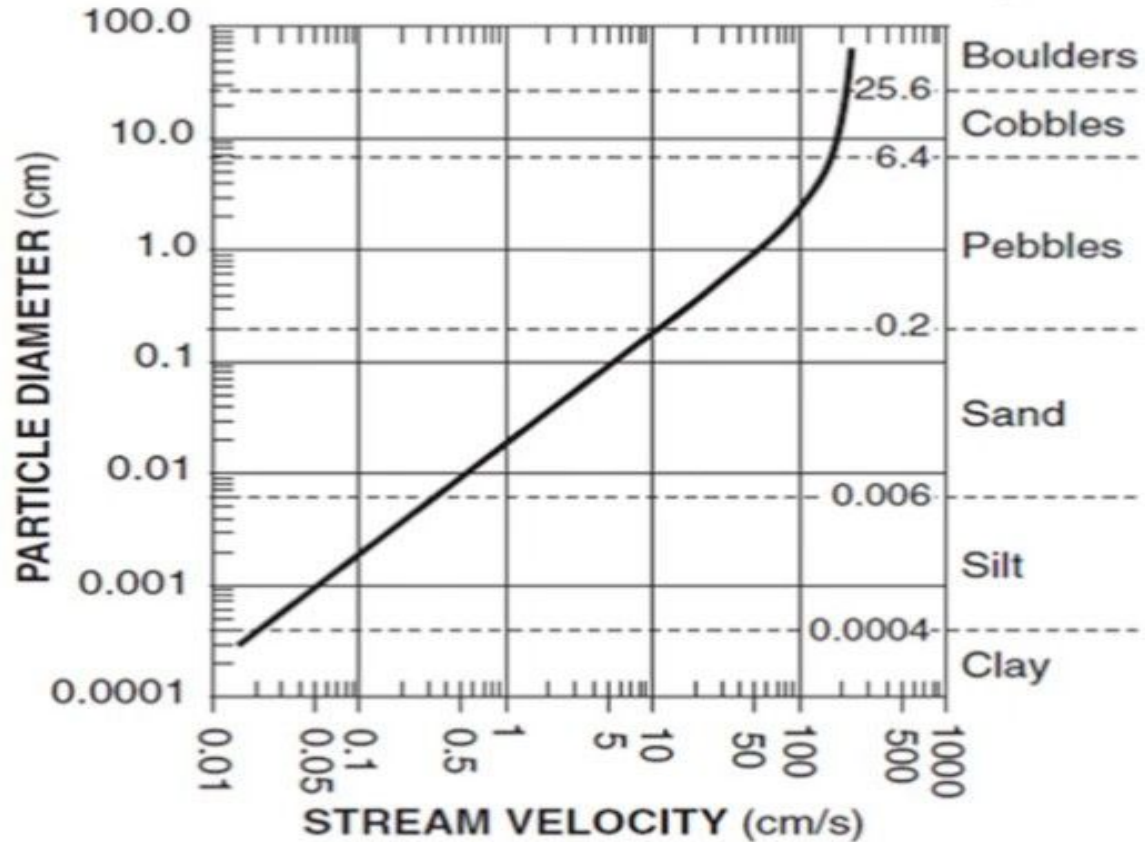
CLAY

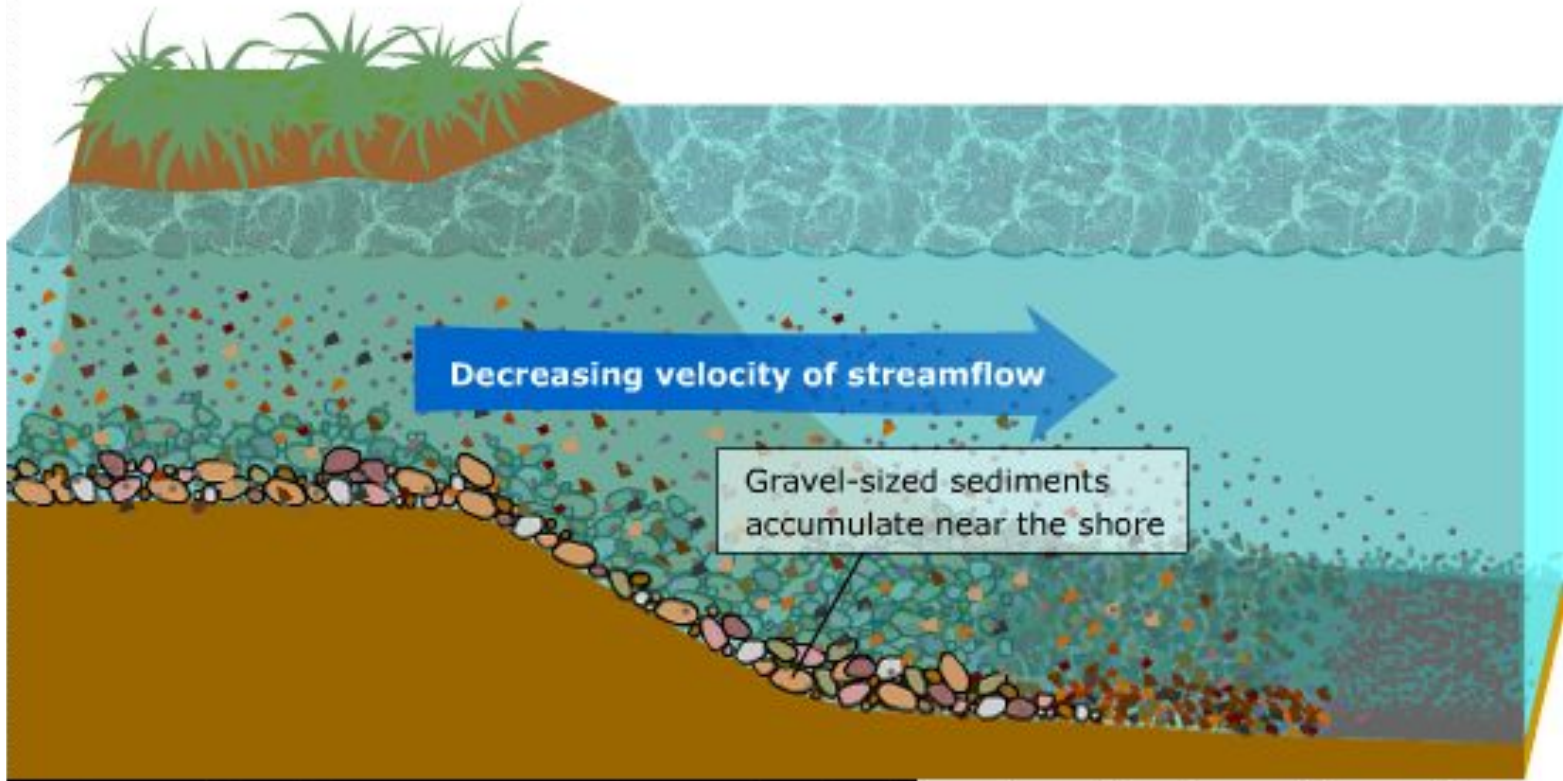


ALGAE



Relationship of Transported Particle Size to Water Velocity





Decreasing velocity of streamflow

Gravel-sized sediments accumulate near the shore

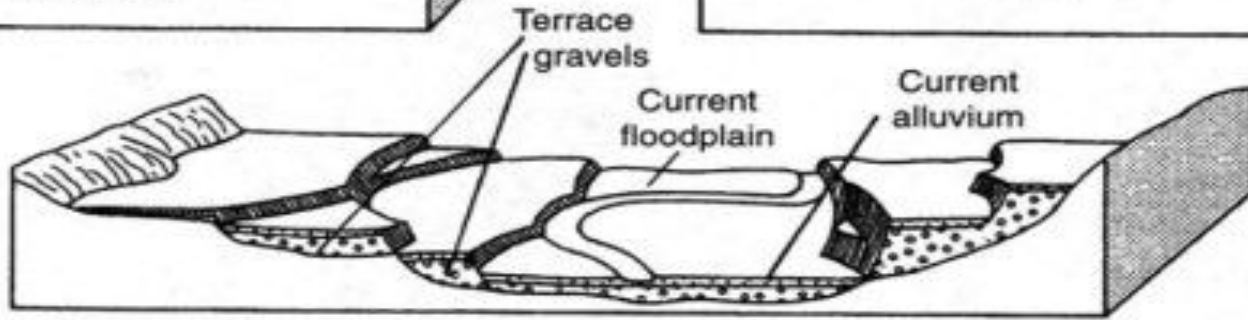
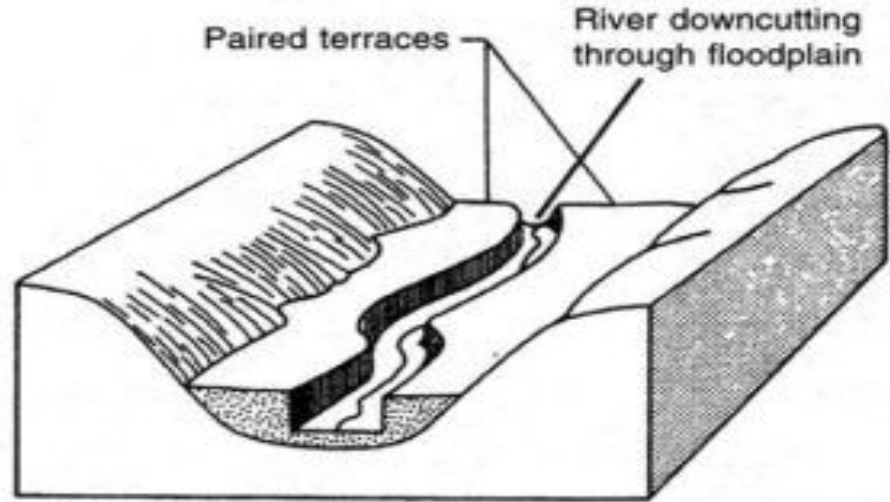
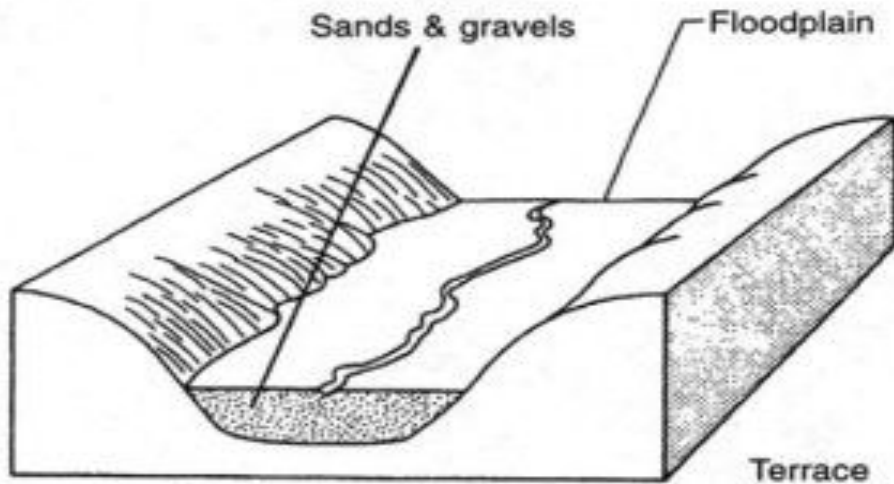
 = gravel-sized sediments	 = sand grains	 = clay-sized particles
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Lenni Armstrong, informmation





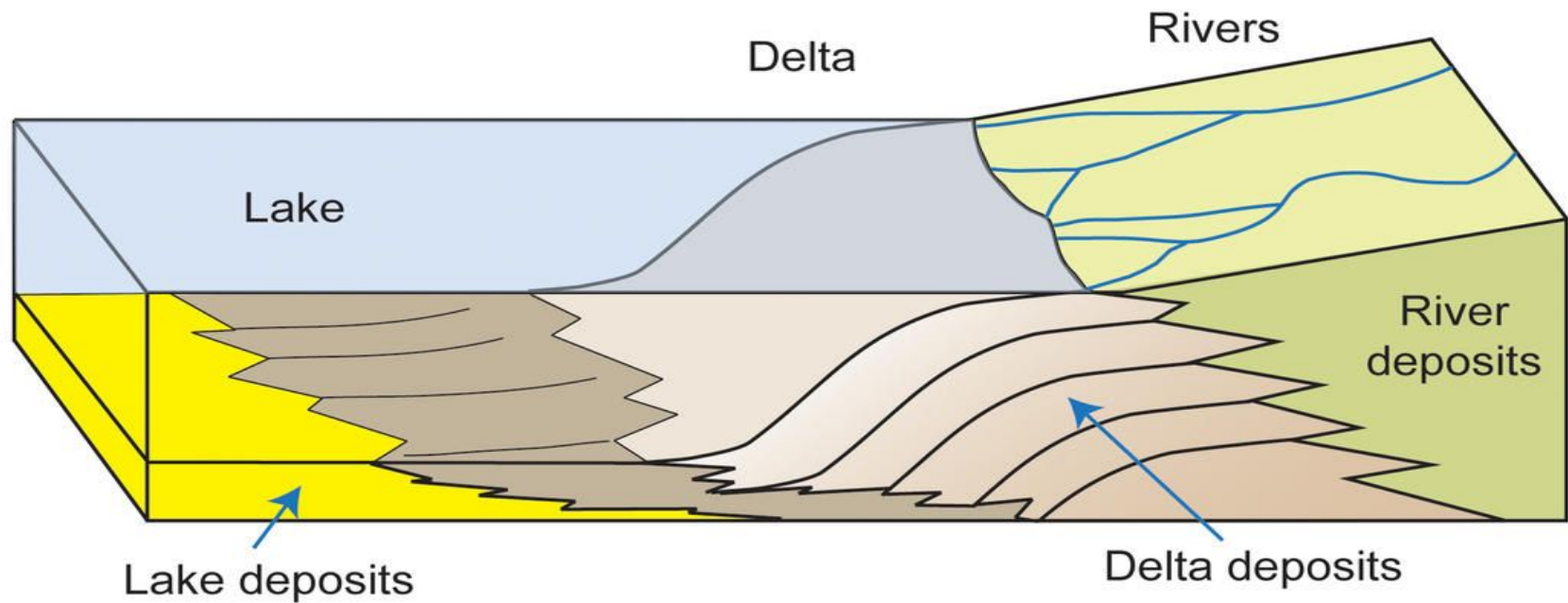
<https://www.grandcanyontrust.org/blog/why-little-colorado-river-so-blue>

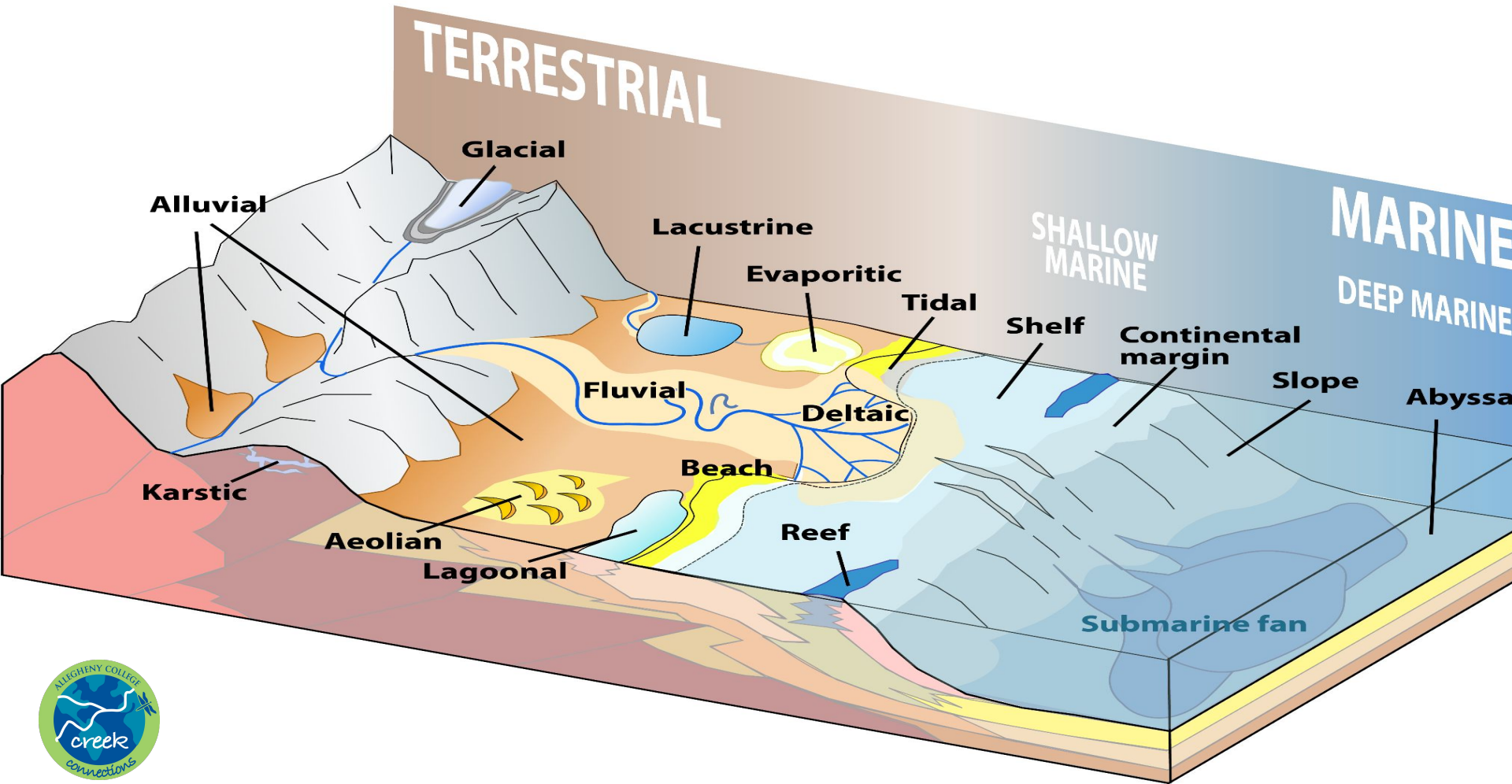






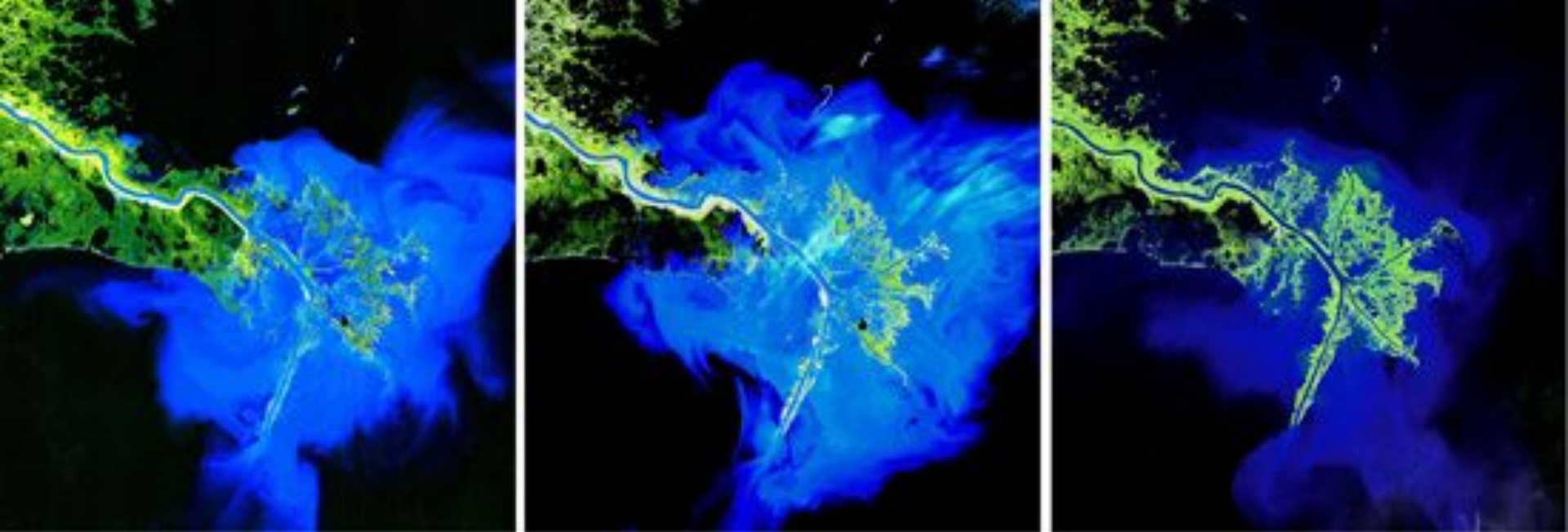
<https://www.usgs.gov/media/images/mount-st-helens-and-north-fork-toutle-river-channel>







<https://www.over-view.com/overviews/mississippi-river-delta>

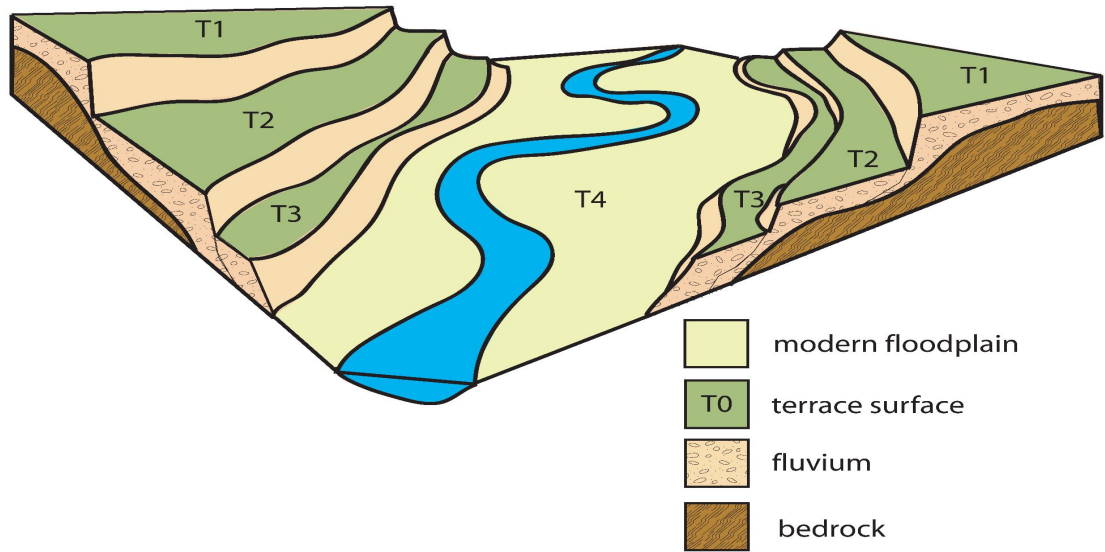


<https://www.usgs.gov/media/images/landsat-images-change-mississippi-delta-usa>

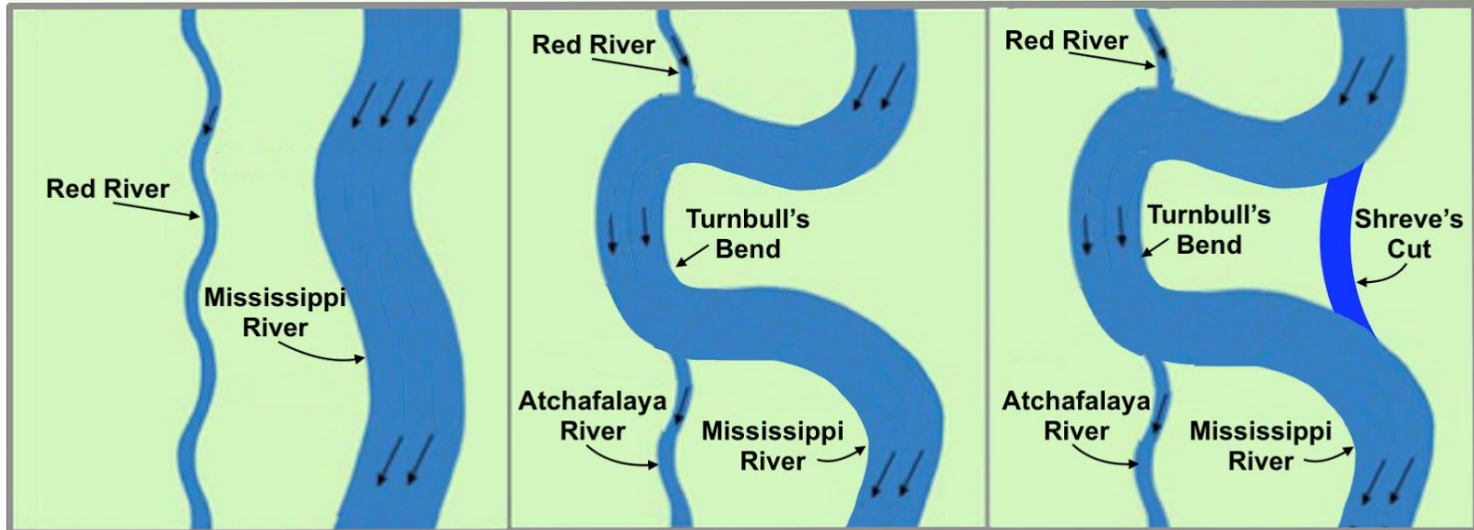




FLOOD PLAINS



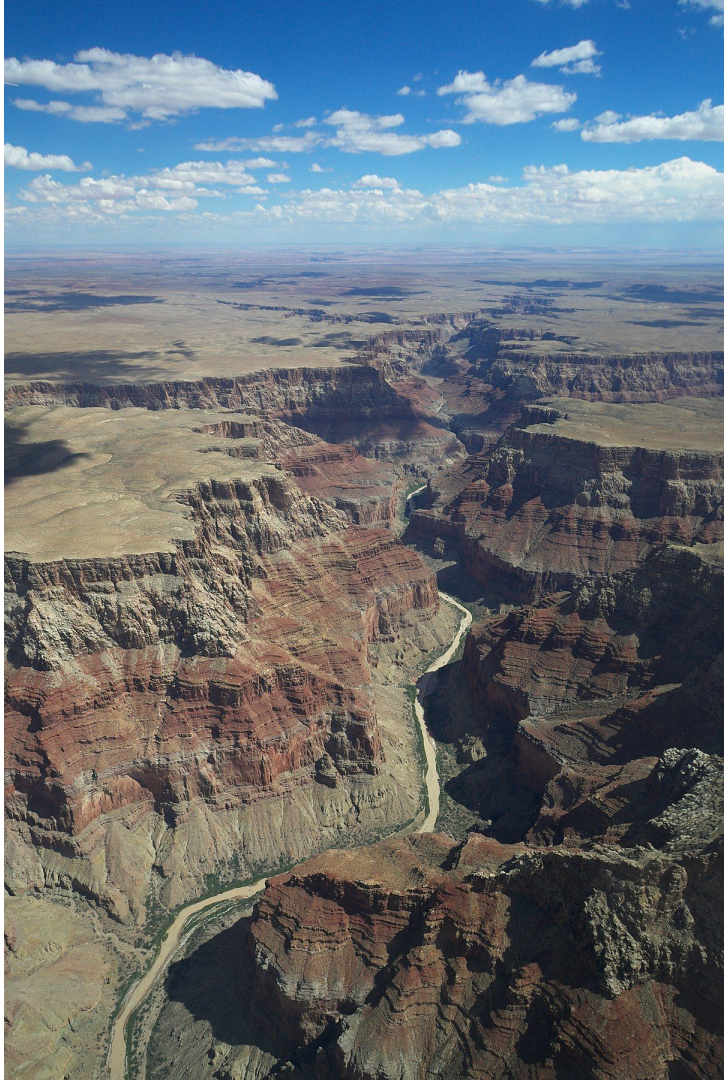
Four Rivers Feed the Lower Mississippi River







<https://yellowstone.co/rivers/gibbon.htm>

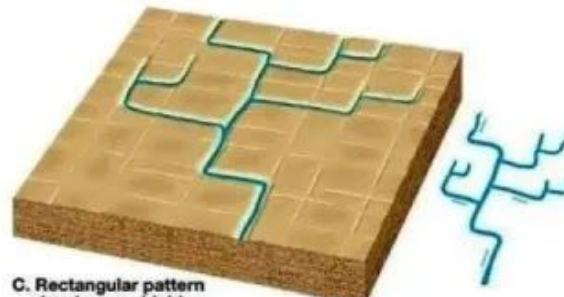




Drainage patterns



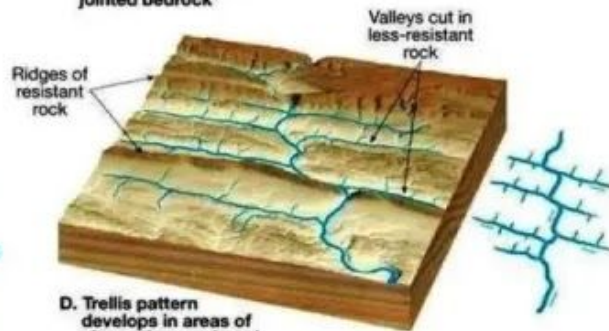
A. Dendritic pattern
develops on relatively
uniform bedrock



C. Rectangular pattern
develops on highly
jointed bedrock



B. Radial pattern
develops on isolated
volcanic cones or domes



D. Trellis pattern
develops in areas of
alternating weak and
resistant bedrock



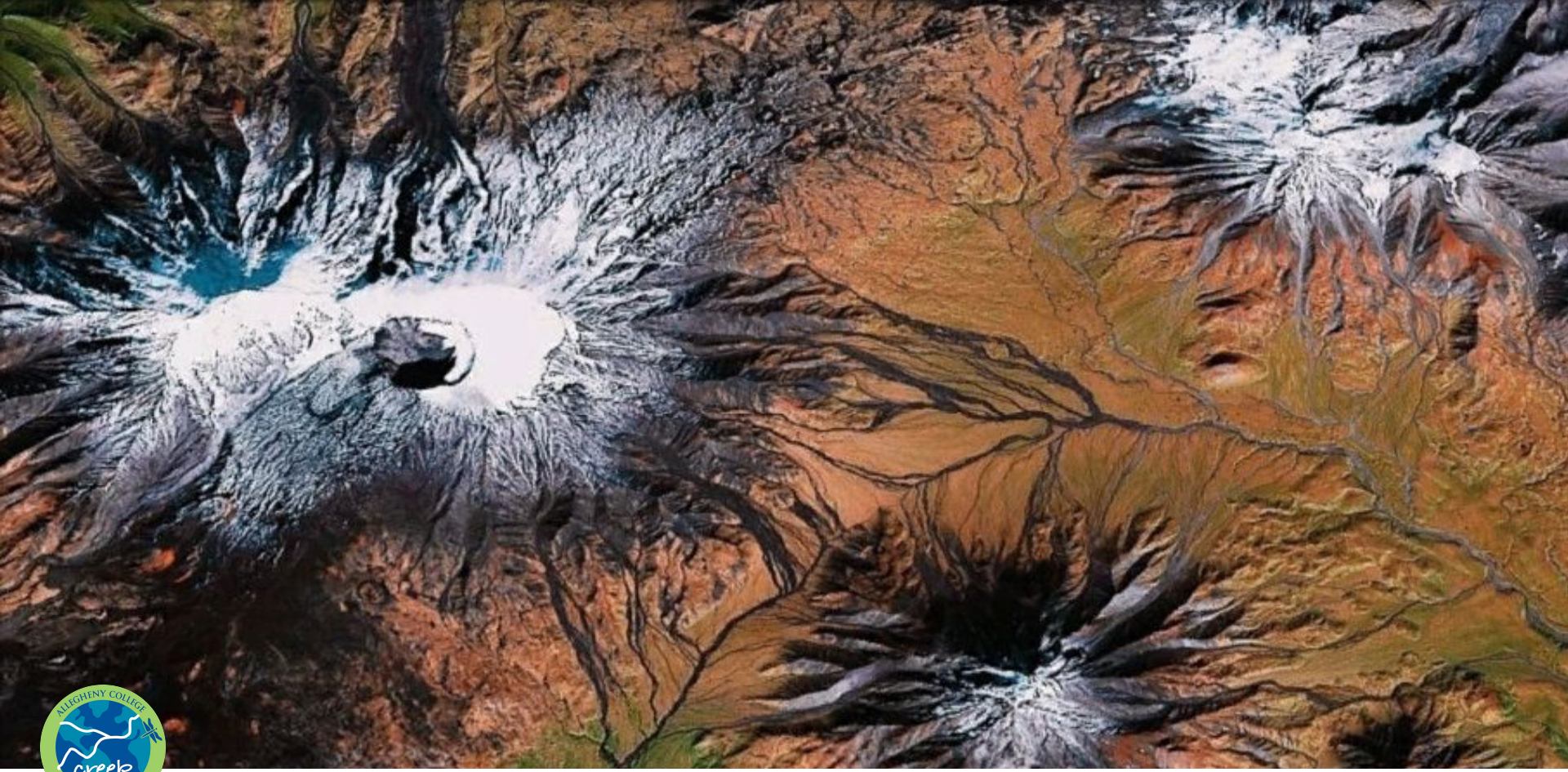
http://www.vias.org/spacetriple/earth_yemen.html



https://www.youtube.com/watch?app=desktop&v=Se5aaaXDje8&ab_channel=BHOSEIN



<https://storymaps.arcgis.com/stories/a417f5734eb34b7480670fb5aa2c9957>



<https://impossiblegeology.net/geopathology/radial-drainage-on-three-volcanoes-kamchatka>



In conclusion...

Moving water is a major factor in sculpting our landscape.

Waterways produce valleys, floodplains, and alluvial fans through the process of erosion and deposition of sediments. This constant carving and settling means that our landscape is continuously changing.

