

Sedimentary Rock Dichotomous Key

Texture	Grain Size	Composition	Other Observations	Number(s)
Clastic/Detrital	≥2mm, boulders, gravel, embedded in a sandy, silty, or clayey mass	Made out of quartz, feldspar, and clay. Fragments of rocks and minerals	Rounded fragments	
			Angular fragments	
	Sand sized particles, feels like sandpaper		Fine to coarse grained, Arkose (if pink in color)	
	Silt sized particles, feels like dried mud. Fragments are not really visible		Mudstone, Siltstone, Claystone	
	Clay sized particles. Feels more like pottery or adobe		Shale	
Crystalline	Not really relevant. Grain and crystal sizes can vary.	Halite	Rock Salt	
		Gypsum	Rock Gypsum	
		Dolomite	Dolostone	
		Chert or Silica	Chert or Flint	
Bioclastic	Not	Calcite	Limestone, travertine (cave formations)	
		Shells and Calcite	Coquina	
		Carbon	Coal	

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Teacher Reflection, Instructions, and Suggestions

- They will complete this activity after reading and discussing the section on sedimentary rocks. <http://earthscience.xyz/SedimentaryRocks>
- I have 8 rock kits in my classroom. Each kit contains 6 or more sedimentary rocks.
- Students are seated in table groups of 3 or 4.
- I have the students round robin identify the rocks at their table, silently without any help from others for about 20 minutes.
- I then have them compare their answers with the group for about 10 minutes. The group now needs to make a decision as to which rock names all their rocks belong.
- Once they are satisfied, they get with another group and compare their rocks to each other, placing all the rocks that are, say coquina together to verify how similar their rocks are and then to come up with a consensus. This takes up about 15 minutes.
- For me the answers are not the most important part of this activity. Their ability to observe, infer, and make conclusions is what I am assessing. I also like the discussion between each other at a group and then at a larger group.