Sedimentary Rock Classification Chart

Class	Grain size/ texture		Properties and Distinguishing Features	Sedimentary Rock Name
Siliciclastic	**Gravel** (grains > 2 mm)		Rounded rock and mineral fragments, usually in a finer sand matrix	Conglomerate
			Angular rock and mineral fragments, usually in a finer sand matrix	Breccia
	Sand (grains easily seen)		Rounded quartz grains, well sorted. Color variable depending upon the type of cement. May contain sedimentary structures. Red: iron oxide cement; white: quartz cement; yellow: limonite cement etc.	Pure white sandstone (Quartz Arenite)
			Rounded grains of quartz and other minerals. "salt & pepper " appearance. Color tan to green or red due to iron oxide staining.	Lithic Sandstone
			Angular to sub-angular grains, abundant feldspar. Usually pink to gray in color and poorly sorted.	Arkose
			Various minerals and grains mixed with clay\mud matrix. Poorly sorted, grey to green in color. May be laminated.	Greywacke
	Silt (grains can be felt)		Variable hardness (H = 2 to 7), and color. Grains cannot be seen, but may be felt or "tasted". Commonly laminated.	Siltstone
	Mud (grains can't be seen)		Soft (H= 2 to 3), variably colored. Grains cannot be seen, felt or "tasted". Laminated to fissile. Green color caused by reduced iron; red by oxidized iron; black by organics.	Shale
Biochemical	**Limestone**	**Gravel** (grains > 2 mm)	Variably sized shells and other fossils in typically finer-grained matrix. Usually blue-gray to gray in color.	Fossiliferous Limestone
			entirely composed of abraded and rounded shell "hash". Contains little or no matrix. White to tan in color.	Coquina
		Sand (grains easily seen)	Spherical, very well-sorted grains with concentric layers (ooids). white to beige to grey in color.	Oolite (Oolitic Limestone)
		Mud (grains can't be seen)	Very fine-grained, white to gray, limestone devoid of obvious fossils. Variable hardness (H = 1 to 3). Fizzes with acid.	Non-fossiliferous Limestone
			Very fine-grained, usually soft (H = 1 to 2), white to gray to brown, limestone containing microscopic fossils. Strongly fizzes with acid.	Chalk
Chemical	**Evaporites**		Fine to coarsely crystalline, pink, gray or brown. Usually lacks fossils. Does <u>not</u> fizz with HCl unless powdered	Dolostone (Dolomite)
			Crystalline, soft (H=2.5), white to gray. Tastes salty.	Halite
			Crystalline, soft (H=2.5), red to white. Tastes bitter-salty.	Sylvite
			Crystalline, soft (H=2), white to gray. Many contain sand.	Gypsum
			Crystalline, medium hardness (H = 3-3.5), white to gray. Forms aggregate masses.	Anhydrite
			Alternating layers of Earthy white gypsum and gray calcite. Soft (H=2 to 3), Fizzes with HCl.	Banded Gypsum
	Others		Hard (H=7), conchoidal fracture, variable color (gray to brown). Petrified wood variety displays cellular structure.	Chert
			Fine to coarsely crystalline, yellow to white, lacks fossils but does contain growth bands. Frequently stalactitic.	Travertine
Organic	**Fibrous, earthy, metallic** or **resinous** appearance		Brown, visible plant fibers, very soft, light weight	Peat
			Brown to brown-black. Harder than peat. Rare plant fossils	Lignite
			Black, Earthy luster, no plant remains preserved	Bituminous Coal
			Steel gray to black, hard (H=4), metallic luster	Anthracite
			Yellow to orange, low Sp. G. and soft material. Resinous luster.	Amber