Sedimentary Rocks Lab **Names** _____ _____

	Clastic/Organic/Chemical	Grain Size and/or Composition	Rock Name	Environment of Deposition
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

breccia *coal-bituminous* *conglomerate* *coquina* *fossil limestone* *limestone* *petrified wood* *sandstone* *shale* *travertine*

Clastic - Parts of other rocks? **Organic** - Plants or shells? **Chemical** - An undistinguishable mass?

Grain Size *coarse* >2mm *medium*=1/16-2mm *fine*=1/16-1/256mm *very fine* < 1/256 **Composition** - What does it appear to be made of… if you can determine this.

Environment of Deposit river, deep ocean, shallow sea, land surface, sand dune, etc. Answer this AFTER figuring out the name of the rock.

QUESTIONS

1. With your sandstone under the scope, put a drop of water on it. Describe what happens.

2. With our shale under the scope,, put one drop of water on it. Describe what happens.

3. Explain why the water behaves differently with shale & sandstone.

4. Another <u>permeable</u> rock from this lab is _____

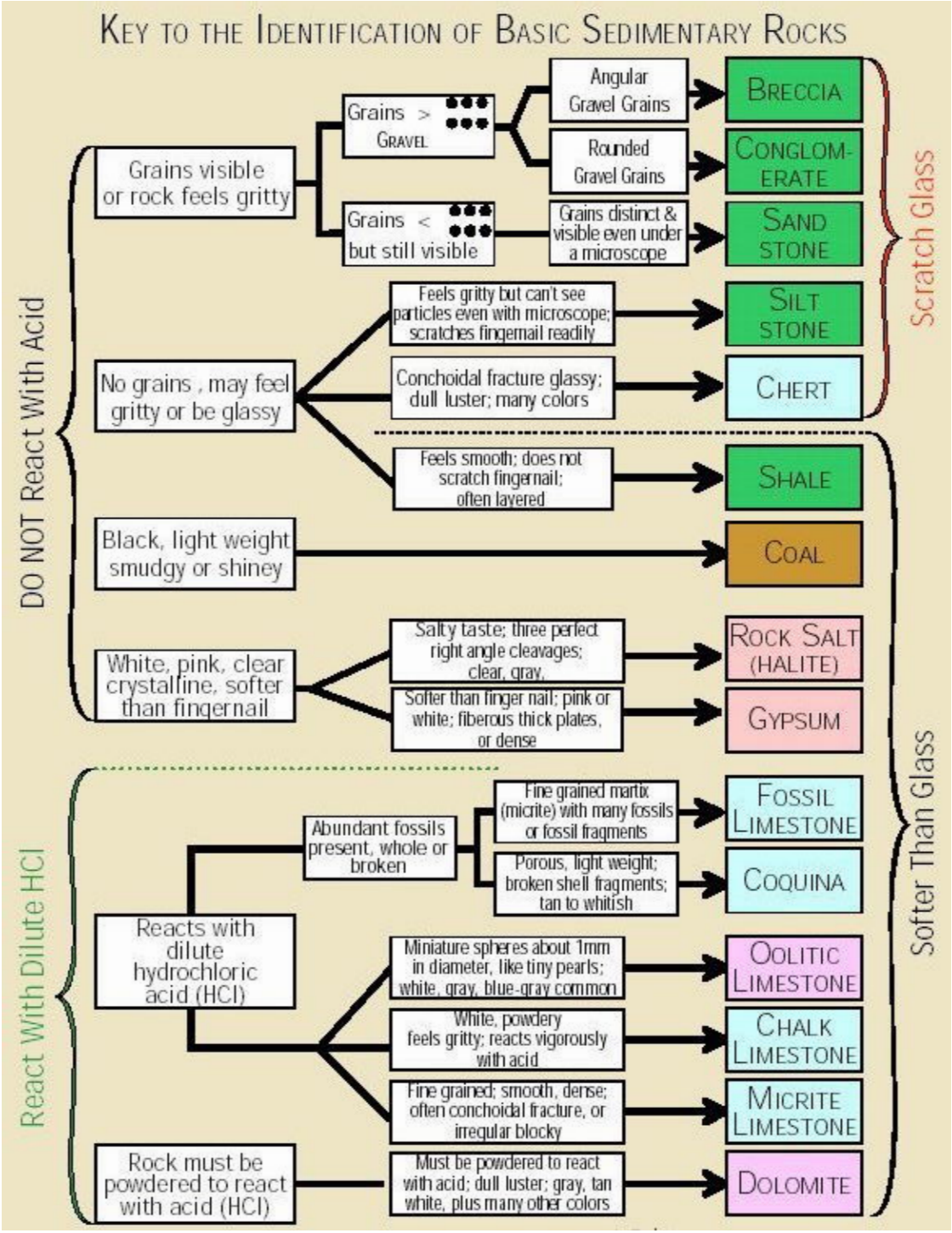
5. Another <u>impermeable</u> rock from this lab is _____

6. Observe the sandstone under the scope. Are the grains rounded or angular?

7. What does this tell you about how the sandstone formed?

8. Wet the shale, scratch, and sniff. What do you notice?

9. Why might it smell this way?



Observations of Each Sedimentary Rock Under the Stereoscope

Use your scope to record observations about each sedimentary rock - clasts, size, pores, water behavior, crystals, grain shape, i.e., round vs angular, etc. Low -> high power.

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

10 _____

11 _____

12 _____

13 _____

14 _____

On the back sketch of each rock as it appears under the scope and label the power used. Attach those drawings to your lab.

1. Name _____, ____X

2. Name _____, _____ X

3. Name _____, _____ X

4. Name _____, ____X

5. Name _____, _____ X

6. Name _____, _____ X

7. Name _____, ____X

8. Name _____, _____ X

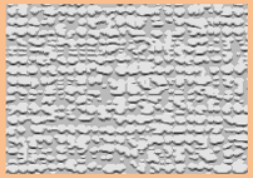
9. Name _____, _____ X

10. Name _____, ____X

11. Name _____, _____ X

12. Name _____, _____ X

Clastic Sedimentary Rocks

Texture (grain size)		Sediment Name	Rock Name
Coarse (over 2 mm)		Gravel (rounded fragments)	Conglomerate
		Gravel (angular fragments)	Breccia
Medium (1/16 to 2 mm)		Sand	Sandstone
Fine (1/16 to 1/256 mm)		Mud	Siltstone
Very Fine (less than 1/256)		Mud	Shale

Chemical Sedimentary Rocks

Composition	Texture (grain size)	Rock Name	
Calcite	Fine to coarse crystalline	Crystalline Limestone	
		Travertine	
	Shells and cemented shell fragments	Coquina	Biochemical Limestone
	Shells and shell fragments cemented with calcite cement	Fossiliferous Limestone	
	Microscopic shells and clay	Chalk	
Quartz	Very fine crystalline	Chert (light color) Flint (dark color)	
Gypsum	Fine to coarse crystalline	Rock Gypsum	
Halite	Fine to coarse crystalline	Rock Salt	
Altered plant fragments	Fine-grained organic matter	Bituminous Coal	