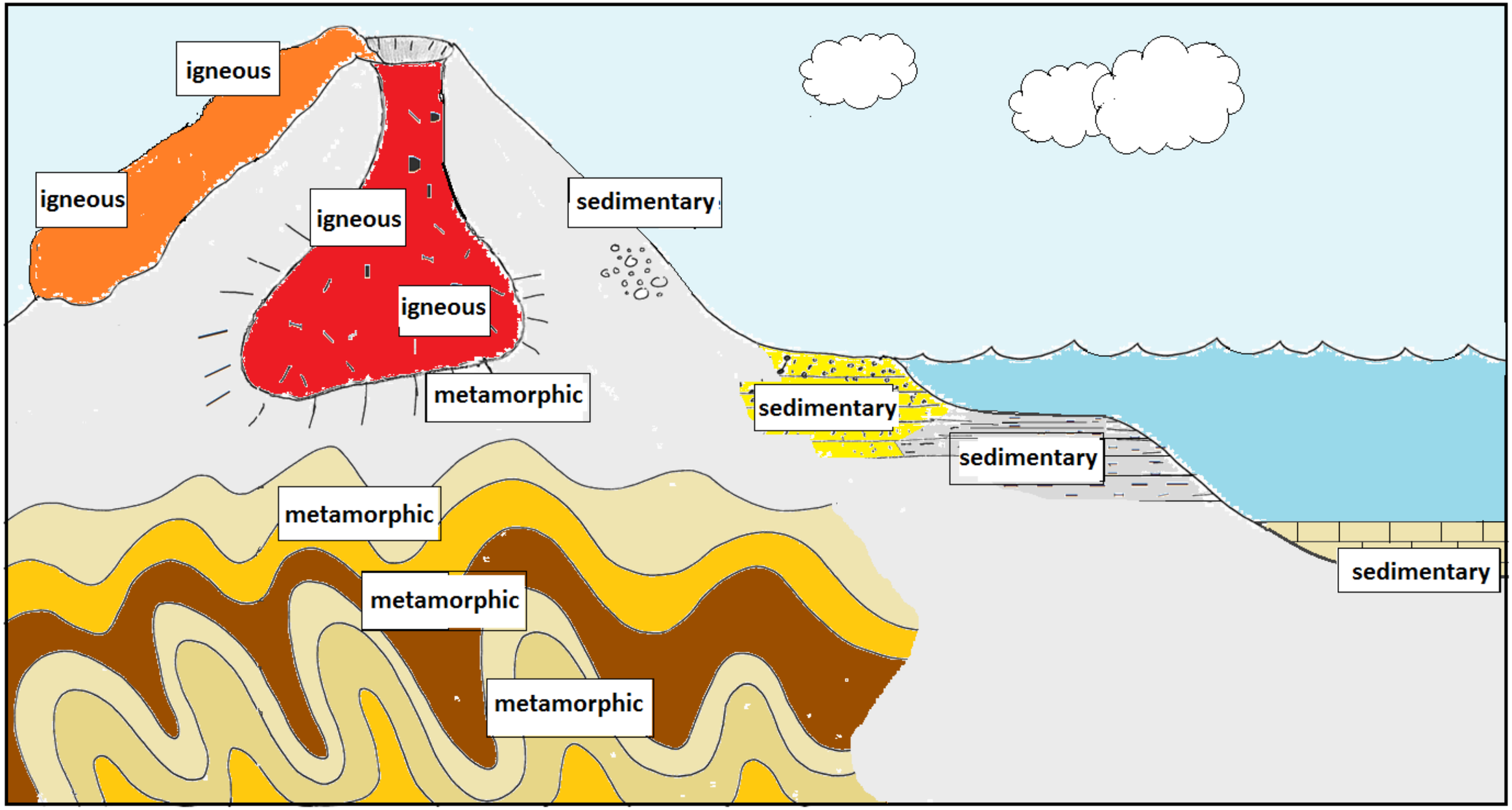
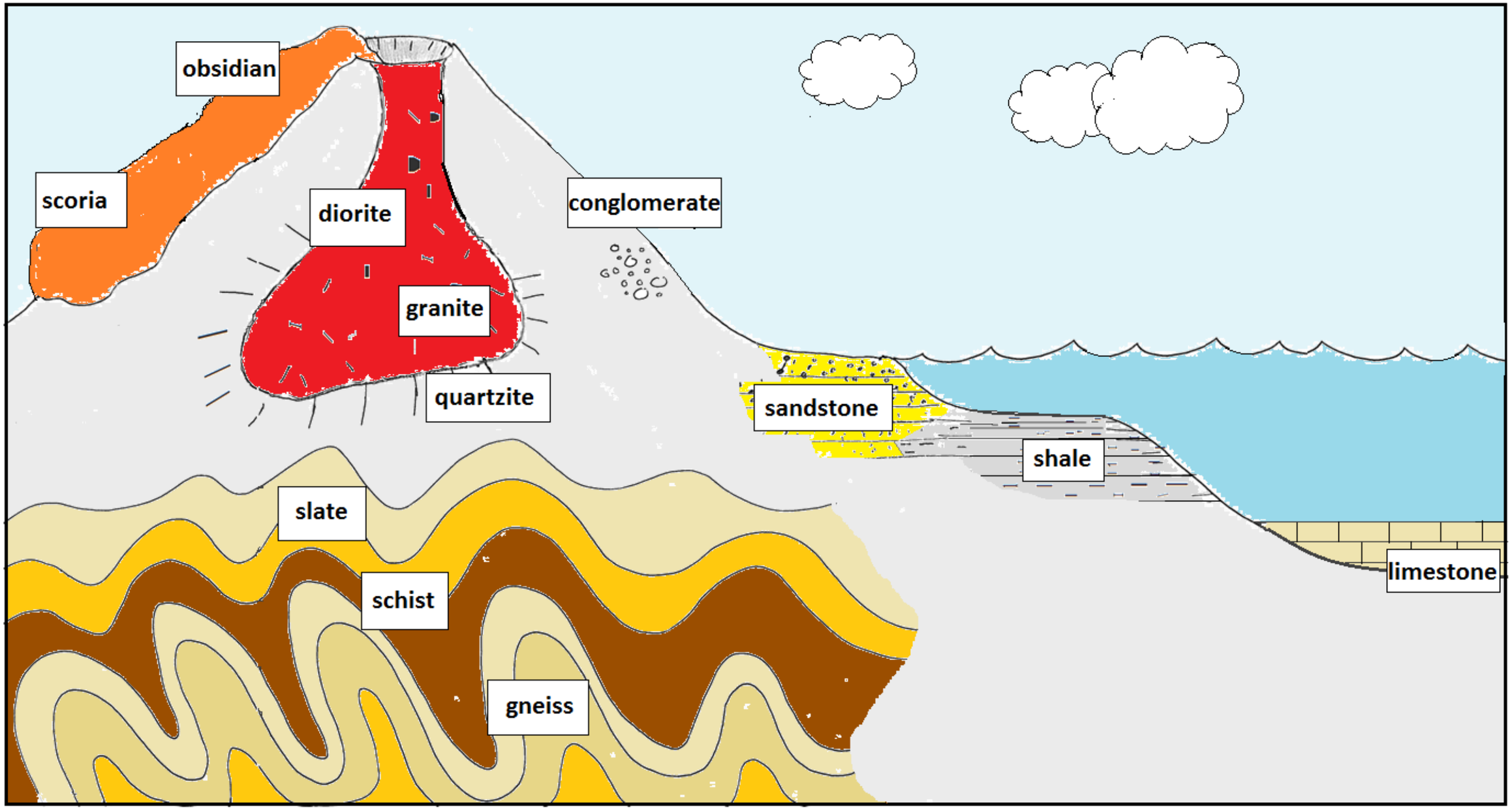
Rock Formation Card




obsidian
scoria
diorite
granite
quartzite
conglomerate
sandstone
shale
limestone
slate
schist
gneiss

Identifying Rock Types Activity (upper elementary)

Rock Types	Rock Sample Numbers											
I=igneous **S**=sedimentary **M**=metamorphic	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Using above properties determine the Rock Type	I	M	S	S	S	S	I	M	I	M	I	M

Rock Identification in baggies as follows:

1. granite
2. gneiss
3. conglomerate
4. limestone
5. shale
6. sandstone
7. obsidian
8. quartzite
9. diorite
10. slate
11. scoria
12. schist

Rock type	Classification (how formed)	Identifying features		Rock Name
		grain size	**colors**	
Igneous	**Intrusive**: cools slower underground, crystals big enough to see	crystals bigger than small sand grains	black/white or pink/black/white	granite
			black/white	diorite
	Extrusive: cools quickly above ground, crystals too small to see	crystals too small to see & gas bubble holes	usually black but can be reddish if oxides	scoria
		no crystals	usually black	obsidian
Sedimentary	**Clastic:** sediment grains pressed or rock fragments cemented back together	small individual grains	white, tan or reddish	sandstone
		very small grains, can't see them	dark gray to black	shale
		large and small rounded grains	various individual grain colors	conglomerate
	Chemical: dissolved minerals precipitate out of water	very small, usually can't see grains	usually white or tan	limestone
Metamorphic	**Foliated:** rocks become layered due to high heat and pressure	very small, thin layers	light gray or black	slate
		very small with thicker layers	alternating layers with different colors	gneiss (nice)
		flattened layers that sparkle	usually light white/silver or dark black/green	schist
	Nonfoliated: rocks are heat altered, or chem. reaction	crystal edges blend together, usually don't see individual crystals	white color or pink/purple	quartzite

Identifying Rock Types Activity (upper elementary)

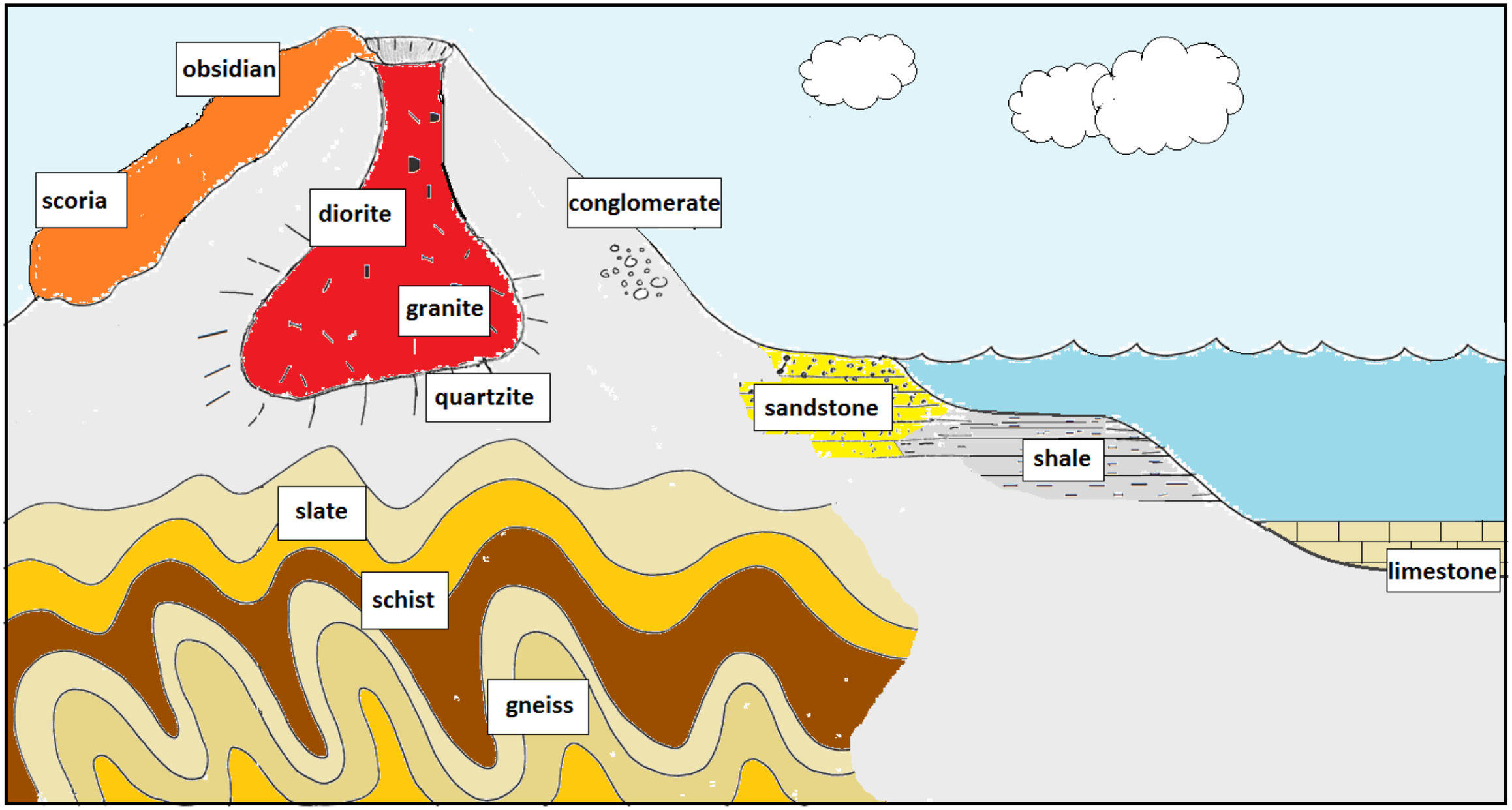
Rock Types	Rock Sample Numbers											
I=igneous **S**=sedimentary **M**=metamorphic	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Using above properties determine the Rock Type	I	M	S	S	S	S	I	M	I	M	I	M

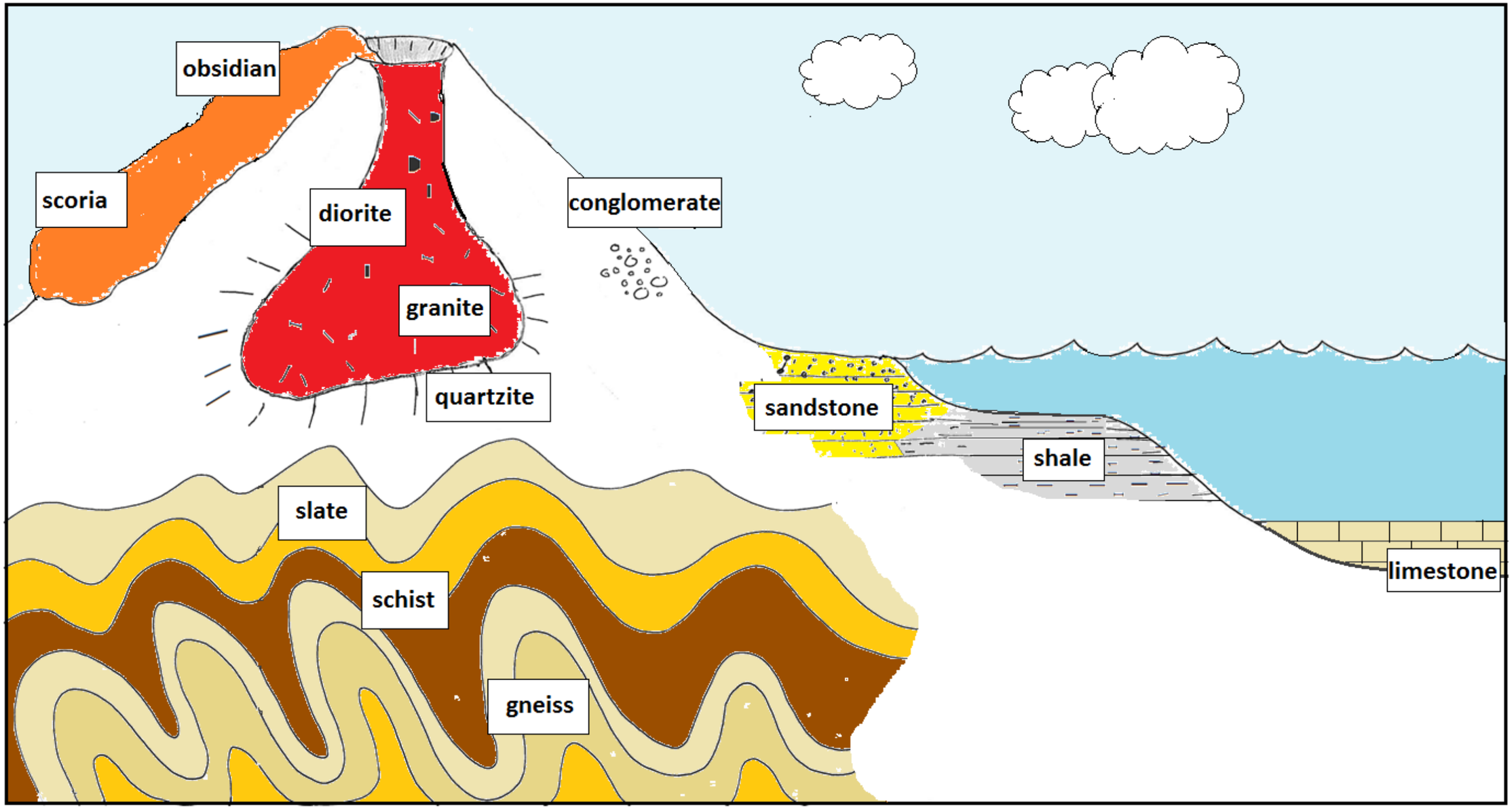
Rock Identification in baggies as follows:

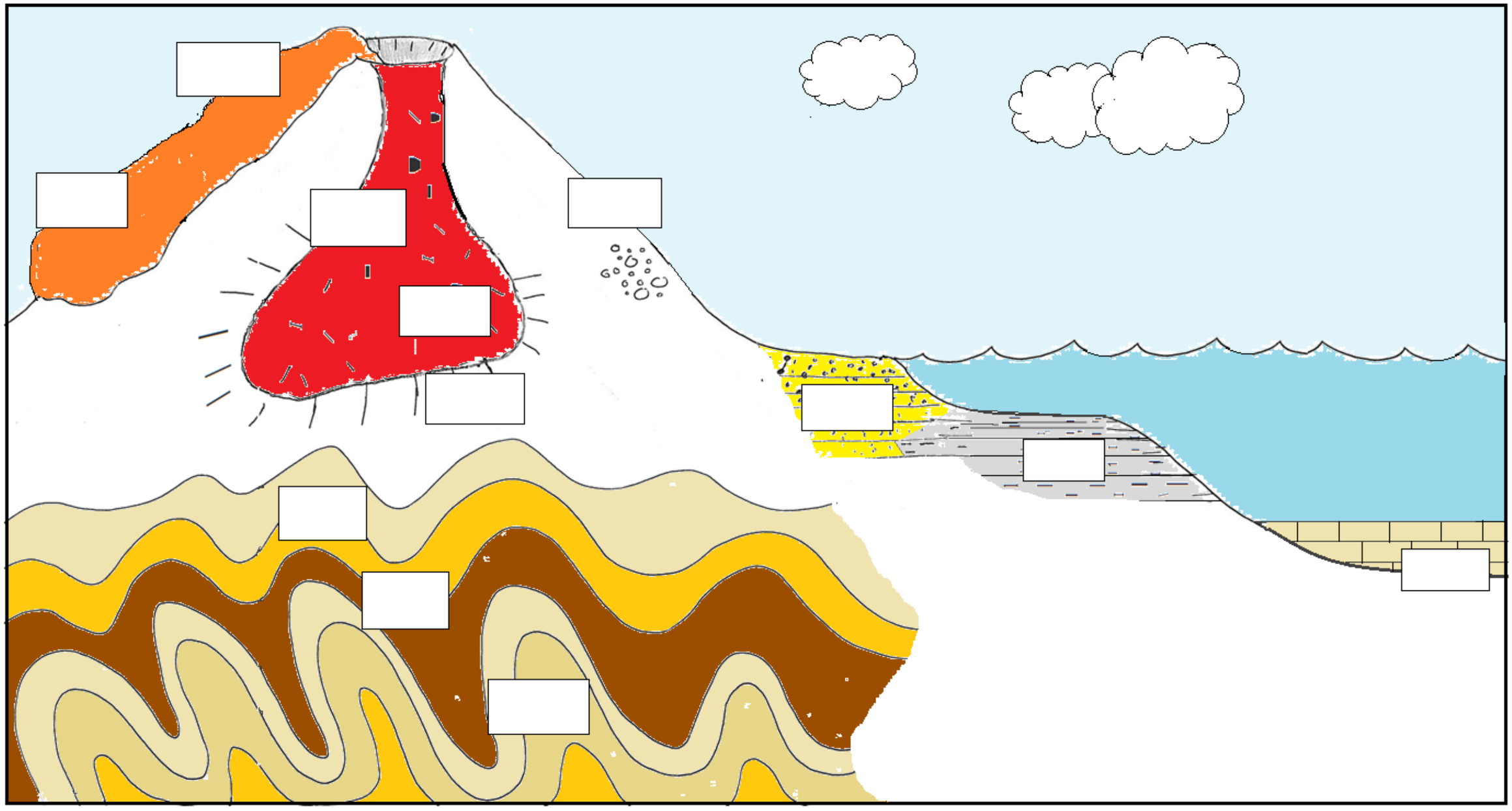
1. granite
2. gneiss
3. conglomerate
4. limestone
5. shale
6. sandstone
7. obsidian
8. quartzite
9. diorite
10. slate
11. scoria
12. schist

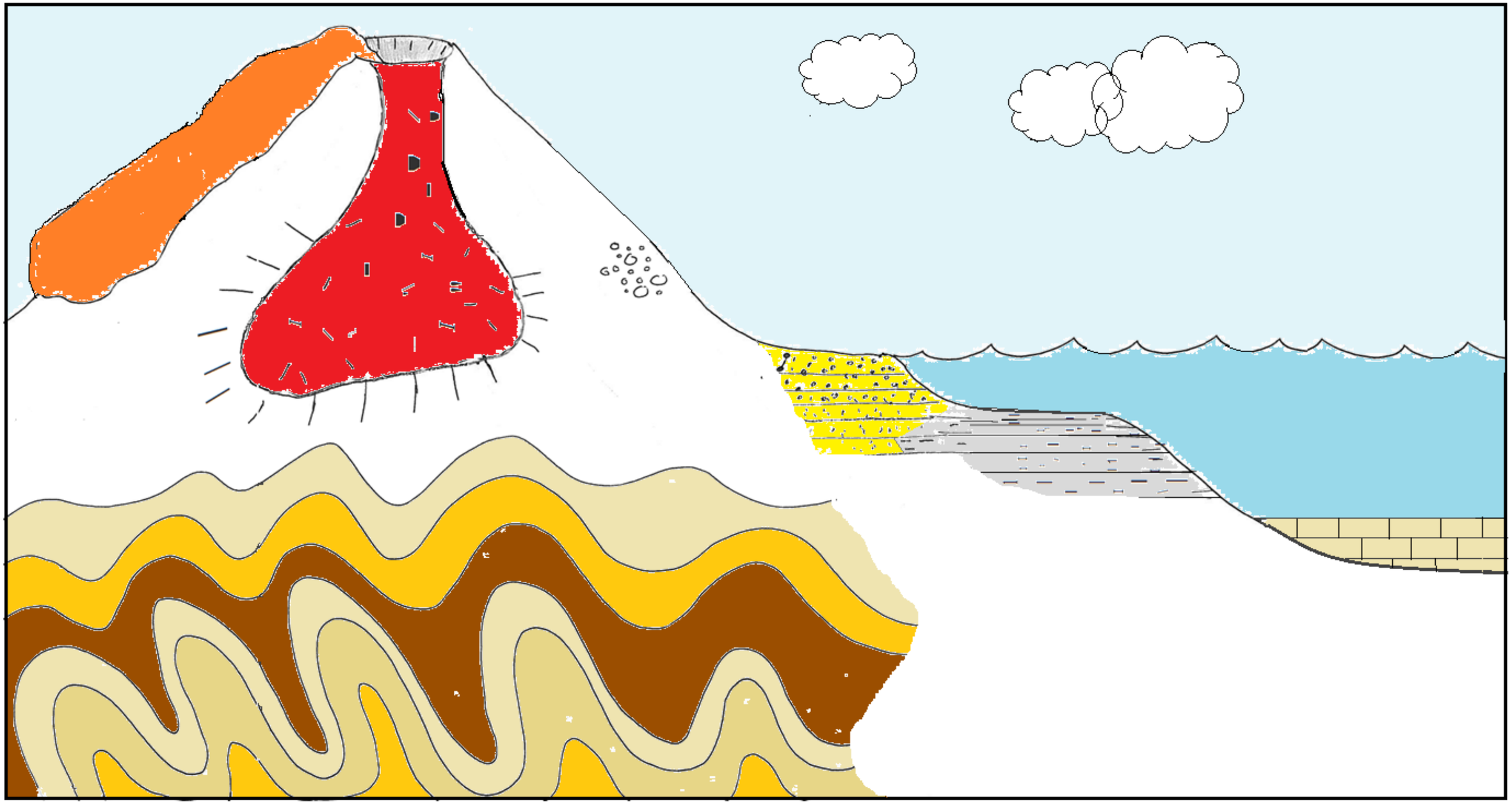
Rock type	Classification (how formed)	Identifying features		Rock Name
		grain size	**colors**	
Igneous	**Intrusive**: cools slower underground, crystals big enough to see	crystals bigger than small sand grains	black/white or pink/black/white	granite
			black/white	diorite
	Extrusive: cools quickly above ground, crystals too small to see	crystals too small to see & gas bubble holes	usually black but can be reddish if oxides	scoria
		no crystals	usually black	obsidian
Sedimentary	**Clastic:** sediment grains pressed or rock fragments cemented back together	small individual grains	white, tan or reddish	sandstone
		very small grains, can't see them	dark gray to black	shale
		large and small rounded grains	various individual grain colors	conglomerate
	Chemical: dissolved minerals precipitate out of water	very small, usually can't see grains	usually white or tan	limestone
Metamorphic	**Foliated:** rocks become layered due to high heat and pressure	very small, thin layers	light gray or black	slate
		very small with thicker layers	alternating layers with different colors	gneiss (nice)
		flattened layers that sparkle	usually light white/silver or dark black/green	schist
	Nonfoliated: rocks are heat altered, or chem. reaction	crystal edges blend together, usually don't see individual crystals	white color or pink/purple	quartzite

Rock Formation Card




obsidian
scoria
diorite
granite
quartzite
conglomerate
sandstone
shale
limestone
slate
schist
gneiss





1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9

9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9