

Advanced Geology Field Trip Rock Table

1: Calcite <i>Mineral</i> (white or clear, diamond-shape, white streak, hardness 3)	2: Pyroxene <i>Mineral</i> (grayish, large grain glitters, hardness 5-6, light green streak)	3: Gypsum <i>Mineral</i> (white, soft-looking, hardness 2, white streak)	4: Amphibole <i>Mineral</i> (grayish, large grain glitters, hardness 5-6, colorless streak)	5: Quartz <i>Mineral</i> (white-clear color, no cleavage, hardness 7+)
6: Mica <i>Mineral</i> (cleavage on one plane, silvery-gold color, divides into sheets)	7: Feldspar <i>Mineral</i> (pink, shiny, hardness 6, flat cleavage on two planes)	8: Plagioclase <i>Mineral</i> (gray rock with large-grain sparkly bits, lighter in color than gabbro, hardness 6)	9: Bauxite <i>Aluminum Ore</i> <i>Igneous, Sedimentary</i> (white streak, hardness 2-3, brown/red/orange with dark circles)	10: Limonite <i>Iron Ore</i> (yellowish brown, yellow or brown streak)
11 Hematite <i>Iron Ore</i> (dark red, comes off rubs off, dark red-brown streak)	12 Pyrolusite <i>Manganese Ore</i> (very dark rock, dark streak, hardness 6)	13 Magnetite <i>Iron Ore</i> (magnetic iron ore, heavy, black, leaves dark streak)	14 Copper <i>Copper Ore</i> (dark rock with bright green spots or stripes)	15 Pyrite <i>Iron-Sulfur Ore</i> (gold, brassy, metallic, and leaves a greenish-black streak)
16 Fluorite <i>Mineral</i> (looks like green glass, white streak)	17 Sulfur <i>Mineral</i> (yellow color, smells like rotten eggs)	18 Barite <i>Mineral</i> (white with pink streaks/tint, white streak, hardness 3)	19 Graphite <i>Mineral</i> (dark gray, leaves a dark mark on paper and streak plate)	20 Talc <i>Mineral</i> (layered, hardness 1, greasy feel, gold-brown streak)
21 Tufa <i>Sedimentary, a variety of limestone</i> (light color, porous, reacts with acid)	22 Limestone <i>Biological Sedimentary</i> (gray rock that bubbles with acid, hardness 3)	23 Conglomerate <i>Clastic Sedimentary</i> (Pink-brown-gray, looks like pebbles cemented together.)	24 Fossiliferous Limestone <i>Biological Sedimentary</i> (smashed shells put together, acid reaction)	25 Sandstone <i>Clastic Sedimentary</i> (grains of sand cemented together, no streak, hardness 7)
26 Shale <i>Clastic Sedimentary</i> (gray, fine-grained, hardness 3)	27 Bituminous Coal <i>Biological Sedimentary</i> (jet black, soft, and brittle, shiny)	28 Unknown Rocks (any rocks you have no idea about <i>when you're done</i> , put here)	29 Porphyry <i>Igneous</i> (black-white speckled rock, very hard, hardness 6-7)	30 Obsidian <i>Extrusive Igneous</i> (black, glass-like, conchoidal cleavage - looks like a shell)
31: Felsite <i>Igneous</i> (pink rock with few small sparkly flecks, hardness 3-4)	32: Pumice <i>Extrusive Igneous</i> (very lightweight, floats in water, full of holes, light in color)	33: Basalt <i>Extrusive Igneous</i> (dark color, lightweight, full of holes)	34: Gabbro <i>Intrusive Igneous</i> (grayish, large grain glitters, hardness 5-6, colorless streak)	35: Granite <i>Intrusive Igneous</i> (pink-gray with dark flecks, hardness 6-7)
36: Slate <i>Metamorphic</i> <i>From Shale</i> (dark gray, looks like sheets pressed together, layered, hardness 2-3)	37: Gneiss <i>Metamorphic</i> <i>From Granite</i> (pronounced "nice", black and white speckled, banded, glitters)	38: Marble <i>Metamorphic</i> <i>From Limestone</i> (white, larger grains glitter sections, hardness 3-4)	39: Mica Schist <i>Metamorphic</i> <i>From Quartz and Mica</i> (silvery, layered, fine grains glitter in the sunlight)	40: Quartzite <i>Metamorphic</i> <i>From Sandstone</i> (dark rock, hardness 7+)

How to Figure out Which Rock is Which?

1. Find the yellow one and see if it smells like rotten eggs. (#17: sulfur)
2. Find the sparkly gold one – use your streak plate to find if it leaves a dark streak. (# 15: pyrite)
3. Find a silvery-gold one that looks like it is made up of sheets squashed together. (#6: mica)
4. Find two lightweight rocks full of holes. There's one that floats in water (#32: pumice) and one that doesn't (# 21: tufa).
5. Find a piece that looks like greenish-clear glass (#16: fluorite)
6. Find a red rock that when rubbed, the color comes off on your fingers. It also leaves a red-brown streak. (#11: hematite)
7. Find a yellow-brown rock that leaves a yellow or brown streak (#10: limonite)
8. Find a pink rock that is shiny, and can't be scratched by a steel nail. It's also got straight sides on a couple of the surfaces (#7: feldspar).
9. Find a red-orange rock that looks like it has dark circles on it. (#9: bauxite)
10. Find a piece that looks like black glass (#30: obsidian) with conchoidal cleavage
11. Find a brown, flat piece that is slippery and greasy to touch, can be scratched by your fingernail (#20: talc)
12. Find two pink rocks with dark spots. There's one that looks like it's made out of pebbles cemented together (#23: conglomerate) and one that looks like the dark spots are part of the rock itself (#35: granite).
13. Find five white rocks. Find the one that can scratch glass (#5: quartz).
14. The four remaining white rocks have different properties: one looks like a transparent cube and is very flat on all sides (#1: calcite), one is soft-looking, leaves a white streak, and can be scratched by calcite (#3: gypsum), one is sparkly and reacts with acid (#38: marble), and one has non-white surfaces (#18: barite)
15. Find a light-colored piece that looks like a bunch of smashed-up shells cemented together (#24: fossiliferous limestone)
16. Find a dull-pinkish-red rock that looks like it is made up of tiny grains of sand cemented together that has good cleavage on one side (#25: sandstone)
17. Run a magnet over your dark colored rocks and find the one that is slightly magnetic (#13: magnetite)
18. Find a shiny, black lightweight rock that breaks along its length (#27: bituminous coal)
19. Find a dark gray rock that writes on paper (#19 graphite), usually thin.
20. Find a dark rock that has green bits or stripes on it (#14: copper ore)
21. Look at the rest of your dark rocks, and find the four that are glittery. There's three that are solid dark color (#34: gabbro), (#2: pyroxene "pie-ROCK-scene") and (#4: Amphibole "am-fi-BOWL") and one that is striped or layered (#37: gneiss)
22. Look for a sparkly grayish-silver rock (#39: mica schist). This is made from quartz and mica.
23. Gray rock that has cleavage that looks like stair steps, looks like flat sheets pressed together, can be scratched by a nail and coin (#36: slate).
24. Find a rock that looks a lot like slate, only instead of steps it's got flat surfaces where it broke (#26: shale)
25. Find a gray rock with large sparkly bits, lighter in color than gabbro, pyroxene, and amphibole. (#8: plagioclase "plage-EE-O-claize")
26. Find a dark rock that is full of holes (#33: basalt). Very hard rock.
27. Find a black-white speckled rock, very hard, that can scratch glass (#29: porphyry "POOR-for-ee")
28. Find a lightweight pink rock that can be scratched by a nail (#31: felsite) that has a couple of little bits of glittery flakes in it.
29. Find a very dark rock that leaves a thin, hard to make dark streak. (#12: pyrolusite "pie-ROL-you-site")
30. Find a gray rock that reacts with acid. (#22: limestone) If it doesn't, check your shale and slate rocks to see if any of those react with acid. These are often mixed up with each other.
31. Find a rock that can scratch glass (#40: quartzite)