

Geology Lab Extra Credit

Ryan Kerr

1. The best way to tell the difference is by the luster of both minerals. Calcite's luster is typically dull, while quartz appears to be glassy.
2. The biggest difference between quartz and feldspar is color. Feldspars are usually light in color, including but not limited to tan, gray, or white. While quartz typically appears colorless or clear.
3. Muscovite appears silver and shiny, almost clear or colorless to the naked eye. Biotite, however, appears shiny, but is much darker than muscovite. It appears as a black color. This is the best way to tell the difference between the two.
4. Cleavage is the ability or tendency for a mineral to "split" along planes where ions and other atoms are located in the mineral. This creates a repeating surface that is smooth and also visible not only to the naked eye but through a microscope as well.
5. The elements that make up a mineral have the most impact on color. In this case, silicon is the main producer of color, so the color of the mineral depends on the amount of silicon. Other elements like iron or manganese, also can make an impact on color depending on the amount.
6. Olivine, Pyroxene, Amphibole, Feldspar, Mica, Quartz, Muscovite, and Biotite.