

| <b>Common rocks and their mineralogy</b> |  |
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| <b>Igneous rocks</b>                     | <b>Minerals</b>  |
| Mafic (basalt)                           | Olivine, plagioclase, clinopyroxene, orthopyroxene, magnetite/chromite; zeolites or calcite as alteration or infilling of vesicles   |
| Mafic (gabbro)                           | Olivine, plagioclase, clinopyroxene, orthopyroxene, magnetite and/or ilmenite  |
| Intermediate (andesite)                  | Plagioclase; hornblende; clinopyroxene or orthopyroxene; magnetite and/or ilmenite   |
| Intermediate (diorite)                   | Plagioclase; hornblende; more rarely clinopyroxene or orthopyroxene; biotite; magnetite and/or ilmenite; apatite   |
| Felsic (rhyolite)                        | Quartz, K-feldspar (sanidine), plagioclase; often biotite; zircon  |
| Felsic (granite)                         | Quartz, K-feldspar (orthoclase or microcline), plagioclase; often hornblende and/or biotite; either titanite or ilmenite and/or magnetite; apatite, zircon, tourmaline, muscovite (sometimes), epidote (sometimes), garnet (rarely)                      |
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| <b>Sedimentary rocks</b>                 | <b>Minerals</b>  |
| Clastic rocks                            | Quartz, plagioclase, K-feldspar as clasts; quartz, calcite, or hematite as cements; rock fragments (diverse types); chlorite, clays, muscovite (rarely), zircon, tourmaline, apatite   |
| Carbonates                               | Calcite and/or dolomite, quartz, clays   |
| Chert                                    | Quartz (super fine-grained)  |
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| <b>Metamorphic rocks</b>                 | <b>Minerals</b>  |
| Low-grade schist                         | Quartz, plagioclase, muscovite, chlorite, ilmenite or magnetite, zircon, apatite, tourmaline   |
| Medium-grade schist                      | Quartz, plagioclase, muscovite, biotite, garnet, staurolite, kyanite (higher pressure), andalusite (lower pressure), cordierite (lower pressure), zircon, apatite, tourmaline, monazite, ilmenite or magnetite or rutile (rarely), chlorite (retrograde) |
| High-grade schist                        | Quartz, plagioclase, K-feldspar (orthoclase or microcline), biotite, garnet, sillimanite, cordierite, spinel (rarely), zircon, apatite, tourmaline, monazite, chlorite (retrograde)  |
| Greenschist                              | Quartz (often), plagioclase (albite), chlorite, epidote, actinolite (sometimes), ilmenite or magnetite or titanite   |
| Amphibolite                              | Plagioclase, hornblende, quartz, garnet, biotite, chlorite (sometimes), calcite (sometimes), clinopyroxene (rarely), ilmenite or magnetite or titanite or (rarely) rutile.   |
| Granulite                                | Plagioclase, clinopyroxene, orthopyroxene, hornblende, biotite, ilmenite or magnetite  |
| Blueschist                               | Plagioclase (albite), quartz, glaucophane, epidote OR lawsonite, muscovite (phengite), rutile and/or titanite, chlorite, garnet (sometimes)  |
| Eclogite                                 | Garnet, clinopyroxene (sodic), glaucophane (rarely), quartz, rutile, titanite (retrograde), muscovite (phengite), kyanite (rare), retrograde amphiboles (common – actinolite, glaucophane, or a mixed composition)                                       |
| Low-grade calc-silicate                  | Calcite, dolomite, quartz, plagioclase, K-feldspar, biotite (pale), talc, tremolite, clinopyroxene, epidote, garnet (sometimes), vesuvianite (sometimes)   |
| High-grade calc-silicate                 | Calcite, dolomite, quartz, plagioclase, K-feldspar, biotite, epidote, olivine (not with quartz), wollastonite, scapolite, brucite (after periclase), garnet (sometimes)  |