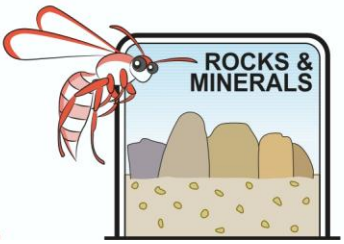
Rock Classification - Dichotomous Key



This is a very general way of classifying rocks used at Year 8 level. Rocks that are very fine grained are difficult to classify unless you can take thin sections and examine them under a microscope.

1. Rocks which have crystals
   Go to 2
   Rocks which do not have crystals
   Go to 6

2. Rocks which are made entirely of inter-grown crystals
   Igneous - Go to 3
   Rocks which are not made entirely of inter-grown crystals
   Metamorphic e.g. ***slate, schist, quartzite, marble and gneiss***

3. Rocks which have crystals large enough to see using a hand lens
   Igneous intrusive - Go to 4
   Rocks which are crystalline but their crystals are difficult to see using a hand lens
   Igneous extrusive - Go to 5

4. Rocks which are dark and dense
   Igneous, intrusive & mafic e.g***. gabbro***
   Rocks which are neither dark nor dense
   Igneous, intrusive & felsic e.g. ***granite, pegmatite***

5. Rocks which are dark and dense
   Igneous, extrusive & mafic e.g. ***basalt***
   Igneous, extrusive & felsic e.g. ***rhyolite***

6. Rocks which are non crystalline and are made of clasts
   Sedimentary, clastic - Go to 7
   Rock which are non crystalline but are not made of clasts
   Sedimentary, biogenic e.g.***limestone, chalk, coal***

7. Rocks with large clasts
   Go to 8
   Rocks without large clasts
   Go to 9

8. Rocks with large clasts which are rounded
   Sedimentary, clastic e.g. ***conglomerate***
   Rocks with large clasts which are not rounded
   Sedimentary, clastic *e.g.* ***breccia***

9. Rocks with medium rounded clasts
   Sedimentary, clastic medium grained e.g. ***sandstone***
   Rocks with less than medium size clasts
   Sedimentary, clastic fine grained e.g ***siltstone, mudstone***