

Diagnostic Mineral Properties Assessment

Pete Loader

The following is a simple but effective way to assess a student's ability to identify minerals. Nothing new in that, of course; diagnostic testing of minerals is key in every level of geology teaching. However, whilst the methodology of the various tests is readily understood by most students, the concept of what might constitute a diagnostic test is less well appreciated.

This exercise, which I use as a summary assessment in my AS mineralogy course, is a structured attempt to make students evaluate their use of diagnostic tests for different minerals in the WJEC AS course. It also emphasises the need for effective planning and appropriate prediction before undertaking an investigation. Some minerals (e.g. calcite or quartz) have a number of diagnostic properties but in this exercise unless students plan carefully they will end up with one or more minerals for which the only remaining properties are not diagnostic (e.g. quartz - vitreous lustre).

Have a go; it is not as easy as I looks!

Pete Loader
St Bede's College, Manchester.
(peteloader@yahoo.co.uk)