

Using a hammer in the field

- Geologists may carry hammers for two primary reasons - to break a piece of rock to get a look at a fresh surface for description or identification, or to collect samples for further work.
- Generally the advice is to use a hammer as little as possible. Most exposures don't require the use of a hammer, as there are often raw surfaces already exposed. If a sample is to be taken, you should first try to use fragments that have clearly fallen off the exposure.
- But before you do use a hammer to break a piece of rock at a specific location you must consider if you really need to. You should ask yourself is it appropriate and is there sufficient reason to do so. Whether it is correct to do depends on context.
- As a participant on an organized fieldtrip, whether you are a professional or a student, you should always ask the fieldtrip leader if hammer usage is permitted at each stop or outcrop.
- If you are engaged in project or research work, the decision to use a hammer lies squarely with you. Here are some things to think about: in general, avoid hammering near residences or immediately adjacent hiking trails. Near hiking trails, one can probably find other suitable outcrops tens or hundreds of meters off the trail, which would be invisible to passers-by. If the land is private, you may need to get permission to sample. If the site is protected it may be illegal to use a hammer and you must not use a hammer at all.
- Many times a weathered surface is more informative than a fresh surface for identifying the minerals present – because the weathering has picked out mineralogical differences.
- Wherever you do choose to take a sample, always choose a place on the outcrop where the hammer scar will be least visible. Best practice is to attempt to inflict the minimum amount of damage on the outcrop.
- Outcrops of rocks and minerals are a finite resource. Worldwide, there are countless cases of localities that have been used for decades to teach and train students which have essentially been ruined or rendered useless by the acts of a few unthinking individuals.
- Hammering is potentially dangerous to both the person yielding the hammer and to people in the area. Tiny detached rock fragments or particles of metal can easily become projectiles and travel considerable distances causing serious injury. This is especially important when groups of people are gathered around outcrops.
- Be part of the solution instead of part of the problem in the field, and preserve the outcrops for others to view in the future.