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## Walk 9: Mount St Bernard Abbey

**Start:** grid reference [SK 4580 1621]

This impressive Cistercian monastery was founded in 1835 and with its car park and shop, it is now a focal point for north-west Charnwood Forest. Outside of Bardon Hill Quarry and nearby Whitwick Quarry, the walls of the Abbey are one of the few places where one can see specimens of the Peldar Dacite Breccia, a volcanic rock common to the Whitwick and Bardon Hill volcanic complexes (see inset on the main map). The dacite shows abundant large crystals (phenocrysts) of grey, glassy quartz and pink plagioclase feldspar in a black, fine-grained matrix. This is called a porphyritic texture. In addition, the rock has a distinctive breccia texture, where rounded or irregular-shaped fragments of black to dark grey porphyritic dacite occur within a grey matrix. This rock was formed by the rapid cooling and subsequent break up of magma when it came into contact with wet sediments on the sea floor.

The rocky outcrop a few metres from the north-east wall of the Abbey displays steeply dipping crystal-rich tuffs, very thinly bedded and showing normal grading, a structure defined by concentrations of white plagioclase crystals at the base of beds, fining upwards to silty tops. Explore the rocky footpath up the knoll above, to see more Charnian tuffs.

### Figures

(Figure 67) The Abbey.



*The Abbey.*