

THE POWER OF A VOLCANO

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DATING VOLCANIC ERUPTIONS



Volcanoes are capable of deceiving scientists of their activities and how long they've been on earth. The importance of dating a volcano's eruption is so scientists can correlate them with other records. For example - earthquakes, land slides, ice cores and so on.



Dating volcanic eruptions create patterns in more recent volcanic activities - this means that scientists are able to forecast future eruptions.



E.g. The prehistoric Taupo volcano had an increasing carbon ratio which affected old trees in the area. These were the same weird carbon ratios before the volcano's previous eruption.



USING TEPHROCHRONOLOGY



Tephra is the volcanic ash from a single eruption. This is really useful to date the specific time of an eruption as the ash acts like a "time marker". To make a chronological framework of the volcanic eruptions, the ash creates a "tephra horizon" which is the area which the ash falls.

Over time, when other eruptions occur, there will be layers of tephra with different colours. Scientists can identify the different eruptions due to their "unique chemical fingerprint" it produces.

The instantaneous deposition of the ash is useful as it serves as a verification for other volcanic eruption dating techniques.

