

U3A GEOLOGY REPORT

Bob Tuddenham

Meeting on July 28th

In our July, we had a most interesting talk and practical session given by Les Knight entitled the 'Properties of Minerals'.

In the first half Les gave an introductory talk about this vast subject, firstly mentioning about the history of mineralogy. The mineral ores of the vital metals lead, tin and copper were known long before the scientific study of the subject. The first serious book on minerals was written by James Sowerby between 1802 – 17 in seven volumes with 550 coloured plates. There are apparently more than 6000 different minerals!

Les then went through some of the key properties of minerals with some excellent explanations and superb slides. We looked at simple methods of identification such as Moh's hardness scale and the streak test before moving on to the quite complex categories of crystal systems with their different shapes and symmetry. We could see the crystal form of some of the important local minerals in Teesdale such as galena and fluorite which are cubic and barytes which is platy orthorhombic. We then looked at a video showing some very old techniques used to identify minerals - the flame test, the borax bead test and the use of a blowpipe on a charcoal block.

The second half practical session gave us an opportunity to look at a whole range of different mineral samples and understand some of these mineral properties. We left the meeting with a much better understanding of this amazing subject.

The group does not meet in August and the next meeting will be at The Witham on Monday morning September 22nd at 10 am. All are welcome to join us. Please contact the convenor for details.