

A LAB-BASED INVESTIGATION OF THE GEOLOGICAL HISTORY OF AN AREA

Student Sheet

The samples, photographs and map all relate to an area of interest under geological investigation.

Rock Units A-E are representative of a palaeo-environment.

The dips and strike readings are for Rock Unit C of the sequence.

Using the resources, samples and materials supplied you are asked to;

- 1) Design an investigation to determine the geological history of the area stating the observations and measurements you intend to record, your proposed methods of recording and the equipment you would need to do so.
- 2) Create a risk assessment for the fieldwork.
- 3) Create an annotated field sketch of Location 8.
- 4) Make notes on the tests and observations you have made from the samples and photographs.
- 5) Use your observations and measurements taken from the samples, photographs and “measured section” to create a graphic log of the sequence of Rock Units A-E.
- 6) Record the grid references of locations 1, 6 & 7.
- 7) Locations 2, 3, 4 & 8 are given as grid references. Plot these as locations onto the base map
- 8) On the base map, plot the location of location 5 from the bearings given by locations 1, 6, & 7.
- 9) Measure the dip & strike of the 7 dipping surfaces (labelled Locations 1-7) in the classroom. Plot these, at the correct locations on the map, using the appropriate symbols.
- 10) Summarise the geological history; depositional environment and subsequent rock deformation from the information you have recorded and from any research you can carry out from referenced text-books and/or reliable web-based sources.