

GEOLOGY FIELDWORK TASK

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Activity 1

- Make a brief assessment of any field hazards and list the safety procedures you will now follow.

Activity 2

- Sketch at least two beds and label as many features as you can.
 - Depth of the beds
 - Size, shape and sorting of clasts
 - Possible rock types of clasts
 - Boundaries between beds
 - Bed thickness

Show the above on your sketch.

- For one bed sample 10 clasts and measure the following for each;-
 - long axis
 - intermediate axis

Assess shape of each clast using Powers scale

(this sample will be combined later with others for the follow-up work).

Make sure this data is recorded carefully and accurately.

- Make an assessment of how well sorted you think this bed is.
- Find an example of each of the following sedimentary structures and for each draw a well labelled field sketch that includes detailed measurements.
 - GRADED BEDDING
 - CURRENT/CROSS BEDDING (indicate direction of flow)
 - IMBRICATION
- Use all of the above information to name the sedimentary rock type and attempt to describe the environment of deposition (marine, wind, water, ice?)

Activity 3

- Find a section of the cliff that has at least 3 beds in the lowest 2 metres and collect the information needed for a graphic log of the lowest 2 metres.
- On the log outline complete a graphic log using standard symbols.
- Briefly describe what the graphic log shows.
- For any one bed in the log sample 10 clasts from the bottom of the bed to the top. For each clast:-
 - measure the long axis
 - measure the distance of the clast above the bottom of the bed
 - assess shape using powers scale

Record this data carefully and accurately

- Make a brief assessment of the change in both clast size and shape with distance from the bottom of the bed
- Attempt a brief explanation of the changes in the size and shape of clasts in the bed

HOFF QUARRY Markscheme

Field sketch showing main features	2
0 no sketch	
1 simple sketch	
2 good sketch, most features labelled	
Measurements	4
1. no record	
1 limited	
2 some data	
3 most data accurate and well recorded	
4 accurate thicknesses, clast size, clast shape etc	
Graphic Log	6
0 no log	
1 attempt at a log	
2 very simple log,	
3 some inaccuracies	
4 mostly accurate	
5 very accurate	
6. detailed, accurate log, accurate measurements, relevant symbols	
Graded bed	3
0 no sketch	
1 simple sketch, no measurements	
2 simple sketch, some measurements	
3 detailed sketch, accurate measurements indicated	
Current bed	3
0 no sketch	
1 simple sketch, no measurements	
2 simple sketch, some measurements	
3 detailed sketch, accurate measurements indicated, flow shown	
Imbrication	2
0 no sketch	
1 simple sketch	
2 detailed sketch, accurate measurements indicated	
Total	20