

Activity 6: Striation Orientation



Curriculum Links Wales:

- Humanities
- Health & Well-being
- Science & Technology

Curriculum Links

England:

Glaciated Landscapes; landforms and processes; practical skills; interpreting the past.

Time: 2-4 hours

Resources to download:

striation orientation method sheet

Other resources required:

compass, paper, pencil, random number generator (optional)

Group size: 1-4 learners per group

Outline Plan for Activity:

- First of all, take your group of learners to the striations site on the west side of Llyn Idwal (GPS co-ordinates 53.116173, -4.027165 Grid Reference SH 64435 59586)
- This is an area of exposed bedrock off the main path, with a steep drop into deep water. Extra care should be taken when using this site.
- Hand out the method sheet and compasses; the learners should be able to complete this task reasonably independently.
- Ask the learners to create their own recording sheet.
- If you spread the learners out over the whole area of bedrock, you should get a representative sample to show the direction of ice flow in the cwm.
- Beware some of the cracks in the rock might be mistaken for striations...!
- Please take care not to damage this sensitive location; if in doubt check with the Partnership Officer at the visitor centre.

Classroom activity ideas you could try before or after your visit:

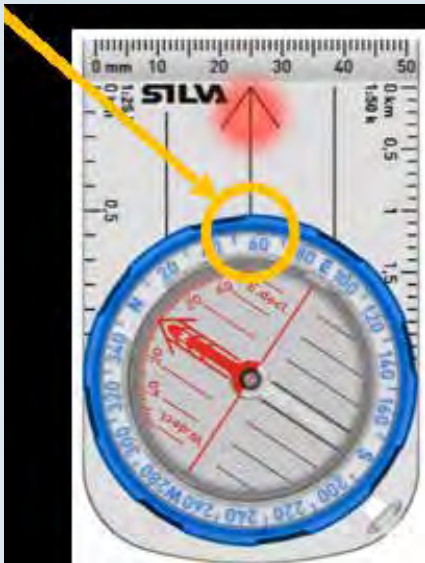
- Learn about grid references, latitude and longitude. Practice taking bearings on a compass around school grounds.
- Using the i-geology BGS app
- geo-locate your data using latlong.net
- Set up a school esri account to manipulate your data on a map
- Cwm orientation activity on OS maps

➤ **GO TO ORDANNACE SURVEY MAP ZONE**

Activity 6 worksheet: Striation Orientation

Method:

- Choose an appropriate sampling strategy (random, systematic or stratified) to locate your striation.
- Keeping the compass as flat as possible, line up the edge of the compass with the striation.
- Twist the bezel so that the north marking (N) lines up with the north arrow (usually red) as shown below.
- Your reading is the number at the top of the compass in line with the upward arrow (usually black)



- Repeat with more striations then calculate an average orientation

Questions:

- How can we use this data to investigate glaciation in this area?
- What can we infer about direction of ice flow?
- What are the limitations of the data set?