

WJEC Eduqas GCE AS in GEOLOGY

P18

The application of one or more criteria of relative age (evolutionary change in fossils, superposition of strata, unconformities, cross-cutting relationships, included fragments, way-up criteria) in the field to place geological events in relative time sequences

Title: P18 The application of one or more criteria of relative age (evolutionary change in fossils, superposition of strata, unconformities, cross-cutting relationships, included fragments, way-up criteria) in the field to place geological events in relative time sequences

Specification reference 3.2a

Aim: To determine the relative age of geological events in the field.

Apparatus:

Field note book

Pencil

Other relevant field apparatus e.g. hand lens

Method:

At various geological outcrops make notes and/or field sketches to record observations which will enable the relative age of geological events to be determined.

These events may include:

- deposition of a range of sedimentary rocks
- extrusion of igneous rock
- intrusion of igneous rocks
- folding
- faulting
- erosion
- metamorphism

Analysis/Conclusion:

Using evidence collected in the field, a range of geological events should be put into relative time sequence using one or more criteria of relative age (evolutionary change in fossils, superposition of strata, unconformities, cross-cutting relationships, included fragments, way-up criteria).

The relative time sequence which has been determined should be fully justified from the evidence collected.

Evaluation:

The degree of certainty of the decisions made regarding relative age of geological events should be considered and reasons for any uncertainty should be discussed. Further evidence that could be sought to remove any uncertainties should be proposed and justified.

Teacher/Technician notes:

It is not expected that learners will have necessarily seen all of these relative dating criteria on their fieldtrips.

Learners should have the opportunity to explore relative dating on more than one occasion in the field.