

Expedition Work and Duke of Edinburgh Award

Safety Awareness

Greatest danger – Roads & Railway crossings

Face oncoming traffic

Single file & be visible

Look and listen (constant awareness)

Maximum group control

Only cross railways at official crossing points – Stop, Look, Listen

DO NOT cross major dual carriageways except by underpasses or bridges

Map reading skills Compass skills Route planning and description

You need to demonstrate good map and compass skills and thorough route planning. This includes the production of route cards and the ability to describe routes from the map. You therefore need to develop skills in the following areas:

- Map symbols
- Scale & Distance
- Direction
- Location
- Use of contour lines
- Landforms (Relief)
- Route finding / Decision making
- Completing Route Cards

Expect to be assessed on these areas

Map symbols

The map key explains all the symbols used on the map, but you need to remember as many as you can – you will not always have a key available.

Significant symbols include:

Walls / Fences

Footpaths and rights of way

Water features

Forest / woodland

Buildings

Crags / scars / cliffs / quarries – vertical drops

Words indicating specific features [e.g. 'Carr' or 'Ings' – wet / poorly drained land]

Scale and distance

Scale – the relationship between the distance measured on the map to the distance measured on the ground

Two scales on maps produced by Ordnance Survey

1:50,000 or 2cm to 1 km

1:25,000 or 4cm to 1 km

Scale used for D of E expeditions – 1:25,000

[note: 100,000 cm in a km / 25,000 cm in quarter km]

Therefore:

4 cm to 1 km [1000m]

1 cm to 250m

1mm to 25 m

Each grid square represents one km

Measure distance accurately from the map using:

String / edge of paper

Reference to scale / ruler

Estimate timings using Naismith's rule

4 kilometres per hour

Plus

One minute for every 10m ascent

[note: with a contour interval of 10m that means 1 additional minute for every contour of ascent. Some maps have contour intervals of 5m as in the map of the Howardian Hills]

3 km per hour is a more realistic speed on extended expedition with full packs, especially in mountainous regions.

Naismith's rule is a guide; it is not a challenge to be beaten!

Planning expected timings and assessing actual timings, enable adjustments to be made.

As a general rule – do not pass through checkpoints earlier than the time stated on your routecard unless previously agreed with your supervisor / assessor

Direction and compass skills

Be able to draw and use a 16 point compass

Use this for describing general direction on route cards

Understand the use of bearings [describing direction in degrees round the circle ie N45°]

At D of E Bronze level detailed compass work is not required. It is more important to be able to relate the map to ground features. A compass might be used to help orientate the map to north.

Location

Use of 4 figure and 6 figure Grid References

- Vertical gridlines called eastings because the increase in number as you go east
- Horizontal gridlines called northings because the increase in number as you go north

Basic principles:

Use vertical line first

Refers to bottom left hand corner of square in question

Divide grid square into tenths to generate a six figure grid reference

A four figure grid reference relates to a one km square

A six figure grid reference relates to a one hundred metre square

Grid References need to be used on route cards and as part of location description in an emergency situation.

[note: grid references are repeated every 100km so stating the region or map title is important]

Use of contour lines

used to represent height on maps – along with spot heights and trig points

- A contour line is a line joining places of equal height above sea level
- Contour interval is the vertical height between two adjacent contour lines [usually 10m but can be 5m]
- Contour lines close together – steep slopes [gradients]
- Contour lines more widely spaced – gentle slopes
- No contour line – flat areas

Consider appreciating shapes of slope – i.e. even, concave, convex

Landforms to recognise from contour patterns:

Valley

Spur or ridge

Col or saddle or pass

Hill top or summit

Route descriptions

Be able to describe a route to include:

- Road, footpath directions and junctions [or open country]
- Walls / fences
- Features passed [landscape features – as the contours indicate, other features as map symbols indicate]
- Ascents and descents [location and steepness]
- Distances and timings

Accident procedures

Know what simple first aid to administer

Know how to summon help [supervisor / assessor or Emergency Services]

Know what information to provide [Write it down]