

**Walking in the Yorkshire Dales
and northern Pennines**

*The design and use of
route-cards and route-maps*

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The design and use of route-cards and route-maps

Scope

This document focusses on route cards and route maps suitable for urban and rural walks in the Yorkshire Dales and the northern Pennines. Additional information and / or alternative navigational techniques will be required for walks that involve scrambling, climbing, caving and / or pot-holing – all of which are beyond the scope of this document.

Route cards

The traditional way of planning and recording a walk is to create a route-card.

This involves breaking-down the walk into a number of legs (typically 5 to 30, depending on the length & complexity of the walk and the level of detail required), then obtaining and recording some or all of the following information **for each leg**:

- The start-point (six-figure grid reference and, if desired, a name / short description)
- The finish point (" " " " " " " " " ")
- The initial bearing (magnetic)
- The horizontal distance to be covered (in miles or kilometres, as preferred)
- The height gained + the height lost (in feet or metres, as preferred)
- The time (estimated) that the leg will commence
- The (estimated) amount of time that needs to be allowed for the:
 - Horizontal distance
 - Ascent
 - Descent
 - Nature of the terrain / underfoot conditions
 - Breaks
- The total amount of time (estimated) required to complete the leg
- Notes & useful information, including:
 - Features that will aid navigation / route-finding, especially for tricky sections and / or in case of bad weather;
 - Points of interest
- Brief details of the potential escape route(s) in case of an emergency

Some or all of the following **additional and summary information** is usually recorded at the top or bottom of the route-card:

- The name of the walk (i.e. a title)
- The date of the walk
- The names of the leaders

- The names of the group members
- The name of the organisation responsible for the walk
- The name & contact details of the walk-coordinator or emergency contact
- The planned (estimated) start & finish time
- The sunrise and sunset times (the latter is especially important in the winter)
- The sheet number(s) of the map(s) required to cover the entire route, including potentially useful escape routes & alternative routes.
- Average walking speeds (in k.p.h. or m.p.h., as appropriate) used to calculate timings (NB: see also the section on “Naismith’s Rule”):
 - Flat & level
 - Average ascent
 - Steep ascent
 - Average descent
 - Steep descent
 - Particularly difficult terrain / underfoot conditions

NB: When considering these average walking speeds and calculating estimated timings, it is vital to bear in mind the following:

- the grading of the walk,
- the nature of the terrain,
- the forecasted weather,
- the underfoot conditions,
- the availability of daylight,
- the need to allow a reasonable amount of time for regular breaks, and
- the possibility of the train being late.
- the total horizontal distance covered
- the total vertical distance covered in:
 - ascent
 - descent
- Notes / additional information (to include travel arrangements, details of special equipment required; special needs of individual group members; time constraints; access restrictions; etc)
- Signature or initials boxes for:
 - the leader(s)
 - a reviewer / approver / supervisor

Route-cards are used initially to help the prospective leader(s) to plan a walk. Once the walk has been planned, the route-card should be taken on the reconnaissance walk(s) to aid route-finding and to allow the actual timings to be compared with the calculated timings. After the reconnaissance, the route card should be updated to incorporate any errors identified and / or any lessons learned. Sometimes it may be necessary to carry-out more than one reconnaissance walk, either to find the best route, or to check out alternative routes and / or escape routes. As before, the route-card should then be updated accordingly.

Once the route-card has been finalised, it should be referred-to during the walk proper. After the walk proper, it is a good idea to update the route-card one more time to take account of the pace that was achieved by a real group and to reflect the additional experience gained. This final version can then be filed-away for future reference - i.e. to aid planning for future walks in general, and / or for use if leading the same walk (or sections of the same walk) again at some point in the future.

In the past, walk-leaders had no choice but to produce each route card manually – a process that could take a considerable amount of time (and a great deal of care, if mistakes were to be avoided). Nowadays, however, computerised route-planning software such as *Memory Map* and *Anquet Maps* can be used and these speed-up the process considerably.

Novice and inexperienced leaders are strongly advised to produce a comprehensive route-card as part of the preparation for each and every walk.

Experienced leaders may find that they do not need to produce detailed route-cards for walks that they know well. However, a few estimated timings jotted-down on a piece of paper can still be an invaluable aid to monitoring the pace and managing timings. Even experienced leaders would be well advised to produce a detailed route-card when planning and leading a walk in an unfamiliar area, for walks that have severe time constraints and for walks that are particularly strenuous in nature.

Route maps / map tracings

A long-standing technique used to speed-up navigation along a planned route is to highlight the route on the map (e.g. using some form of highlighter pen). However, marking original maps in this way can cause confusion when using the map for other walks in the same area. The traditional way of overcoming this difficulty was to lay a sheet of tracing paper over the map, then trace the route on this (along with easily identifiable reference points – such as grid-square corners - to aid realignment later). The tracing paper could then be temporarily fixed to the map during the walk in question, then removed and filed with the route card for future reference. In more recent years, another option has been to take a photocopy of the relevant sections of the map (or to scan & print them), then highlight the route on the copies. Nowadays, modern route-planning software can be used to achieve the same goal far more easily. However, it is still essential to carefully examine the map to assess the nature of the terrain etc. along the planned route.

Naismith's Rule

Naismith's Rule is used to help estimate the time required to cover a section of uneven terrain:

“Allow one hour for every three miles forward and half an hour for every 1,000 feet of ascent.”

A commonly used modern variation of is simply to add one minute for every ten metres of ascent.

Although no adjustment is normally made for descents, some people descend more quickly than others. Also, the weight of equipment being carried, fitness levels, light-levels, weather conditions and the nature of the terrain can all significantly affect speed over the ground, regardless of whether you are ascending, descending or walking on the level. As a consequence, these rules of thumb should only be used as a starting point.

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