

KIMBLE MAP READING EXERCISE

Timing

It might be possible to do this in a long afternoon, but is best to treat it as a whole day walk, or to split it into two. There is a convenient point a little less than half way round with two pubs, and bus stops, about a kilometre away, and the way back to the starting point just a little further. There is another pub towards the end, but you are unlikely to get there for lunch time! The only proper seating for picnics is near the monument, also towards the end, but there are various possibilities in the woods before then.

Preparation

You could usefully read through the whole exercise, following the route on the map, before you set out.

Map

You need the Ordnance Survey Explorer map 181, Chiltern Hills North. The part you will be using has Princes Risborough at the bottom left corner, and Wendover at the top right, and you will save yourself time if you have it folded with that part showing. The map will fold more easily if you take off the cover (steam off the glue). There is no law preventing you from cutting in half or into a more convenient size a map that you find too big!

It is also helpful if you can keep a thumb or finger on your position on the map, so you can find it more quickly when you next look. Or you may be able to devise some other method (a post-it note? blutack?).

Compass

While a compass is helpful, it is not essential; if you do not have one, simply miss out the bits about using one.

Any sort of compass is adequate for setting a map.

For walking on a compass course, you should use one with a baseplate (with two parallel sides) and a rotatable “capsule” or “housing” containing the compass needle. The baseplate normally has a millimetre scale, and may have a magnifier, and if you do not have a compass you may need a separate ruler and a magnifying glass.

If you are buying a compass, bear in mind that if you ever have to use it in an emergency, it could well be in the dark, so the extra cost of a luminous one would be justifiable.

Distances

Any calculations are simplest if you can “think metric”. Even if your compass has a scale in inches (which many do not) millimetres convert into metres more easily than fractions of an inch into yards (for our purposes, a metre is not significantly different from a yard).

Think of a mile as about one and a half kilometres (or more accurately 1.6) and a kilometre as two thirds or five eighths of a mile.

The blue grid squares on the map are 1 kilometre, so are a good guide to distances. (If you really want to think in miles, the diagonal distance across a grid square is almost exactly seven-eighths of a mile.)

Pencil

There are a couple of figures you will need to note down, and you may find it helpful to tick off each item as you deal with it.

Start

You start from Little Kimble station. This is on the branch line between Princes Risborough and Aylesbury.

There is a good bus service between High Wycombe and Aylesbury stopping at Kimble and Lacey Green (hourly on Sundays). Get out at the stop for Little Kimble church.

There is very little parking at the station; if you come by car, please do not block residents' access. There is a layby near Little Kimble Church.

Little Kimble Station is in grid square 8206, at grid reference 823066. The third and sixth figures of the grid reference represent tenths of a square (100 metres) east and north respectively.

(For most practical map-reading purposes, references can be given as six figures, giving the distance in hundreds of metres east and north of a point 000000, but as grid references recur every 100 kilometres (62 miles), they may sometimes need to have a two-letter prefix, if a reference unique in Great Britain is required. For this area point 000000 is just outside Cirencester and the two-letter prefix is SP. A diagram (usually at the bottom of the map) shows the relevant letters.)

On leaving the station and crossing the small car park, turn left.

Set or "orientate" your map so that features on the map line up with what they represent on the ground. Turn the map so that the road on the map points in the same direction as the road beside you. As you are heading roughly north, this is easy; simply hold the map with north (at the top of the map) away from you. Features to the left on the map will then be to your left on the ground and those to the right will be to the right.

Look how far you can see along the road. See what that looks like on the map. Measure it on the map if you like, preferably in millimetres, and convert to metres (4 millimetres on the map represents 100 metres on the ground) but the important thing is to recognise what that distance on the map looks like on the ground.

Walk in that direction. Pass the village hall and identify it on the map.

Follow the main road as it bends right, and identify the first public footpath on the right, shown by short green dashes.

Take the second public footpath on the right, into the field.

Look at the size of the field, and see how it is shown on the map.

Move your compass about in various directions over and near the gate, making sure it is level so that the compass needle can swing freely, and see how the needle is affected. (Be cautious about using the compass close to electricity lines, but the one in front of you does not seem to have any effect at this distance.)

Orientate the map by lining up the road on the map with the road you have just left.

To show how to use a compass to orientate your map, put your compass on the map, (well away from the gate!). You will see that the compass needle is approximately parallel to the blue north-south gridlines on the map. Turn the map round just enough for it to line up exactly. (Strictly speaking, the compass needle points about 5½ degrees west of grid north – see the note at the bottom of the map – but this "Magnetic Variation" can be ignored for our purposes.)

Your map is now accurately orientated showing you the direction in which you have to cross the field. You will now be heading approximately eastwards, with north to your left, so you should be holding the map with north to your left.

Follow the path diagonally across the field to a stile, and cross a drive.

In the next (small) field there is an interesting feature to your right not shown on the map (probably just too small for the Ordnance Survey criteria for inclusion at this scale).

Go on into the large field with the parish boundary in it (well spaced black dots), and identify on the map and on the ground the road and the cluster of houses and gardens beside the Aylesbury Ring at the other side of the field, the distinct summit of Beacon hill, Ellesborough church, and your exit point ahead. When there are no leaves on the trees you can also identify Bushey Lees Farm and the road on your left.

Follow the footpath past the first pond, which will probably be visible through the trees, then be sure to follow the public footpath (partly hidden on the map by wording). where it turns left at a disused gate, and not to continue ahead along the field edge.

Continue to where the map shows the public footpath joining/crossing another one.

Go in the direction of the church as far as the crossing with the Aylesbury Ring (at a gate and stile with distinctive waymarking between a small windowless hut and an old tree). Note the map symbol for a "National Trail or Recreational path".

What changes to the fences as shown on the map do you see here? The water trough behind you is a clue; water troughs are not usually put in the middle of a field, especially with a fragment of fence on top. Look also at the line of the diagonal path to the left of your route.

Look ahead towards the church. You are now facing south, so your map should be "upside down". This time orientate it by using a point feature, the church. Turn the map so that a line from your present position to the church points away from you. (You may like to lay a straight edge, such as a pencil or the edge of your compass, on the line, or put your thumb nail on your present position.) Turn the map so that the line points directly at the church. If you put your compass on the map, you should also find that the needle is parallel with the blue north-south grid lines.

See what the size of the field looks like on the map.

Count the contours. Is the slope steeper in the field or in the churchyard?

Walk up to the church. If the view is not blocked by leaves on the trees, look back over your route, identifying as much of it as you can. You recognise the small building with the bright red roof?

Before crossing the road, judge from the map what visibility at the crossing point will be like.

After crossing the road, first explore the path ahead, very slightly east of south. The gap where the path turns left into the big field is not obvious until you get close to it. See whether you can judge the distance from the map, so that you know when you are getting close "I think it must be about here". (Remember the distance across the field as you came up to the church?)

Then return to the road, and take the other path, slightly west of south, towards Beacon Hill.

Does the path go straight uphill (at right angles to the contours) or diagonally?

Note that the field boundary under the word "Castle" is shown as a dashed line, indicating that at the time of survey it was an intermittent line of trees and bushes, without a proper hedge or fence.

In the next field, identify the part of the path that is more or less horizontal, parallel to the contours. Identify Cymbeline's Castle.

Notice the steepness of the valley to your right. Some of the detail is lost on the map here, so that two re-entrants (= side valleys) on the ground are shown as one on the map. See also the shape and steepness of the hill to your left.

Before you enter the wood (Ellesborough Warren) look at the contours to see what you expect the path to do (though to be fair, the map is too cluttered to be very clear here).

After you leave the wood, you cross some open land. Again check the contours in relation to the path, and notice the shape of the hillside behind you on your left.

Keep to the public footpath through the next wood, cross the track with "Private" notices, and go out into the field to the left.

Here leave the public footpath and head down into the dip and up on to the ridge beyond. See whether you can identify the new fence you cross before you go up on to the ridge. Stiles indicate that public access is encouraged. Note how the dip and the ridge are shown by contours looping first one way and then the other. From the ridge, identify the small bare summit of Chequers Knap ahead and the wooded top of Pulpit Hill further to the left.

Turn left along the ridge and join the Cradle Footpath, which forms part of the Ridgeway National Trail, where to continue the exercise you should turn east.

(However, this is a good place to break off for lunch, or to come back another day. There is a pub at 826044 (you can go through the nature reserve) and another at 825060 with bus stops nearby, and the way back to the station is straightforward.)

To continue, go eastwards to the footpath crossing (where there is a kissing gate and Ridgeway signpost). From here, your route to follow the Ridgeway over the hump-backed field may not be clearly visible on the ground. Orientate your map by using the fence to your right and the Ridgeway path behind you, and try to judge the right direction.

To use the compass for this, put it on the map (which does not have to be orientated) with one of the long edges of the baseplate lined up from your present position in the direction you want to go (any arrow on the baseplate should point the way you want to go, not towards where you are!). Ignoring the compass needle, turn the circular housing until the parallel lines on it are parallel with the north-south grid lines on the map, with the N on the housing towards the north of the map. Now, with the compass baseplate pointing away from you, turn the whole compass (and yourself, but not necessarily the map) until the north (red) end of the compass needle is in line with the N on the compass housing. The baseplate should point in the direction you have already estimated.

The map shows the path going alongside Maple Wood for 19 millimetres (475 metres) and then continuing 3 mm (75 metres) before turning left to cross an open field, i.e. 22 mm and 550 metres in all. Pace this out, to calculate how many paces you take for a given distance. Start at the gate between Whorley Wood and Maple Wood, and stop at the signpost where the path turns left. Use your natural pace. It is easier to count in double paces. After every hundred double paces, stop, look round to see how far you have come, and try to judge where you might be on the map.

Traditionally pacing has usually been calculated per 100 metres, but you may find it more convenient to remember your figure for half a centimetre or one centimetre on a map at 1:25,000 scale (e.g. the Explorer). Use the table below, going down from the number of double paces you took for 550 metres (or the figure closest to it).

on ground	on Explorer	double paces							
550 metres	22 mm	286	308	330	352	374	396	414	440
25 metres	1 mm	13	14	15	16	17	18	19	20
100 metres	4 mm	52	56	60	64	68	72	76	80
125 metres	5 mm, ½ cm	65	70	75	80	85	90	95	100
250 metres	10 mm, 1 cm	130	140	150	160	170	180	190	200

Before crossing the open field, identify on the map the various building you can see. See the shape of the land shown by the contours, especially the re-entrant on your right. Where is the lowest point on the Ridgeway path ahead (look at the contours and check when you get there)?

Continue on the Ridgeway, cross the drive and continue to the road.

Ahead you join a bridleway (longer green dashes) and on entering Goodmerhill Wood cross another one. Any waymarks will be blue, not yellow as for footpaths.

Make for Fugsdon Wood via the five-way junction. Note particularly the shape of the ground. The path junctions are distinct and waymarked, but you will come to at least one prominent path not marked on the map. The waymarking should be yellow for footpaths and blue for bridleways, though we often come across old Chiltern Society waymarking in white.

At about the "F" of Fugsdon Wood there is a prominent structure (old horse jump). From here, pace out 100 or 125 metres ahead, turn back and see what that distance looks like on the ground.

Continue, choosing your own route through High Scrubs and Low Scrubs (not on the road) to the car park at grid reference 852062. If your map shows an east-west bridleway of four dashes in High Scrubs, ignore it. Most of it has long ceased to exist on the ground, and the right of way has now been extinguished. The long, straight NW-SE bridleway has a high fence beside it and so is easily identifiable.

From the car park, go through the pedestrian gate into the National Trust land, and orientate your map. The fences meeting here at right angles give you a good guide (though the east-west fence may be obscured on the map by the NT boundary). Estimate the direction to the monument (in effect marked as a triangulation pillar or "trig point").

To set a compass course, put the compass on the map (which does not have to be orientated for this) with one of the long edges of the baseplate lined up from your present position to the monument (any arrow on the baseplate should point towards the monument, not towards your position!). Ignoring the compass needle, turn the circular housing until the parallel lines on it are parallel with the north-south grid lines on the map, with the N on the housing towards the north of the map. Now, with the compass baseplate pointing away from you, turn until the north (red) end of the compass needle is in line with the N on the compass housing. The baseplate should point in the direction you have already estimated for the monument.

Walk towards the monument in as straight a line as you can (which may not be the most obvious path). Is there more or less woodland here than shown on the map?

Just beyond the monument is the trig point (triangulation pillar) with a panel on top with lines to a number of prominent features (though most of them are too far away for the sort of mapreading we are practising here). Use the north line on the panel to set your map. Identify as many close features as you can, e.g. Beacon Hill, Ellesborough church, Chalkshire Farm and Wellwick Farm.

Move your compass about on the top of the trig pillar to see whether it is affected.

To continue northwards from the monument you have the choice of the footpath down the slope ahead or a detour to the bridleway to the east. Which do you think will be the gentler descent (look at the contours)?

Cross the road and go straight ahead across the golf course to the Aylesbury Ring. From here, using the blue 1 km grid squares as a guide, estimate the distance along the Aylesbury Ring south-westwards until it joins the road just before Little Kimble church. Then measure the distance as accurately as you can. Estimate how long it will take you to cover this distance, and note the time now. (Add 35-40% for time to the station.)

(If you go to the pub, note how much time you are "off course"!)

The route is now pretty straightforward, but do not switch off. It is much easier to keep track of your position as you go along than to find it again once you have lost it. Identify each feature as it comes into sight, and watch out for changes to the fences. In one place the route appears to be waymarked the wrong side of the fence.

On arriving at the road by the church, note the time, and work out (either now or later) your average walking speed. You may find it is less than you would have expected; stiles and navigation often mean that country walks go more slowly than what many people think of as their normal walking speed.

From here the quickest way to the station by road is obvious. If you have time to spare, you might like to explore further. The paths on this side of the railway are practically all on pasture; those beyond it are mostly on arable land. Little Kimble church has mediaeval wall paintings, and Great Kimble Church Civil War connections.

And finally (and you can do this at home) measure as accurately as you can the whole walk. Lay a thread or piece of thin string along the route and then measure it against the scale at the bottom of the map. Or lay the edge of a piece of paper along each stretch of the walk in turn, making a mark where the path turns significantly, and going on from there for the next stretch.

The length is concealed in the table given for checking pacing (don't look until you have done the measuring!). Take the largest number anywhere in that table, divide by 50, add a quarter of a kilometre, and that should be accurate to less than half a kilometre. That is for the circuit only; if you want to include the detours, round up to the next full kilometre, and if you went off for lunch in the pub, add an appropriate amount.

Disclaimer

This exercise makes no pretence of preparing you for walking in wild country, where you need mountaineering as well as advanced mapreading. If you go to mountains or moorland, please be very cautious, keeping to well defined routes and close to settlements as you gradually build up experience.

There are a number of commercial mapreading courses, about which we are not in a position to comment.

Three useful books are Wally Keay's "Land Navigation" (1989) published for the Duke of Edinburgh's Award Scheme, "Navigation and Leadership – a manual for walkers" (1994) published by the Ramblers' Association, and Julian Tippet's "Navigation for Walkers" (2001) published by Cordee, though on a few points their recommendations do not always agree with each other's or with those given here. The first two books mentioned refer to Ordnance Survey Pathfinder maps. These have now been superseded by the Explorer series.