



Pathfinder Honour: Workbook

Map & Compass



Name:

Club:

Date Started:

Date Completed:

Instructor Name:

Signature:

Club Director's Name:

Signature:

Please Award Patch:

Date:

To be signed by Authorised Person (ie District Director for Pathfinders) after satisfactory completion. Leaders, please see the Assessment Sheet for a checklist of practical requirements and a short test to check knowledge of honour.

Date Patch Presented

Map & Compass Honour

SECTION 1: THE MAP

Requirement 1.1: Know the following:

a.	What is a topographical map?	
b.	What is found on a topographical map?	
c.	Give 3 uses of a topographical map:	

Requirement 1.2: What is an orthophoto map?

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Requirement 1.3: Be able to recognize twenty signs and symbols found on a topographical map, giving some of each in the following categories:

- a. **Man made** (Use symbol 'M' in answers below)
- b. **Water feature** (Use symbol 'W' in answers below)
- c. **Vegetation feature** (Use symbol 'V' in answers below)

	<u>Map Feature</u>	<u>Category</u>
1.		
2.		
3.		
4.		
5.		

	<u>Map Feature</u>	<u>Category</u>
6.		
7.		
8.		
9.		
10.		

Map & Compass Honour

Requirement 1.4: Know and explain the following as they relate to elevation:

[Please use brief notes, diagrams or pictures]

a.	Contour lines:			
b.	Contour interval:			
c.	Ground formations:	<u>Valley</u>	<u>Ridge</u>	<u>Spur</u>
		<u>Escarpment</u>	<u>Knoll</u>	<u>Brow</u>

Map & Compass Honour

Requirement 1.5: Know and explain the following as they relate to distance:

[Please use brief notes, diagrams or pictures]

a.	How distance is defined:	
b.	The map scale:	
c.	How to measure linear distance:	
d.	How to estimate land distance:	

Requirement 1.6: Know and explain the following as they relate to a map grid system:

[Please use brief notes, diagrams or pictures]

a.	What is the grid system?	
b.	What is a six-figure grid reference?	
c.	<p>Rules for reading grid references:</p> <p><i>In your answer please give the grid references for points A & B</i></p>	<p>The diagram shows a grid with Eastings labeled 59, 60, 61, 62, 63, 64, 65 along the top and Northings labeled 26, 27, 28, 29, 30, 31 along the right side. An upward-pointing arrow on the left is labeled 'Northings' and a rightward-pointing arrow at the bottom is labeled 'Eastings'. Point A is marked with a dot at the intersection of Easting 61 and Northing 28. Point B is marked with a dot at the intersection of Easting 64 and Northing 30.</p>

Map & Compass Honour

Requirement 1.7: Know and explain the following in relation to map reading:

[Please use brief notes, diagrams or pictures]

a.	Grid North:	
b.	True North:	
c.	Magnetic North:	
d. & e.	Declination & Grid Magnetic Angle (ie G-MA or GMA):	

SECTION 2: THE COMPASS

Requirement 2.1: What are the 8 major points of the compass and their bearings?

[Please complete the table]

	<u>Point</u>	<u>Bearing</u>
	North	
a.		
b.		
c.		
d.		
e.		
f.		
g.		

Map & Compass Honour

Requirement 2.2: Identify the type of compass most popular with bushwalkers.

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Requirement 2.3: Know the parts of an orienteering compass. [Please complete the table]

	<u>Part name</u>
a.	
b.	
c.	
d.	
e.	
f.	
g.	

Requirement 2.4: Know and explain the following as they relate to Grid Bearings and Magnetic Bearings. [Please use brief notes, diagrams or pictures]

a.	What are Bearings?	
b.	How to calculate a Grid Bearing from the map:	
c.	How to convert a Grid Bearing to a Magnetic Bearing:	
d.	How to convert a Magnetic Bearing to a Grid Bearing:	
e.	How to take and march on a Magnetic Bearing:	
f.	What is Slipping and how to correct for it?	
g.	How to take a Back Bearing:	

Map & Compass Honour

Requirement 2.5: Know and explain the following as they relate to Resection.

[Please use brief notes, diagrams or pictures]

a.	What is Resection?	
b.	The two-bearing method of Resection:	
c.	The one-bearing method of Resection:	

Requirement 2.6: Know and explain how to orient your map by:

[Please use brief notes, diagrams or pictures]

a.	By inspection:	
b.	Using a compass:	

SECTION 3: DIRECTION WITHOUT THE AID OF A COMPASS

Requirement 3.1 Demonstrate how to find directions without the aid of a compass using the Southern Cross (ie Crux) method

[Please use brief notes, diagrams or pictures]

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Map & Compass Honour

SECTION 4: PRACTICAL

With the exception of Requirement 4.3, all of the following practical requirements are covered in previous requirements.

Requirement 4.1: Demonstrate how to:

- a. **Read six-figure Grid References.** Refer Requirement 1.6c.
- b. **Calculate a Grid Bearing from the map.** Refer Requirement 2.4b.
- c. **Convert Grid bearing to a Magnetic Bearing.** Refer Requirement 2.4c.
- d. **Take a Magnetic Bearing.** Refer Requirement 2.4e.
- e. **Locate a position using Resection.** Refer Requirement 2.5.

Requirement 4.2: Navigate to a target feature using a Magnetic Bearing.

Refer Requirement 2.4e.

Requirement 4.3: Prove your ability in the use of a map and compass by following a cross-country course with at least ten given readings or control points. Keep a log detailing:

- Grid references,
- Grid and magnetic bearings,
- Records of actual course taken.

Details (ie Grid references, Grid & magnetic bearings, Records of actual course taken).

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
8.	
9.	
10.	