

TRAINING DAY: Silver and Gold DofE Lesson plan: Map Reading

Learning outcomes:

By the end of the session all participants should be able to:

- Identify and demonstrate the preparatory skills needed to plan and execute routes.
- Enter route planning afternoon session with confident knowledge of simple map recognition.

(please note practical and compass skills will be taught while on their practice expedition)

Equipment needed: OS maps 1:25000 of area and 1:50000 of area. Whiteboard pens to make marks on maps which can then be rubbed off. A compass to demonstrate with.

	<u>Objective</u>	<u>Teaching and key questions</u>	<u>Time</u>
Preparatory map skills	The nature of maps	Find out what maps the participants have used before, if any? Share key map information- what area it will cover? Stress the importance of map reading in the outdoors and always having a designated person reading the map at all times.	2
	The use of 1:25 000 Explorer, 1:50 000 Landranger	Share the scale on the front of the map and explain the differences. What are 1:25000 maps better for? Why? When would you use a 1:50000 map? What does this mean for you when you are in the outdoors- why must you be aware of the scales?	2
	Map direction	How do you orientate the map (North, East, South, West) using basic compass directions to demonstrate.	1
	Scale and distance, measuring distance, distance and time	Using grid squares, average walking time at 4km an hour. How do we use this to plan and execute a journey? When teaching contours later- mention how this can slow average walking pace. Participants to work out how long it would take to walk from A to B on the map. Repeat if needed.	10
	Map recognition and key (Marginal information. Conventional signs)	Test with popular symbols, explain paths, roads and land access. Ensure they are familiar with the map symbols that they will encounter on their expeditions. Explain how to use key. When learning grid references in the next section- use this to assess their confidence with map symbols e.g what will you find at grid reference?	10
	Grid references.	Find out what the participants already know about grid references. For bronze they must be able to read a 6 figure grid reference. Model finding a grid reference, REPEAT. Using a map symbol from the last teaching point- ask them to find you a symbol and give you a grid reference. If there are many e.g phone boxes in this area- all participants could find a different one on map and record grid reference then exchange with the person next to them to see if they can follow the grid references.	15
	Understanding contours, recognition of major land forms such as hills, valleys, ridges, spurs.	How to identify contour lines on a map- how to use the gradient, height and shape of the land to plan their route and link back to pace and route options.	10
	Interpretation of contours into mountain land forms and relief, slope and gradients and the determination of height.	.Participants should understand how you can work out the height, gradient and shape of the land using the lines on the map. They should also be able to recognise what is safe to walk up and what isn't.	10

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	Pacing and compass skills	<ul style="list-style-type: none"> -The influence of ferrous objects and electromagnetic fields. -Magnetic variation and the relationship between True, Magnetic and Grid Norths. -Direction from the compass in terms of the cardinal and inter-cardinal points. Measuring direction in degrees. -Setting the map by the compass. -Determining the direction of footpaths or direction of travel. -Travelling on a bearing. Obtaining a grid bearing from the map, allowing for magnetic variation where appropriate. 	
	The ability to give a verbal description of a route linking two places using the information from above.	Finish the time by finding places using grid references and going over basic skills to link a route from A to B. Use this time to assess participants' confidence and spend time refreshing any of the points above with particular individuals	

BXM Expeditions