

Journal of Maps

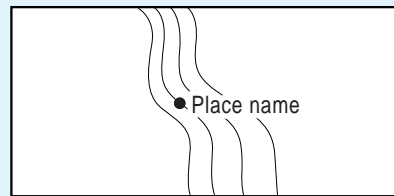
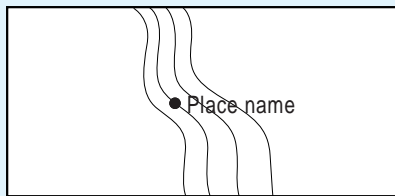
Guide to common errors in map production

At the Journal of Maps we receive many map submissions and, with strong competition for publication, it is important for authors to make sure that the standard of cartography is high.

Our experience in undertaking reviews has highlighted a range of common problems, many of which can lead to manuscript rejection. This guide therefore offers some advice on good practice regarding cartographic design for submission of maps to the Journal of Maps.

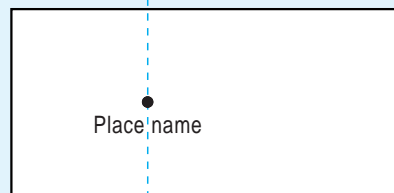
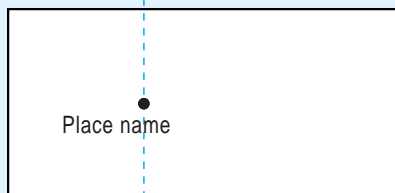
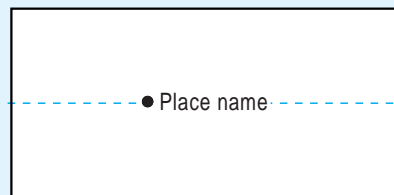
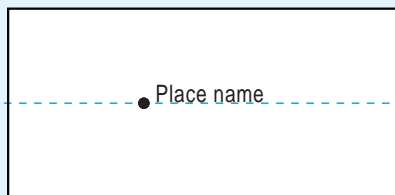
Mandatory points are marked with red circles, other recommendations are marked with blue circles.

1



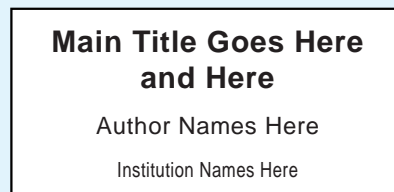
*Text should always appear clear from background map information.
Ensure that a mask or outline stroke is used to make text clear and legible.*

2



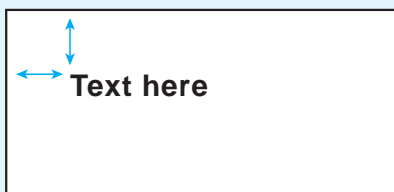
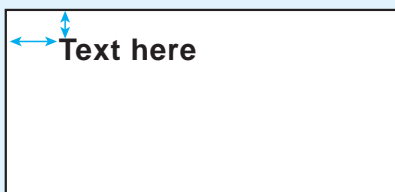
Where possible, try to ensure that text labels sit centrally on the associated symbol.

3



Try not to mix alignments on map titles - either set left, or set centrally.

4



Text should sit at equal distances from the frame.

5

<i>Water bodies</i>	<i>Mountain</i>	COUNTRY NAME
Place names	CAPITAL CITY	STUDY AREA

Use different type styles for different features.

6

<table border="0"> <tr><td>1</td><td>Lower</td><td>1</td><td>Lower</td></tr> <tr><td>2</td><td>Lower</td><td>2</td><td>Lower</td></tr> <tr><td>3</td><td>Lower</td><td>3</td><td>Lower</td></tr> <tr><td>4</td><td>Lower</td><td>4</td><td>Lower</td></tr> <tr><td>5</td><td>Upper</td><td>5</td><td>Upper</td></tr> <tr><td>6</td><td>Upper</td><td>6</td><td>Upper</td></tr> <tr><td>7</td><td>Upper</td><td>7</td><td>Upper</td></tr> <tr><td>8</td><td>Upper</td><td>8</td><td>Upper</td></tr> <tr><td>9</td><td>Upper</td><td>9</td><td>Upper</td></tr> <tr><td>10</td><td>Upper</td><td>10</td><td>Upper</td></tr> </table> <p style="text-align: center;">X ✓</p>	1	Lower	1	Lower	2	Lower	2	Lower	3	Lower	3	Lower	4	Lower	4	Lower	5	Upper	5	Upper	6	Upper	6	Upper	7	Upper	7	Upper	8	Upper	8	Upper	9	Upper	9	Upper	10	Upper	10	Upper	<table border="1"> <tr><td><input type="checkbox"/></td><td>Shading name</td></tr> <tr><td><input type="checkbox"/></td><td>Shading name</td></tr> <tr><td><input type="checkbox"/></td><td>Shading name</td></tr> </table> <p style="text-align: right;">X</p> <table border="1"> <tr><td><input type="checkbox"/></td><td>Shading-name</td></tr> <tr><td><input type="checkbox"/></td><td>Shading name text here</td></tr> <tr><td><input type="checkbox"/></td><td>Shading name</td></tr> </table> <p style="text-align: right;">✓</p>	<input type="checkbox"/>	Shading name	<input type="checkbox"/>	Shading name	<input type="checkbox"/>	Shading name	<input type="checkbox"/>	Shading-name	<input type="checkbox"/>	Shading name text here	<input type="checkbox"/>	Shading name
1	Lower	1	Lower																																																		
2	Lower	2	Lower																																																		
3	Lower	3	Lower																																																		
4	Lower	4	Lower																																																		
5	Upper	5	Upper																																																		
6	Upper	6	Upper																																																		
7	Upper	7	Upper																																																		
8	Upper	8	Upper																																																		
9	Upper	9	Upper																																																		
10	Upper	10	Upper																																																		
<input type="checkbox"/>	Shading name																																																				
<input type="checkbox"/>	Shading name																																																				
<input type="checkbox"/>	Shading name																																																				
<input type="checkbox"/>	Shading-name																																																				
<input type="checkbox"/>	Shading name text here																																																				
<input type="checkbox"/>	Shading name																																																				

Text in legends and keys should be correctly aligned.

7

<table border="0"> <tr><td><input type="checkbox"/></td><td>Lake sediments and ephemeral lakes (distal glaciﬂuvial sediments trapped in lava field)</td></tr> <tr><td><input type="checkbox"/></td><td>Glaciﬂuvial deposits (including debris flow-fed alluvial fans / aprons previously activated by glacial meltwater)</td></tr> <tr><td><input type="checkbox"/></td><td>Till and moraines dating to the Little Ice Age and more recent glacier advances (areas that are unlikely to have ice cores)</td></tr> </table> <p style="text-align: right;">X</p>	<input type="checkbox"/>	Lake sediments and ephemeral lakes (distal glaciﬂuvial sediments trapped in lava field)	<input type="checkbox"/>	Glaciﬂuvial deposits (including debris flow-fed alluvial fans / aprons previously activated by glacial meltwater)	<input type="checkbox"/>	Till and moraines dating to the Little Ice Age and more recent glacier advances (areas that are unlikely to have ice cores)	<table border="0"> <tr><td><input type="checkbox"/></td><td>Lake sediments and ephemeral lakes (distal glaciﬂuvial sediments trapped in lava field)</td></tr> <tr><td><input type="checkbox"/></td><td>Glaciﬂuvial deposits (including debris flow-fed alluvial fans / aprons previously activated by glacial meltwater)</td></tr> <tr><td><input type="checkbox"/></td><td>Till and moraines dating to the Little Ice Age and more recent glacier advances (areas that are unlikely to have ice cores)</td></tr> </table> <p style="text-align: right;">✓</p>	<input type="checkbox"/>	Lake sediments and ephemeral lakes (distal glaciﬂuvial sediments trapped in lava field)	<input type="checkbox"/>	Glaciﬂuvial deposits (including debris flow-fed alluvial fans / aprons previously activated by glacial meltwater)	<input type="checkbox"/>	Till and moraines dating to the Little Ice Age and more recent glacier advances (areas that are unlikely to have ice cores)
<input type="checkbox"/>	Lake sediments and ephemeral lakes (distal glaciﬂuvial sediments trapped in lava field)												
<input type="checkbox"/>	Glaciﬂuvial deposits (including debris flow-fed alluvial fans / aprons previously activated by glacial meltwater)												
<input type="checkbox"/>	Till and moraines dating to the Little Ice Age and more recent glacier advances (areas that are unlikely to have ice cores)												
<input type="checkbox"/>	Lake sediments and ephemeral lakes (distal glaciﬂuvial sediments trapped in lava field)												
<input type="checkbox"/>	Glaciﬂuvial deposits (including debris flow-fed alluvial fans / aprons previously activated by glacial meltwater)												
<input type="checkbox"/>	Till and moraines dating to the Little Ice Age and more recent glacier advances (areas that are unlikely to have ice cores)												

Ensure that text in legends and keys doesn't get too close to the frame.

8

<p>This study maps the spatial relationships between sociodemographic characteristics (poverty trajectories, racial/ethnic/nativity composition) and food environments in Alameda County, California. Our map presents poverty trajectories and racial/ethnic/nativity composition at the tract level, as well as maps</p> <p style="text-align: center;">X</p>	<p>This study maps the spatial relationships between sociodemographic characteristics (poverty trajectories, racial/ethnic/nativity composition) and food environments in Alameda County, California. Our map presents poverty trajectories and racial/ethnic/nativity composition at the tract level, as well as maps</p> <p style="text-align: center;">✓</p>
--	--

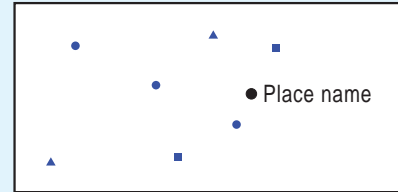
Try to avoid hyphenating words if possible.

9



Ensure that text isn't too small - generally a minimum of 7pt should be used.

10



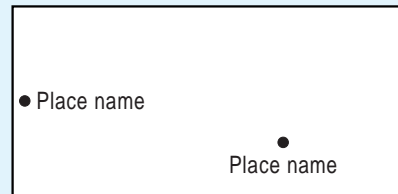
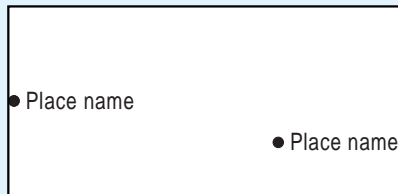
Ensure that symbols are large enough to be seen clearly.

11



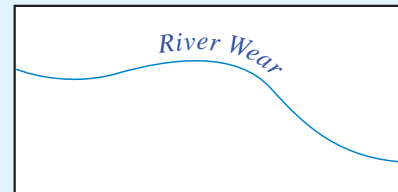
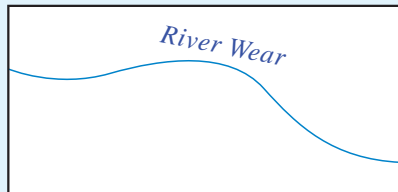
Ensure that text isn't cropped by the frame.

12



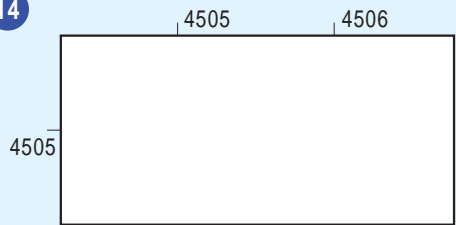
Ensure that text and symbols don't get too close to the frame. Extend the frame to accommodate text if necessary.

13

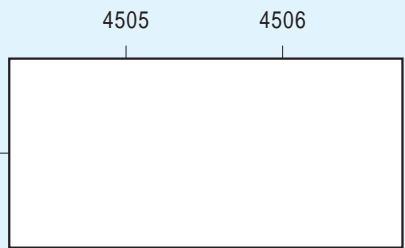


River labels should flow smoothly along the line of the river.

14



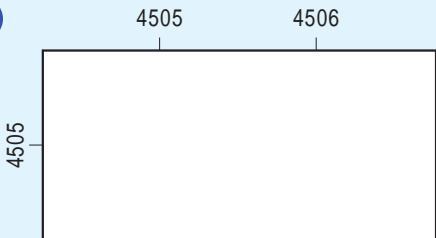
X



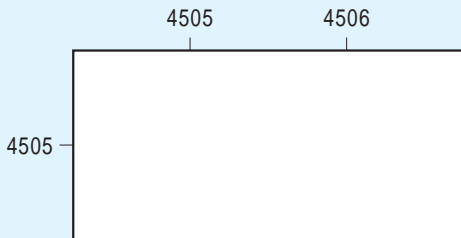
✓

Ensure that grid labels are centred on the tick.

15



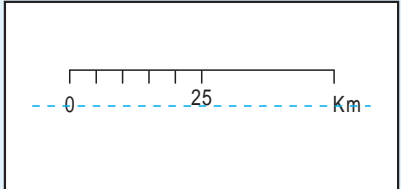
X



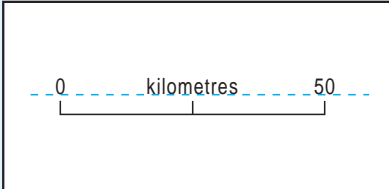
✓

Try to ensure that text on grids is presented horizontally if space allows. Remove decimal places on grid labels.

16



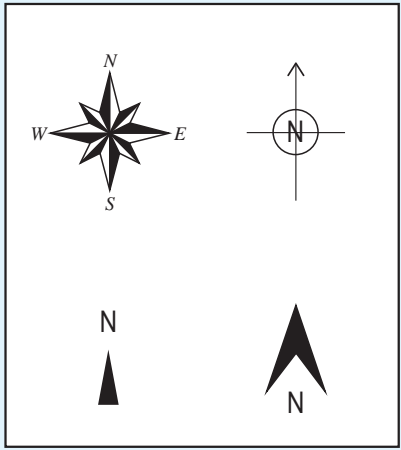
X



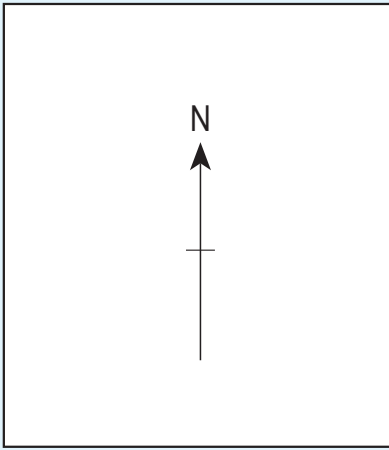
✓

Scale bars should be kept simple. Spell 'kilometres' and 'metres' in full if space allows. "kilometers" should be spelt in US or UK English dependent upon the manuscript.

17



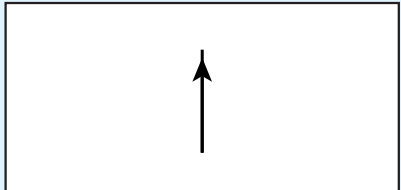
X



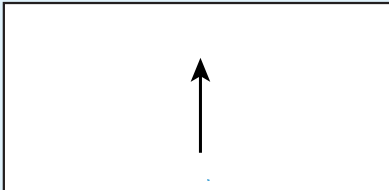
✓

North points should not be over elaborate or too simple. Computer, or GIS, generated symbols are best avoided.

18



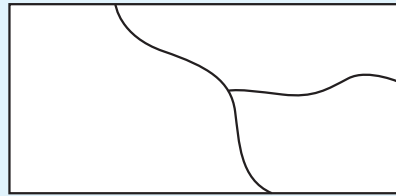
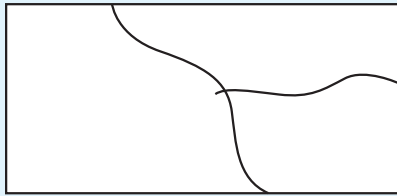
X



✓

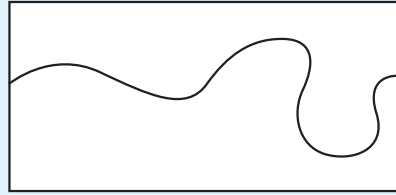
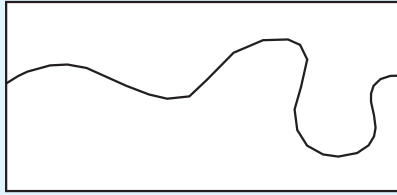
Arrowheads should sit at the end of the line.

19



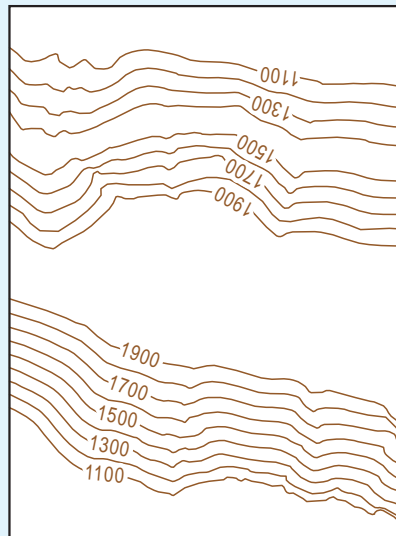
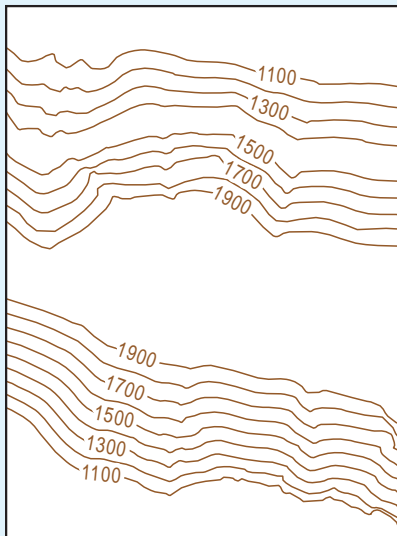
Ensure that linework is neat and that lines don't cross other lines.

20



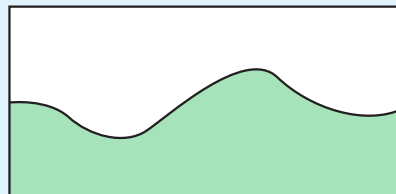
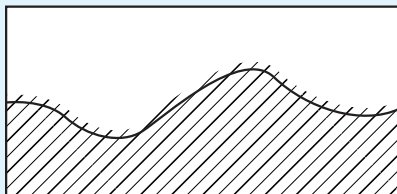
Try to ensure that linework is smoothed out, rather than jagged and computer-generated in appearance. Make sure linework is appropriate to the scale; if detailed, then generalise before smoothing.

21



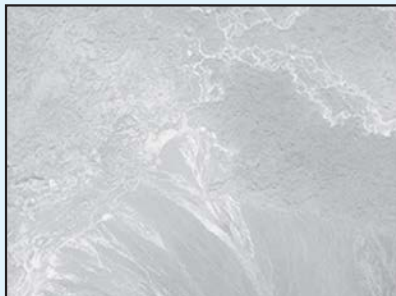
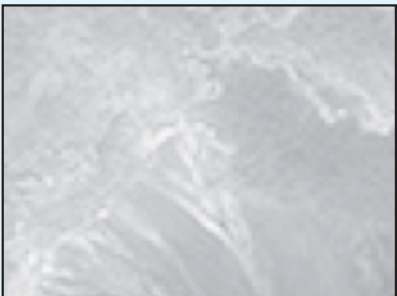
Contour labels should be orientated towards the highest point.

22



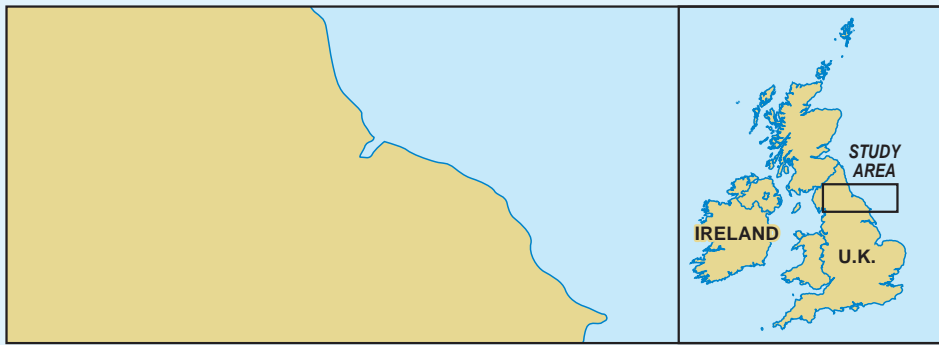
Ensure that shadings are contained within the area. Unless necessary it is best to avoid symbolised polygon fills and use solid areas of shading instead.

23



Ensure that DEM images are full resolution (300 dpi or above).

24



Ensure that location inset maps are clear, and show the study area in a wider context.

25



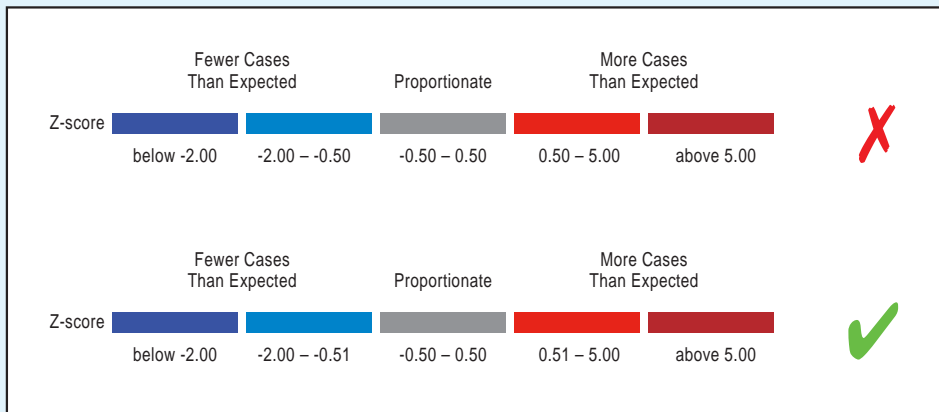
Fit text neatly according to available space.

26

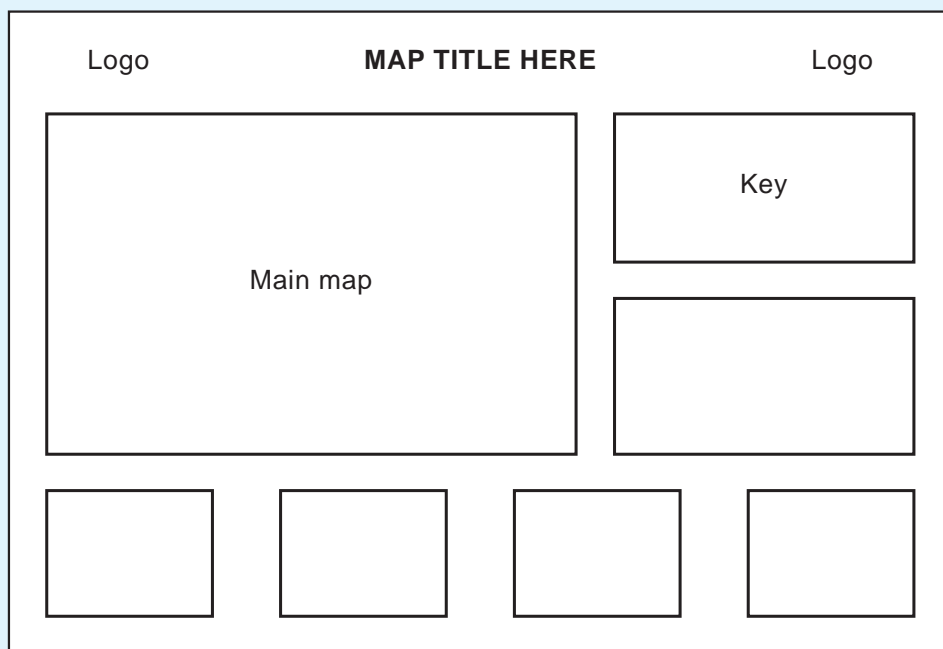
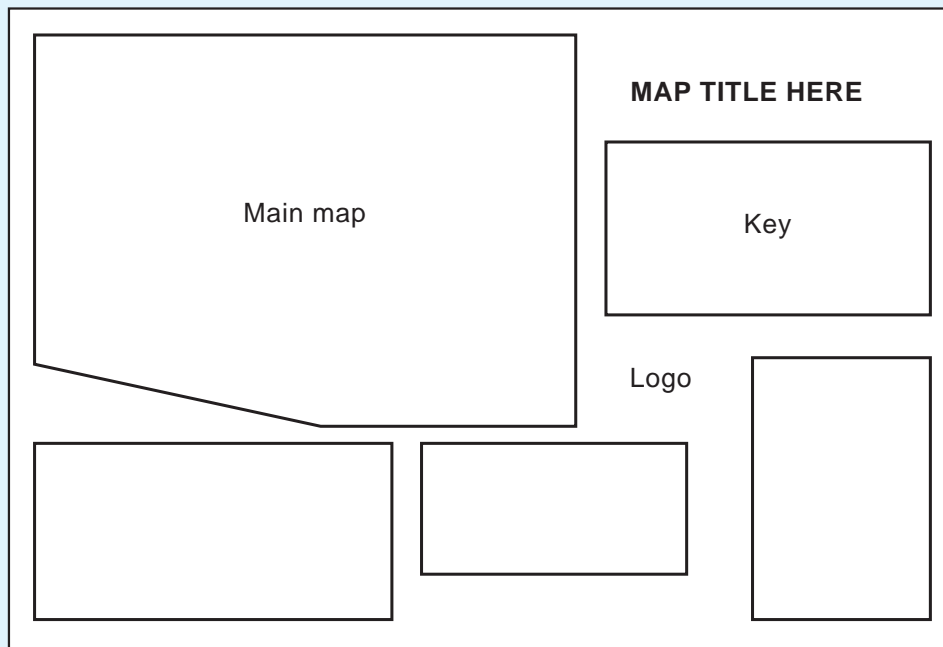


Try to use subtle colour schemes to avoid maps appearing garish.

27



Make sure that choropleth map class boundaries do not overlap.



Ensure that your map is neatly laid out.

If adding the logos of institutions then ensure that high-resolution versions are used, and not just low-resolution jpeg files from the web.

Try not to 'flood' the map with too much information.

Consider what it is that you are trying to communicate and only include relevant information.

Ensure that a Journal of Maps copyright statement appears on each map.

Remember to include technical details of map projection, coordinate system, map orientation etc.

References:

Dent, B.D. (1993). *Cartography: thematic Map Design* (5th ed). Dubuque, Iowa: William C Brown.

Kraak, M.J. and Ormeling, F. (2002). *Cartography: visualization of spatial data* (2nd ed). Harlow: Pearson.

MacEarchen, A.M. (1995). *How maps work: representation, visualisation, and design*. London: Guildford Press.

Robinson, A.H., Morrison, J.L., Muehrcke, P.C., Kimerling, A.J. and Guptil, S.C. (1995). *Elements of cartography* (6th ed). Chichester: Wiley.