Geographic conventions

Compiled by the Queensland Studies Authority
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About this advice
This advice is intended to help teachers implement the syllabus in their school setting. It provides information about the following:

- geographic conventions
- structure and use of geographic conventions.
Geographic conventions

It is important that students know and understand the accepted conventions of the various modes of representing geographic information.

Maps

As a representation of the Earth’s surface (or part of it), maps can vary from simple location drawings to multi-layered GIS projects. The following conventions relate to all maps regardless of size or purpose.

| Border | Positions the map within the white space of the page  
|        | Assists to define the extent of the map |
|Orientation | As either:  
|        | north point  
|        | latitude and longitude |
|Legend (or key) | List of the symbols and colours used:  
|        | usually located in the bottom left- or right-hand corner  
|        | uses shading  
|        | when boxes are used — are no more than 1 cm²  
|        | is titled and, if appropriate, incorporates a description of the symbolisation used on the map, e.g. Population Density: People per square kilometre  
|        | uses accepted symbolisation, e.g. towns, urban areas, railways, national parks |
|Title | Defines the map’s location and its purpose  
|        | Written in UPPER CASE |
|Scale | As either  
|        | line  
|        | ratio |
|Source | Where possible the source of the map should be acknowledged using an accepted referencing system such as author–date |

- Avoid cutting and pasting maps from the internet that fail to follow these basic conventions.
- Hand-drawn maps should be completed in black ink and pencil (where shading is used). Shading should resemble the feature drawn, e.g. streams in blue, vegetation in green.
- When maps are constructed under test conditions using Geographic Information Systems (e.g. Practical Exercises) students must have individual computer access.
- Maps used in reports should be referred to as figures and numbered accordingly, e.g. FIGURE 1: THE LOCATION OF CHATHAM ISLAND RELATIVE TO NEW ZEALAND AND AUSTRALIA
Specialised maps

**Choropleth maps** should show the following additional features:

- **Shading** — close to monochromatic (e.g. yellow/orange/red/brown) in pencil if hand drawn
- **Colours** — lighter for lower categories, darker for higher categories
- **Legend** — title incorporating a description of data, e.g. *Life expectancy by region*
- **Legend boxes** (ruler-drawn boxes no more than 1 cm² each) — determination of categories:
  - 3–6 categories (depending on number of items in data set. Use data that will not take too much time to map)
  - Categories do not need to have same value range but should be based on appropriate groupings
  - All categories should be represented on map
  - Categories should be listed in descending order (darkest colour at the top)
Isoline maps (contours, isobars, isohyets, isotherms) should show the following additional features:

- Determination of intervals — sufficient to highlight patterns and show variation

**Satellite images**

The following conventions relate to the use of satellite images:

- Border
- Orientation
- Title in upper case including figure number, e.g. FIGURE 3: LANDSAT IMAGE OF EVANSVILLE, INDIANA AND NORTHERN KENTUCKY AFTER A TORNADO
- Scale (if possible)
- Source — using accepted referencing system and date of download
- Possible annotations, e.g. Note the pale interrupted stripe across the image showing the track the tornado made as it moved from south-west to north-east
- When satellite images are included in a report they must be referred to in text, e.g. Figure 3 highlights the linear spatial impact of the tornado hazard and the difficulty in predicting its path.
FIGURE 3: LANDSAT IMAGE OF EVANSVILLE, INDIANA AND NORTHERN KENTUCKY AFTER A TORNADO

Note the pale, interrupted stripe across the image showing the track the tornado made as it moved from south-west to north-east.

Photographs (aerial and ground)

The following conventions relate to the use of photographs:

- Border
- Title in upper case including figure number, e.g. FIGURE 4: AN OBLIQUE AERIAL PHOTOGRAPH OF THE INNER CITY SUBURB OF KEDRON
- Scale (if possible). Ground photos taken at close range (such as sand dune erosion or soil profiles) may include some indication of scale, such as a ruler or object
- Source — using accepted referencing system and date of download
- Possible annotations, e.g. This photograph shows the area through which the proposed Brisbane Airlink will pass. The project will include Australia’s longest road tunnel and a flyover at an estimated cost of $4.6 billion.

FIGURE 4: AN OBLIQUE AERIAL PHOTOGRAPH OF THE INNER CITY SUBURB OF KEDRON

This photograph shows the area through which the proposed Brisbane Airlink will pass. The project will include Australia’s longest road tunnel and a flyover at an estimated cost of $4.8 billion.

Source: Old Haunt: Brisbane — photo taken from a hot air balloon, photo from Cyron Ray Macey’s flickrstream accessed 27 March 2009, Creative Commons: Attribution-Noncommercial 2.0 Generic licensed.

- When photographs are included in a report they must be referred to in text.
- Avoid cutting and pasting photographs from the internet that fail to follow these basic conventions.
**Diagrams**

Diagrams include cross-sections, transects, line drawings, flow charts and graphic organisers.

The following conventions relate to the use of diagrams:

- **Border**
- **Title in upper case including figure number**
- **Labelling of key features of interest**
- **Shading (using pencil if hand drawn)**
- **Scale (if possible/applicable)**
- **Source**
- **Possible annotations**
- When diagrams are included in a report they must be referred to in text.
- Avoid cutting and pasting diagrams from the internet that fail to follow these basic conventions.

**Graphs**

The following conventions relate to the use of graphs:

- **Border**
- **Title in upper case incorporating a description of the data and including a figure number, e.g. FIGURE 2: HOUSEHOLD TYPE INNER NORTH-EASTERN SUBURBS OF BRISBANE**
- **Horizontal axis labelled with numbers and words**
- **Vertical axis labelled with numbers and words**
- **Determination of scale/intervals such that patterns or trends can be determined without exaggeration**
- **Legend/key where segments or sectors are coloured, as in compound and composite bar graphs and pie graphs**
- **Source and date of download if applicable**
- **Possible annotations**
- When graphs are included in a report they must be referred to in text.
Specialised graphs

**Age-sex pyramids** (population pyramids) should show the following additional features:

- Title in upper case incorporating place and year of data
- Horizontal axis separating females (right-hand side) and males (left-hand side)
- Vertical axis using five-year intervals

**Climate graphs** should show the following additional features:

- Title in upper case stating name and location (latitude and longitude)
- Horizontal axis showing the months of the year
- Right vertical axis showing rainfall in millimetres
- Precipitation shown by 12 vertical columns (without gaps) at the bottom of the graph
- Left vertical axis showing temperature in degrees celsius
- Temperature shown by a smooth curved line
- Determination of scale/intervals such that patterns or trends can be determined without exaggeration

**Scatter graphs** should show the following additional features:

- Horizontal axis — independent variable (e.g. income)
- Vertical axis — dependant variable (e.g. life expectancy)
- When graphs are included in a report they must be referred to in text.
- When graphs are constructed under test conditions using computers (e.g. Practical Exercises) students must have individual computer access.
**Tables of data**

The following conventions relate to the use of tables of data:

- Tables should be numbered
- Title in upper case incorporating place and description of data, e.g. TABLE 2: GHANA’S COCOA PRODUCTION (TONNES) 1979–2003
- Source using accepted referencing system and date of download
- Tables are not figures
- When tables are included in a report they must be referred to in text

**TABLE 2: GHANA’S COCOA PRODUCTION (TONNES) 1979–2003**

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (tonnes)</th>
<th>World cocoa prices ($US/tonne)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>265 076</td>
<td>2007</td>
</tr>
<tr>
<td>1980</td>
<td>296 419</td>
<td>3000</td>
</tr>
<tr>
<td>1981</td>
<td>257 974</td>
<td>1763</td>
</tr>
<tr>
<td>1982</td>
<td>234 882</td>
<td>1375</td>
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<tr>
<td>1983</td>
<td>178 626</td>
<td>1985</td>
</tr>
<tr>
<td>1984</td>
<td>158 955</td>
<td>2335</td>
</tr>
<tr>
<td>1985</td>
<td>174 809</td>
<td>2220</td>
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<td>1986</td>
<td>219 044</td>
<td>1765</td>
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<td>1987</td>
<td>227 765</td>
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<td>300 101</td>
<td>967</td>
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<tr>
<td>2003</td>
<td>496 846</td>
<td>1256</td>
</tr>
</tbody>
</table>


- All figures and tables should be well presented, neat and convey information with clarity and accuracy. There should be no ambiguity.