# 1 Geographical concepts and questions

## Introduction

Geographers investigate and interpret the *places* that make up our world by exploring, analysing and understanding their characteristics and the *processes* that shape them. Geographers use a number of concepts in this process. Concepts are the big, organising ideas which, together, uniquely belong to Geography as a field of study.

VCE Geography is underpinned by ten interrelated key geographical concepts. These should form part of your vocabulary and guide you in your thinking, description, analysis, synthesis and communication in Geography. The concepts are used in conjunction with skills, and are applied to topics of study to create a uniquely geographical way of investigating and understanding the world.

In VCE Geography, the ten key geographical concepts are: *place*, *scale*, *distance*, *distribution*, *movement*, *region*, *change*, *process*, *spatial association* and *sustainability*. It will become clear through your work with the concepts in this chapter that they interconnect with, and support one another extensively.

The purpose of this chapter is to provide an understanding of, and some experience with, using key concepts that are of importance to the study of Geography, particularly as they relate to *changing* land use and land cover. Your aim should be to understand and apply each concept as a means of thinking and working geographically.



▲ **Figure 1.1** Sassafras Creek, Sassafras

▲ **Figure 1.2** Stringybark Creek, Mt Evelyn

# Key geographical concepts in context

## *Place*

‘Where’s your *place*?’ It is a common enough question to ask someone where they live, but there is more behind this question than you might think. A reply might be as generic as a suburb, as specific as a street address, or (with the aid of a smartphone) even a latitude and longitude. The latter two are regarded as absolute locations, there being no other *place* on Earth that meets that locational definition. In addition, a six-figure grid reference from a topographic map will allow you to give an absolute location. Location is the ‘where of *place*’ and is an important component of *place* in its own right. For example, Sassafras Creek flows through the town of Sassafras in Melbourne’s Dandenong Ranges. The latitude and longitude of Sassafras is 37° 52′ S latitude, 145° 21′ E longitude. Stringybark Creek flows through Mt Evelyn which is located at 38° 78′ S latitude, 145° 38′ E longitude. Until these are seen on a map or visited in the field, there is very little information about their respective locations. Both creeks run though very different rural–urban areas, with figures 1.1 and 1.2 providing more information on each *place* to enable you to infer more about each location.

Relative location refers to the *distance* and direction from one *place* to another. The use of *place* names, landmarks and *regions* helps to specify the relative location of one *place* by comparing to the location of another *place*.

Understanding a *place* relates to the perception of, and meaning people attach to a location and its immediate surroundings; this creates their ‘sense of *place*’. Though people may recognise the significance of the *place* as a home, the sense of *place* is naturally much greater for the person living there because of their direct attachment to, experiences in, and valuing of that *place*.

With the meaning of *places* comes value. A value could be the monetary value for a property, but for a natural landscape, the *place* is valued on the basis of other, less tangible qualities such as aesthetic beauty, untouched remoteness or, for some people, a spiritual significance and attachment to *place* going back many generations.

*Place* is important when considering land use *change*. *Places* on rural–urban fringes are constantly under pressure of development particularly in large, growing urban areas. Perceptions about *change* in some *places* will be affected depending on the impact on the environment (as shown in figures 1.1 and 1.2) and their significance to others. For example, is the *change* close to a national park or sites of Indigenous significance?

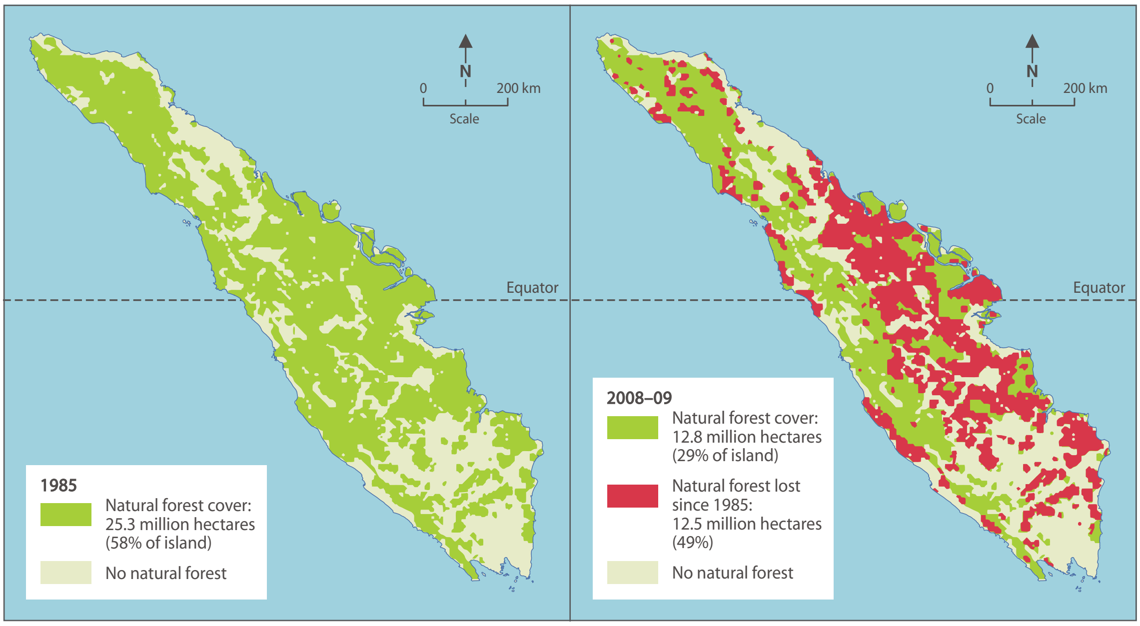
There are also significant *places* undergoing land cover *change*. For example, the extent of forest removal in Sumatra shown in figure 1.3 has produced different responses depending on individual values, beliefs and circumstances of people living close by and further away. People gaining employment and an income from forest products have one view about the *change* in land cover in Sumatra compared to geographers and biologists studying the same forests for biodiversity and water quality.

## *Scale*

*Scale* refers to the size of something compared with something else and is used in one of two practical ways in Geography.

In one sense, we use *scale* on maps to determine the size relationship between the reality of something on the Earth’s surface and the size at which that thing can be represented on a much smaller map. The *scale* of a map influences how it can be used. Smaller-*scale* maps depict a larger area in less detail, often being useful to show an overview or context for what is being studied. A map of Australia and surrounding islands would be a small-*scale* map. The *scale* of such a map may be 1:16 000 000. Large-*scale* maps show smaller areas in greater detail. For example, topographic maps showing individual buildings and minor as well as major roads are usually large-*scale* maps. The *scale* of






▲ **Figure 1.3** Sumatra’s *changing* land cover, 1985–2009

**Figure 1.4** The *scale* of a sandstorm event in China in 2010 as a result of increasing dryland areas in Mongolia


| | |
|---|---|
| **Statement:** | One centimetre (on the map) represents one kilometre (on the earth) |
| **Linear:** | 0 1 2 3 centimetres — Scale |
| **Ratio:** | 1 : 100 000 |

**Figure 1.5** Map *scale* can be expressed as a statement, a ratio or in linear format.

a topographic map may be 1:25 000. Figure 1.4 shows the extent — that is, *scale* — of a sandstorm over China. By reading the *scale* on the map, observations and conclusions can be made about the impact of this *process* and its links to land use *change* in Mongolia. *Scale* on a map can be expressed in various ways, as shown in figure 1.5.

The second use of *scale* is observational. These are the logical and descriptive size-based units into which geographers divide the world in order to structure the study and understanding of *places*, *regions* and phenomena. The *scales* geographers use are summarised in figure 1.6.

Land cover *changes* resulting from deforestation, desertification, melting sea ice and sea level *change* vary in their *scale* of *distribution* and impact. At times these events are observed and measured at a local or national *scale*. A number of case studies in this textbook are provided at a range of *scales*. The example of loss of forest cover in Sumatra is a *regional scale* (see figure 1.3, page 3). Sometimes the *change* can be observed at a global *scale* such as surface temperature *changes* shown in figure 1.7.

Geographers require the ability to freely zoom in and zoom out in their *scale* view, when seeking explanations, relationships, influences and outcomes of and between phenomena.

## *Distance*

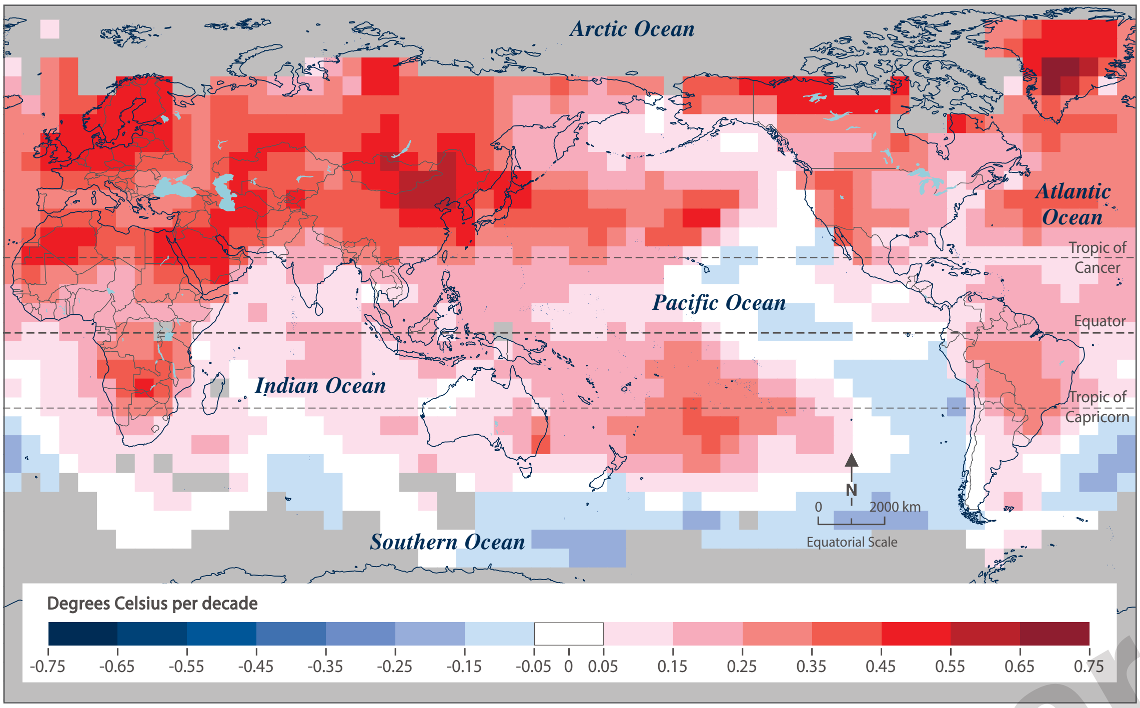
*Distance* is measured in a number of ways. In its simplest form, it is the space between two different locations and can be determined using an absolute measure such as kilometres. *Distance* is used to assist with defining where things are in space, often also using direction. As an example, Orbost is 375 kilometres east of Melbourne.

*Distance* is clearly used as an indication of proximity, which itself often relates to the existence of relationships between things. Greatly distant phenomena are less likely to influence one another.

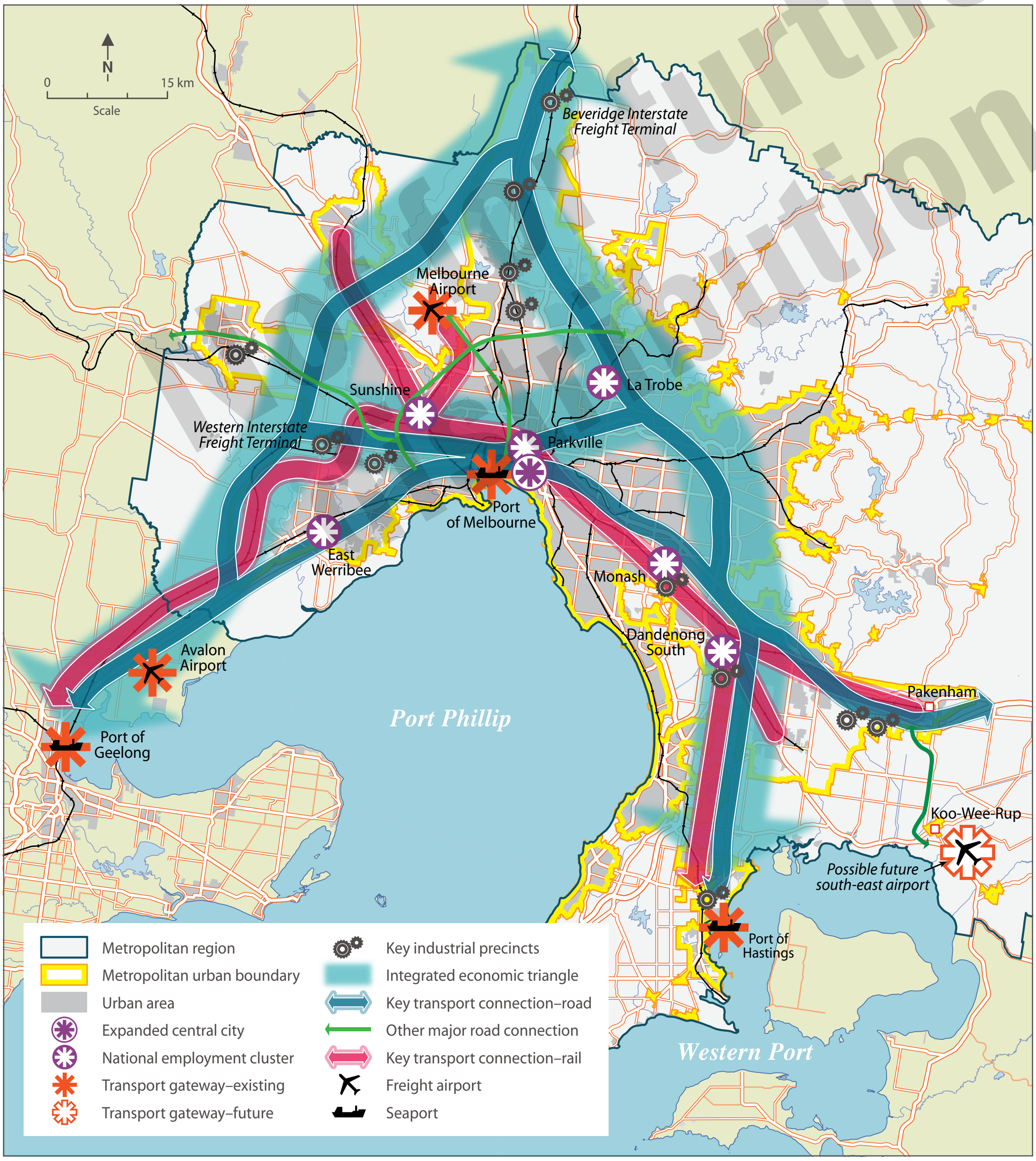
**Figure 1.6** Applying observational *scale* in Geography

| OBSERVATIONAL *SCALE* | EXAMPLES |
|---|---|
| Local | Involving a limited area such as a farm, shopping centre, a suburb or rural town; the immediate area around a location |
| National | Involving an entire county, or being of national significance and impact |
| International | Involving two or more countries, crossing national borders |
| Global | Involving the entire Earth, or impacting on the planet as a whole |
| *Regional* | Flexibly defined, varies in size and nature (see *Region*) |

Increasing *scale*




▲ **Figure 1.7** Global surface temperature changes between 1979 and 2005




▲ **Figure 1.8** Plan Melbourne showing the predicted corridors of urban growth for Melbourne until 2050

Relative *distance* is a second broad category that can be measured in other ways. The amount of time it takes to travel a given *distance* (e.g. 'I live 20 minutes away from here'), or the cost of travelling a certain *distance* (e.g. it's expensive to fly to South America), are examples of relative *distance*. It is also possible to use less tangible measures such as psychological *distance*, where familiar *places* seem closer than less familiar ones (e.g. 'I thought the trip to Mildura would be much faster by train').

*Distance* can be applied in various ways to understand land use *change*. For example, when planning for growth in Melbourne's urban area, planners need to consider the extent and *distance* of key transport infrastructure such as ports, airports, railways, and major highways and local roads. *Distances* from the CBD and other major cities and towns also need to be considered. Figure 1.8 shows the relevance of *distance* when considering Melbourne's future growth.

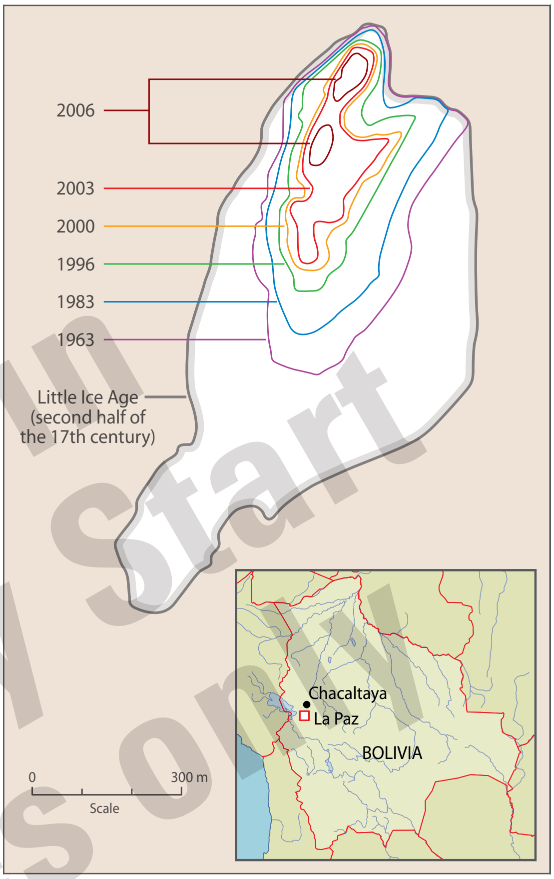
## Distribution

*Distribution* involves the arrangement of features or objects on the Earth's surface. *Distribution* can occur at all *scales*, and often patterns can be observed and described as the arrangement or density of phenomena. Figure 1.9 shows the global *distribution* of glaciers, ice caps and ice sheets.

The *distribution* of land use *change* and land cover *change* is not uniform across the Earth or within a given country or *region*. This is due to a range of factors including differences in the physical landscape and natural environments. Significant differences in policies, management strategies and socioeconomic conditions also have an impact on the location and extent of land use *change* and land cover *change*.

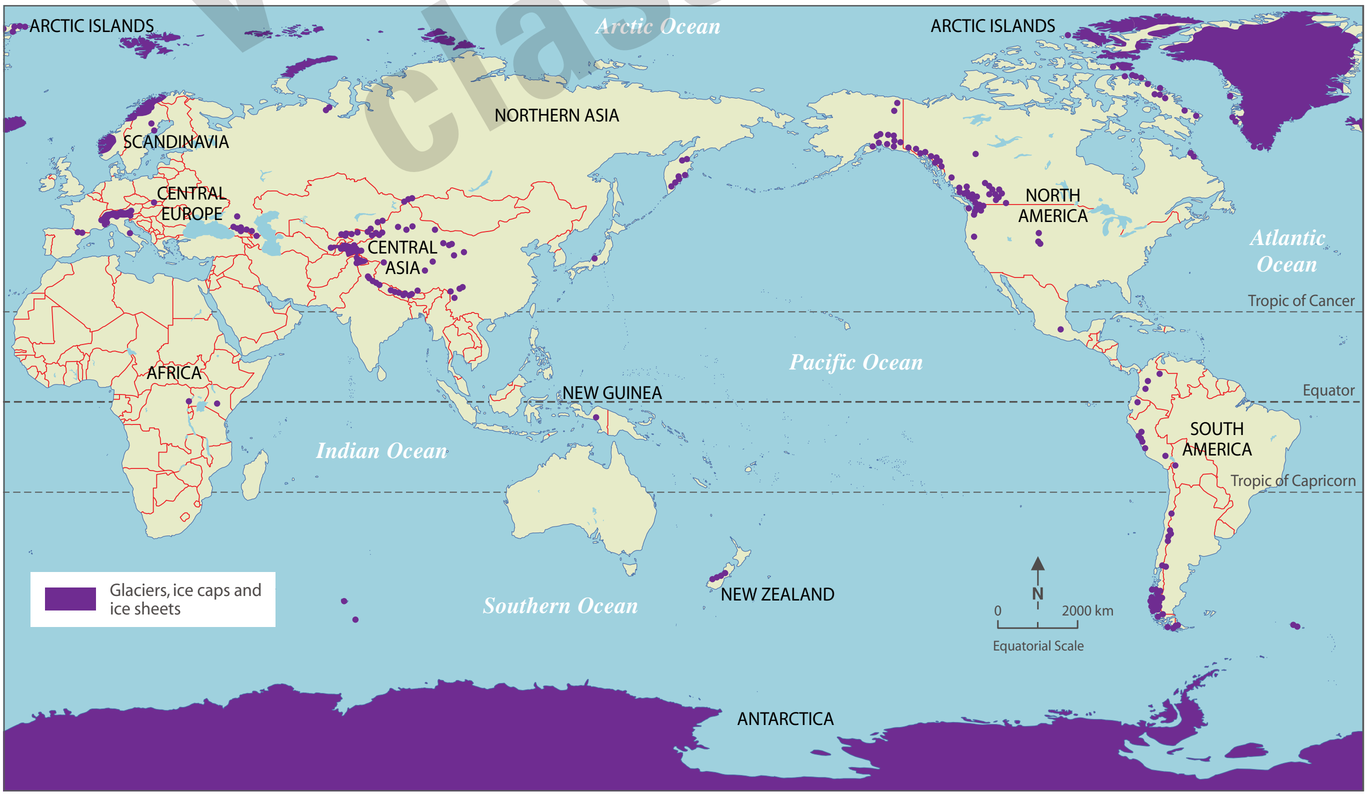
## Movement

*Movement* involves a *change* in location of phenomena such as people, goods and ideas through travel or flow. The development of transport infrastructure and mode of transport can have an impact on the *movement* of goods and services, and is an important consideration in urban planning and land use *change*. The *movement* of people to outer suburbs and urban–rural fringes can rapidly alter land use.




▲ **Figure 1.10** *Movement* of ice in the Chacaltaya Glacier, Bolivia

▼ **Figure 1.9** The global *distribution* of glaciers, ice caps and ice sheets



*Movement* is an important consideration in land cover *change*. Consider *regions* that are increasingly affected by desertification. The impact of this *process* can be the *movement* of people from rural to urban areas; or the *movement* of sand and soil no longer held in *place* by vegetation resulting in dust and sand storm events. Figure 1.10 shows an example of the *movement* of ice in the Chacaltaya Glacier, Bolivia, over time. The concepts of *movement*, *change* and *distribution* are involved in this example.

Where *movement* is concerned, *distance*, direction, the mechanism bringing about *movement*, in addition to the frequency, volume or magnitude of *movement*, may all be considered. *Movement* is represented in different ways graphically — colour and lines can show the date of spread while arrows can show the *distance* and direction of *movement*.

## *Region*

A *region* is a definable area containing one or more characteristics that distinguish it from surrounding areas. *Regions* can be defined at a range of *scales* by physical characteristics such as mountain ranges and drainage basins, politically by official decisions about boundaries and names, and by common usage or for a given purpose by selecting a particular characteristic such as the western suburbs of Melbourne. Smaller *regions* can exist within larger ones, and different *regions* can overlap.

*Region* is important in terms of *scale*. *Regions* can be seen and defined at each of the local, national and international *scales*. Figure 1.11 provides examples of *regions* at a variety of *scales* that can be classified into various types. In this way, *region* itself can be used to represent a *scale*.

Deforestation, a land cover *change*, varies from *region* to *region* across the globe. The reasons for the differences can be associated with the amount of forest cover in each *region*, the policies in *place* to manage forests, socioeconomic pressures in each *region*, the use made of the wood and the type of land use replacing the forest. Figure 1.12 provides some information on the trees removed for industrial use and woodfuel, and shows patterns across *regions*.

**Figure 1.11** Examples of *regions* at different *scales* and how they are defined

| ***REGION*** | ***SCALE* RELATIONSHIP** | **DEFINED BY…** |
|---|---|---|
| Inter-tidal zone | Local | Physical |
| Chadstone Shopping Centre | Local | Land use |
| Otways rainforest | Local | Vegetation |
| Melbourne Central Business District | Local | Political/administrative, land use |
| Victorian Central Highlands | National | Political/administrative, physical |
| Great Victoria Desert | National | Climate, physical |
| South-eastern Australia | National | Location, common use |
| Amazon Basin | International | Physical |
| Tropics | International | Location, climate |
| Sub-Saharan Africa | International | Location, common use |

## *Change*

*Change* relates to the degree to which something alters, or is modified, over time. As phenomena studied in Geography are dynamic, they are often best understood by investigating how the focus of investigation has developed over space and time. It is also valuable to examine the effects and impacts of *change*, and this often relates to *sustainability*.



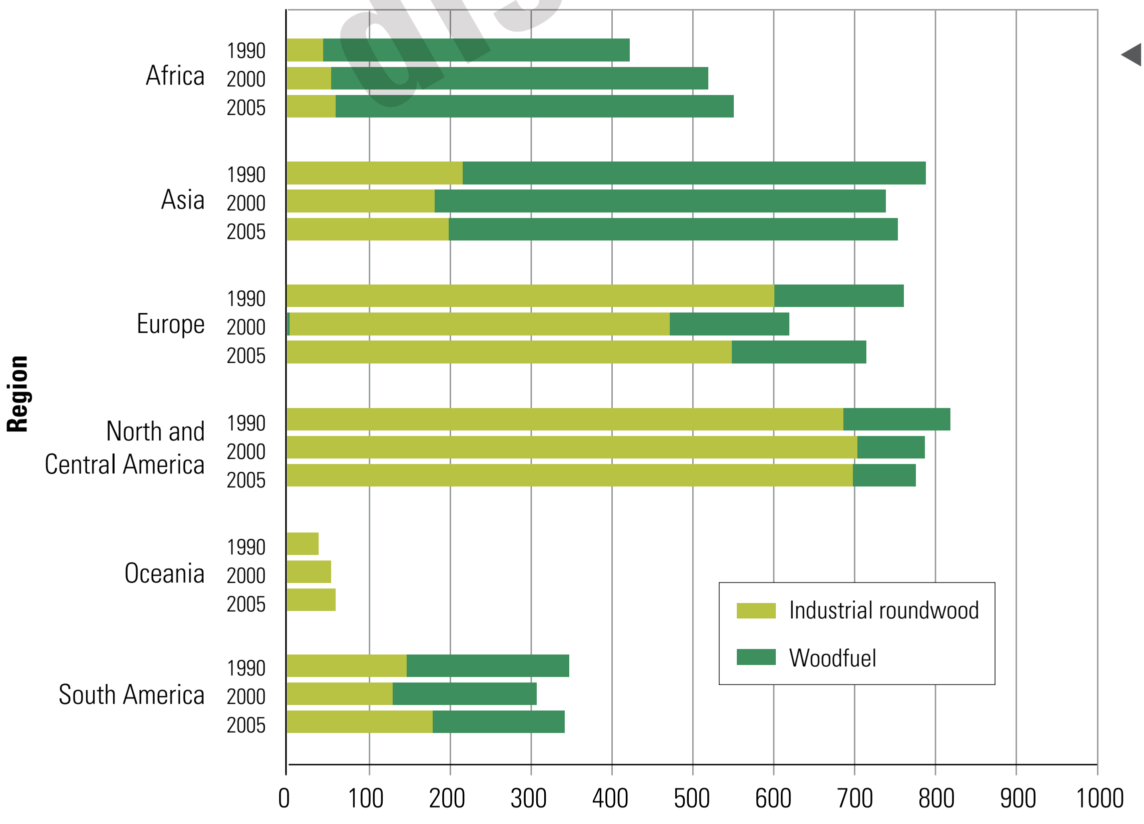
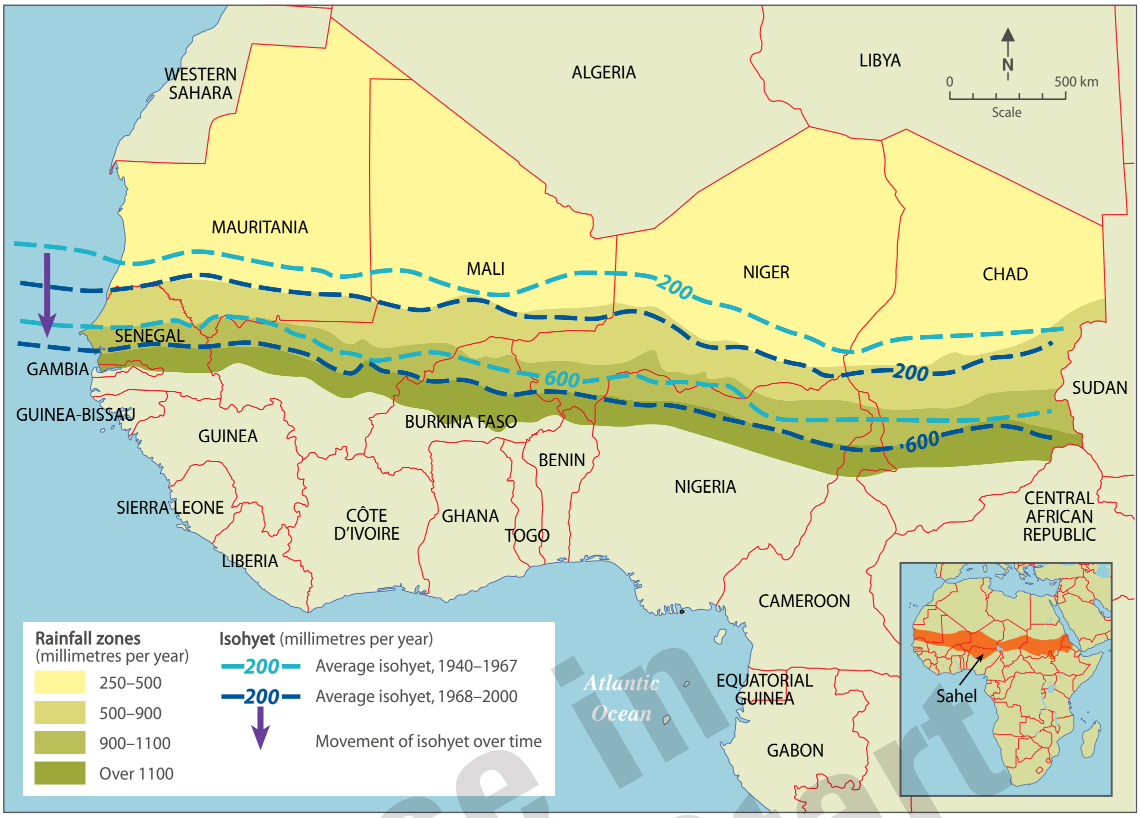



**Figure 1.12** Trends in wood removals, 1990–2005 (million square metres) by *region*




▲ **Figure 1.13** *Changing* climate patterns in the Sahel, Africa



*Change* can be spatial and *place*-related. This can include *changes* in the location (that is, *movement*), size, *distribution*, density or pattern of phenomena. The transformation of the use, nature or quality of a *place* can also be identified. *Change* can be non-spatial and still be of relevance to Geography such as *changes* in land use policies. Varying occurrences of something over time can provide important information for geographers. Temporal *change* — or *change* over time — is one such example, such as the *change* in natural forest cover in Sumatra shown in figure 1.3 (see page 3).

Rates of *change* are important. In Geography *change* can be studied in time *scales* which range from millions of years for geological and landscape *change*, to a matter of a few years, months, days or even hours. Figure 1.13 shows the physical *change* in rainfall pattern in the Sahel. The data allows a consideration of the rate of *change* that has occurred in this *region*.

## Process

*Processes* involve a series of ongoing events or steps that lead to the development, *change* or preservation of something. Often *processes* create cause-and-effect relationships between things. *Processes* can operate within and between *places*, and at a variety of *scales*. For example, planning *processes* such as the decision to build a freeway in an urban area can result in *changed* patterns of *movement* of people and have an impact on population densities. Examples of this can be seen in figure 1.14.

Complex interrelationships between different *processes* can have an impact on one another. The water cycle is a complex *process* which involves the *movement* of water in different physical states in the environment. Figure 1.15 shows the impact of urban *change* on the water cycle. *Changes* in land use can alter this *process* quite dramatically. The impact of increasing atmospheric carbon has resulted in measurable *changes* to the climate across the Earth. There are complex interrelationships between the *processes* of deforestation and climate *change*. Climate *change* has an impact on the rate of desertification, sea level rise and melting of glaciers and sea ice. The result of *changes* to complex *processes* has far-reaching impacts on both the environment and people. Chapters 2–9 investigate these *processes* further.

## Spatial association

It is common to find things occurring together on the Earth's surface. *Spatial association* is the degree to which two or more phenomena are similarly *distributed* or arranged on the Earth's surface. Where *distribution* patterns of phenomena are consistently similar, a strong or high degree of *spatial association* exists. For example, there is a strong *spatial association* between areas of the Earth with low rainfall and low population density. When one phenomenon has a high frequency and another phenomenon is lower in frequency, there is a weak or low degree of *spatial association*. For example, there is a low *spatial association* between urban areas and the *distribution* of native animals in Australia. It is also possible for there to be no *spatial association* at all. The task of the geographer is to determine the degree of *spatial association* and explore potential underlying reasons for the existence of a relationship, or lack thereof.

*Spatial association* can also be viewed through the perspective of impacts. The coincidence between phenomena spatially might occur by chance, but the fact that they do have overlapping *distributions* has consequences. Figure 1.9 (see page 6) shows the

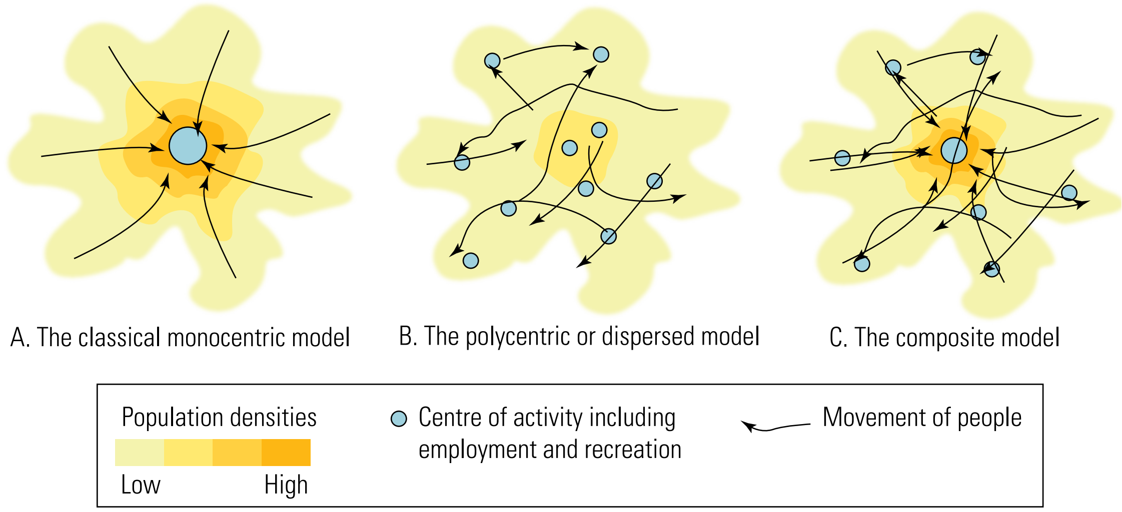
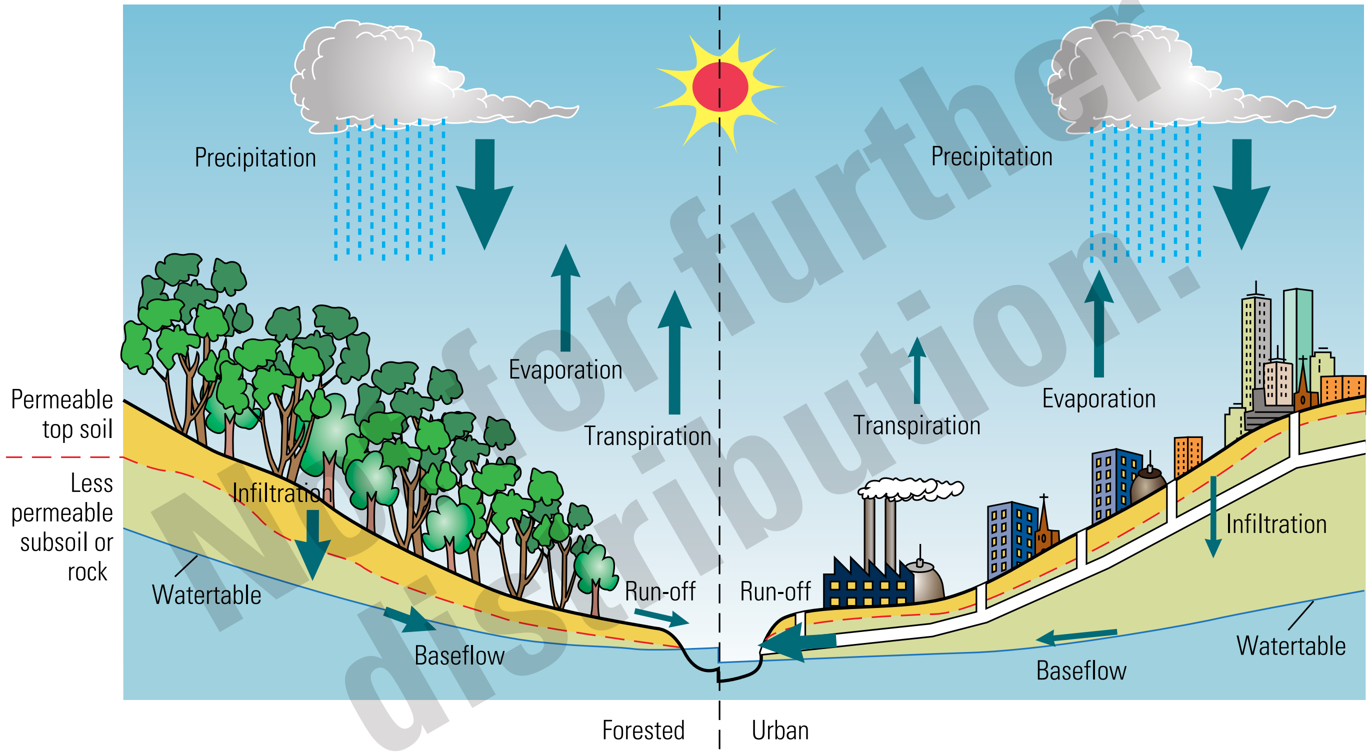



**Figure 1.14** Processes involved in models of urban morphology

**Figure 1.15** The impact of urban development on the water cycle





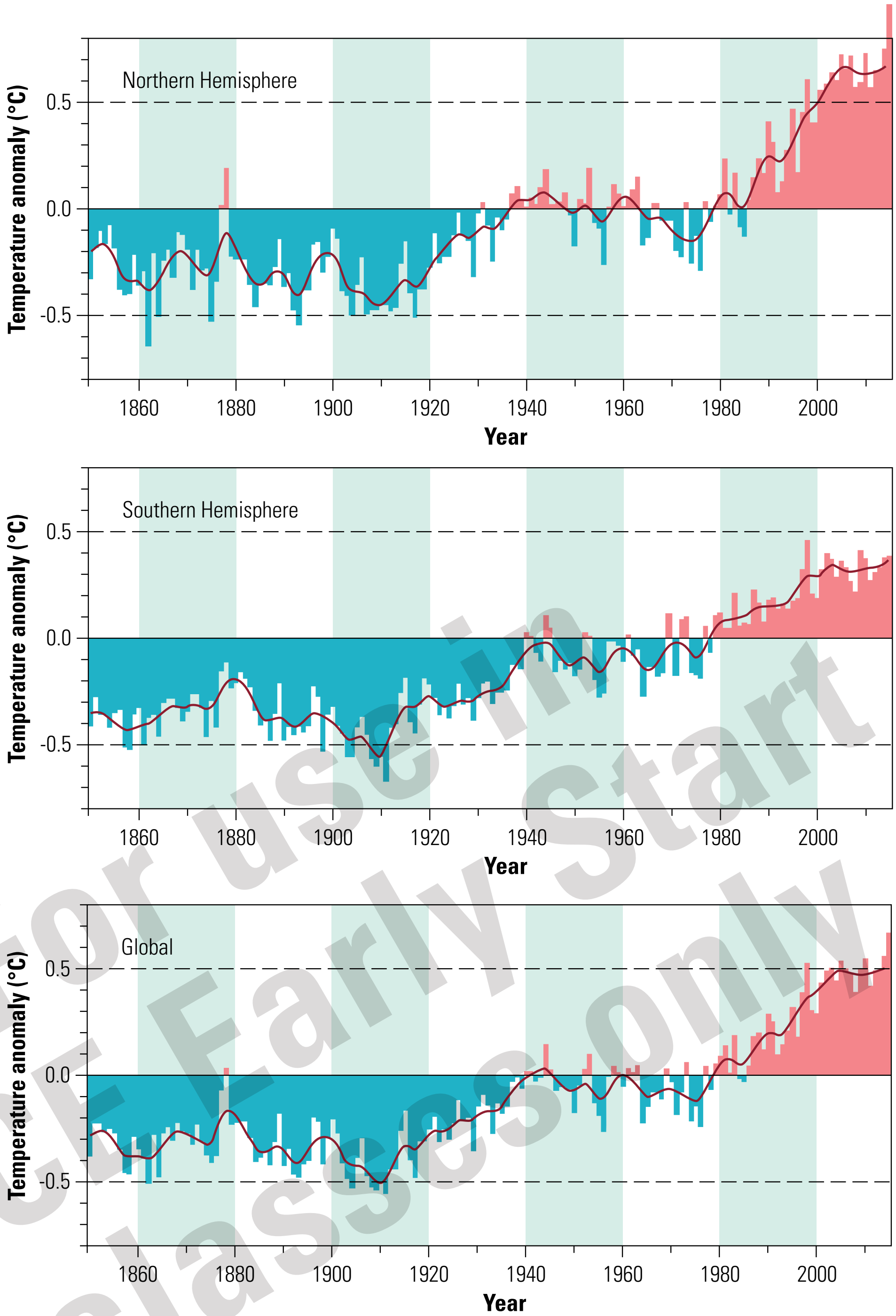

*distribution* of glaciers, ice caps and ice sheets. The study of topographic and temperature maps in an atlas will show a high degree of *spatial association* between the location of ice areas and the *distribution* of average temperatures and high elevation areas.

## *Sustainability*

*Sustainability* is a different concept from the others and it encourages the formation of evaluations or judgements about current situations and their potential *change* into the future. *Sustainability* is the capacity of the environment and social systems to support people and other living things now and into the future. It involves environmental, social, economic and political considerations. There is a strong relationship between *changing* land cover and climate *change*. Chapter 8 examines how *changing* land cover contributes to climate *change* and impacts negatively on the *sustainability* of forest areas. At a global *scale* temperature trends, as shown in figure 1.16, indicate the dramatic *changes* in global temperature over time.

Local land use *change* can have an impact on people and the environment, and the ability of the land to respond in the medium and long term. Clearing land for housing on the rural–urban fringe can trigger feedback mechanisms in surface water flow, infiltration rates and erosion (see figures 1.1 and 1.2, page 2). *Changing* land use from rural productivity to urban housing can have an impact on agricultural production and soil health. Careful planning must be included in any land use decisions for the best *sustainable* outcomes to be achieved from the *change*.

**Figure 1.16**
Global temperature trends, 1850–2011






## ACTIVITIES

### Place

1. What is the difference between an absolute and a relative location? Give an example of each.
2. a. Using Google Earth or a smartphone GPS receiver, determine the absolute location of the following in latitude and longitude: the MCG; Melbourne Airport carpark; Lake Hattah in Hattah-Kulkyne National Park, Victoria.
   b. Describe your perceptions of these three *places*. How might this sense of *place* differ for other people?
   c. Using Google Earth, determine the relative location of each of these *places* from your home and your school.
3. Identify the land use for each *place*. How could each land use affect the sense of *place* of each? Discuss in small groups.
4. Examine figures 1.1 and 1.2 (see page 2).
   a. Contrast these *places* in terms of their probable surrounding land use.
   b. Explain how the *process* of urbanisation could cause a *change* in the natural stream habitat in Stringybark Creek.
5. Examine figure 1.3 (see page 3). Survey your family and friends about their perception of Sumatra in relation to the extent of forest lost. What are these perceptions based on? How might these perceptions differ for people living in Sumatra?

## ACTIVITIES *continued*

### Scale

6. Write two summary statements with the following starting stems:
   - Small-*scale* maps tend to show . . .
   - Large-*scale* maps tend to show . . .
7. Express the *scale* in figure 1.4 (see page 4) as a ratio and a statement.
8. Use the map *scale* in figure 1.4 (see page 4) to calculate the largest area of heavy dust storm in China. What is the furthest *distance* that dusty areas have moved from Mongolia and in which direction?
9. Study figure 1.7 (see page 5). Write a short paragraph that describes the changes in surface temperatures between 1979 and 2005 at a global *scale*. What impact might these *changes* have on the extent of desertification and sea ice and glacier melting in specific *regions*?
10. Allocate an observational *scale* for the following land use and land cover *changes* (you may have to research the event): melting Greenland ice sheet; removal of Malaysian rainforests for palm oil plantations; thawing permafrost in the Arctic Circle; expanding desertification in the Sahel in Africa; glacial retreat in the European Alps; expanding urbanisation on Melbourne's rural–urban fringe; redevelopment of inner urban areas to residential uses.

### Distance

11. Using figure 1.8 (see page 5) and/or Google Earth's *distance* measuring tool, calculate the approximate *distance* of the following in the predicted 2050 urban growth corridor:
    a. the Port of Hastings to the Port of Melbourne by rail
    b. the western interstate freight terminal to the Port of Geelong by road
    c. proposed south-east airport to Melbourne CBD by straight line.
12. Use Google Earth or an atlas to measure the *distance* between where you live and the location of Sassafras Creek (figure 1.1, page 2) and Stringybark Creek (figure 1.2, page 2).

### Distribution

13. Refer to figure 1.9 and describe the *distribution* of glaciers, ice caps and ice sheets. Use an atlas to include specific place names in your description.
14. Choose one of the *regions* with glaciers and use Google Earth to zoom in to the area. Provide another description of the *distribution* of the glaciers at this different *scale*.

### Movement

15. Study figure 1.10 (see page 6). How has *movement* been depicted in this map?
16. Use the *scale* of the map to measure the extent of glacial retreat in the Chacaltaya Glacier in Bolivia.
17. Study figure 1.4 (see page 4). Use the *scale* and *distance* to describe the *movement* of sand and dust from Mongolia.

### Region

18. Study figure 1.12 (see page 7) and answer the following (use data from the graph in your answers):
    a. Which *region* has produced the greatest amount of industrial roundwood over time? Which has produced the least?
    b. Name the two *regions* that rely most heavily on removing wood for fuel?
    c. Which *region* has shown the greatest change in industrial roundwood production?
19. Create a table similar to figure 1.11 (see page 7) and provide three more examples for each *region* shown in relation to land use and/or land cover *change*.

### Change

20. Conduct some research to provide two examples that can reflect each the following geographical *changes* specifically related to land use/land cover *change*: *movement*, *size*, *distribution* and *density*. For each example, provide a location and its rate of *change*.
21. Use figure 1.13 (see page 8) to describe the *change* that has occurred to the average rainfall (isohyet line) in the Sahel. Describe the rate at which this *change* has taken place.
22. Compare the rates of *change* for desertification occurring in the Sahel and the rate of *change* in an earthquake disaster.
23. State the rate of *change* shown in figure 1.3 (see page 3).

### Process

24. Refer to figure 1.14 (see page 9). Describe how each planning model could result in different land use *change*, population density and people *movement*.
25. Using the information provided in figure 1.15 (see page 9), outline how the water cycle *process* has altered as a result of urban *change*.

### Spatial association

26. Use atlas maps which show world temperatures and elevation. Use these maps and figure 1.9 to describe the degree of *spatial association* between the location and *distribution* of glaciers, ice caps and ice sheets, and elevation and temperature.

### Sustainability

27. Outline the pattern of temperature *change* that has occurred in the Northern Hemisphere and Southern Hemisphere, as well as globally, between 1850 and 2011 in figure 1.16.
28. Sustained increased global temperatures are having an impact on land cover, especially by increasing areas of desertification and melting sea ice and glaciers. Use two examples to outline how temperature *changes* are affecting the *sustainability* of environments and economies.

## Analysing and interpreting data

In many cases in Geography, analysing and interpreting data relates directly or indirectly to the key geographical concepts. Developing a conceptual understanding and applying concepts to information analysis is the basis of many activities in this textbook. Some questions or tasks will include a concept by name, while others imply the use of one or more concepts in your thinking.

Tips for using concepts:

- In written responses to tasks that name a particular concept, it is usually appropriate to use that concept by name in your answer.
- Conceptual understanding can often be demonstrated visually; for example, in a map, graph or diagram. Examples of concepts shown well on maps include *scale*, *distance*, *distribution*, *region*, *movement*, *change* and *spatial association*. Commonly graphed examples include *distribution*, *movement* and *change*, particularly those involving a time *scale*. *Process* might be appropriately shown in a flow diagram
- Higher quality written responses often communicate clear conceptual understanding, without necessarily using the concept by name.
- Avoid using concepts in responses unnecessarily. Doing so does not always show an understanding of the concept.

Throughout the chapters in this book, instructional (or directive) words are used in many activities. They specify how you should approach and complete a given task. Understanding these words and knowing what is expected of a response are important skills, and will improve the quality of your answers and enhance geographical understanding.

The following table provides explanations for instructional or directive terms found in this book, or likely to be used in class activities, assessments or fieldwork.



| | |
|---|---|
| Account for | State reasons to explain an event or why something exists. |
| Analyse | Show the essence of something (e.g. a situation or a map) by breaking it down into separate points and critically examining the relationship between each part. |
| Annotate | Add labels, comments or explanatory notes to images, maps, graphs, diagrams or text. |
| Apply | Use particular skills or incorporate specific information and ideas to a situation. |
| Assess | Weigh up the value of or judge the strengths and weaknesses of something. Similar to 'evaluate', but more about the overall situation. |
| Calculate | Use data or statistics provided in various forms to determine an answer. |
| Categorise | Arrange or group by distinctive characteristics. |
| Clarify | Make clear or simplify facts, opinions, issues or arguments. |
| Classify | See 'categorise', above. |
| Comment on | Give an opinion and explain reasons for support or a lack of support for an idea or issue. Can involve discussing the relevance or merit of a provided statement. |
| Compare | Show the similarities or differences when examining two situations, events, ideas, features or processes. |
| Consider | Think about what has been observed about something, being able to support observations using appropriate evidence. |
| Construct | Put together an argument, point of view or a series of reasons to account for a particular situation. It also means to create, develop or draw a map, diagram, graph or table. |
| Contrast | Highlight the differences when examining two or more situations, events, ideas, features or processes. |
| Define | Provide a meaning or identify the essential qualities of a key term, word or expression. |
| Demonstrate | Show or provide proof by using examples from specific case studies, events or issues. |
| Describe | Provide characteristics of a situation explaining what is observed. |

| | |
|---|---|
| Design | Decide upon the look and functioning of a product such as a map, diagram or social survey. |
| Distinguish | Identify what is different between one or more similar situations or phenomena. |
| Discuss | Show understanding of a situation, where appropriate, by presenting both sides of a situation, issue or event. Include the strengths and weaknesses of available data. Usually involves more detail than 'explain'. |
| Evaluate | Weigh up and interpret a statement, viewpoint or situation and state a conclusion about its value or importance. Similar to 'assess', but with a focus on the outcome or result. Include consideration of different opinions. |
| Evaluate the relative importance of | A combination of 'rank' and 'evaluate' |
| Explain | Relate cause and effect. Give reasons why a situation exists or a *process* occurs. |
| Explore | Adopt a questioning approach, looking at all aspects of the situation, including points for and against. Similar to 'discuss'. |
| Identify | Establish the nature of a situation by distinguishing its features and naming them. |
| Illustrate | Make something clear and explicit, by providing examples or evidence. May require the use of visual representations (e.g. maps, diagrams, tables, graphs and statistics). |
| Interpret | Examine visual data such as a map, graph or diagram, to make sense of what is being depicted and to draw conclusions. |
| Justify | Use examples or find sufficient evidence to show why, in your opinion, a viewpoint or conclusion is correct. |
| Observe | Identify significant items from numerical or visual data, or fieldwork. |
| Outline | Summarise the main points of given information, or events, in a situation. |
| Predict | Suggest what may happen in a given situation based on evidence gathered. |
| Quantify | Use numbers or statistics to describe a phenomenon and support conclusions. |
| Rank | Arrange factors, outcomes or elements in order of importance. |
| Recommend | Provide reasons in favour of a proposal. |
| Reflect on | Think about what has been presented, considered or observed and communicate those thoughts. |
| Sketch | Refers to a map, diagram or field drawing; a relatively simple, quick, hand-drawn representation that follows accepted, relevant conventions, but without an accurate *scale*. |
| Suggest | Present a hypothesis or theory about a particular situation. |
| Summarise | Retell concisely the relevant and major details of arguments, events and patterns. |
| To what extent do you agree | A clear statement of agreement, disagreement or partial agreement concerning a proposition is required. See 'assess'. |