



GEOGRAPHY

ATAR course examination 2022

Marking key

Marking keys are an explicit statement about what the examining panel expect of candidates when they respond to particular examination items. They help ensure a consistent interpretation of the criteria that guide the awarding of marks.

Section One: Multiple-choice**20% (20 Marks)**

Question	Answer
1	a
2	c
3	d
4	c
5	a
6	d
7	b
8	d
9	c
10	b
11	d
12	a
13	d
14	b
15	b
16	a
17	d
18	c
19	a
20	b

Section Two: Short response

40% (40 Marks)

Question 21

(2 marks)

Calculate the time a boat travelling at an average speed of 12 km/h would take to sail directly from the jetty at Austins Ferry Bay (GR 209634) to the jetty at the public toilets at Bilton Bay (GR 211624). Show your calculations and answer in minutes and seconds.

Description	Marks
Shows calculations to determine the answer and provides the correct answer in minutes and seconds.	2
Shows calculations however fails to provide the correct answer or provides the correct answer, but not in minutes and seconds.	1
Total	2

Marker information:

Answer and calculation
The correct answer, based on a distance of 1km, (4cm), is 5 minutes and 0 seconds.
Distance (1km) divided by speed (12 km/h) = 0.083 hours.
 $0.083 \times 60 = 5$ minutes.
Answer, in minutes and seconds, is 5 minutes and 0 seconds.
Accept a distance calculation of 0.9 km to 1.1 km, which translates to a range of 4 minutes and 30 seconds to 5 minutes and 30 seconds.

Question 22

(2 marks)

Outline **one** site feature and **one** situation feature of the reservoir located at GR 219679.

Description	Marks
Outlines one site feature.	1
Outlines one situation feature.	1
Total	2

Marker information:

Possible site features include:

- moderately sloping land in a SW direction
- height ranges >80m asl to <100m asl.
- cleared land surrounded by areas of medium forest.

Possible situation features include:

- $42^{\circ}44'S\ 147^{\circ}16'E$ (Also accept $42^{\circ}45'S\ 147^{\circ}16'E$)
- approximately 150m - 200m west of a Power transmission line.
- approximately 250m - 300m east of the Jordan River.

Note: need to provide both distance and direction for 1 mark.

Accept other relevant answers.

Question 23**(3 marks)**

Locate by grid reference and describe **one** land use change that has occurred between 1986 and 2019 in the area situated between eastings 21 and 23, and northings 63 and 65.

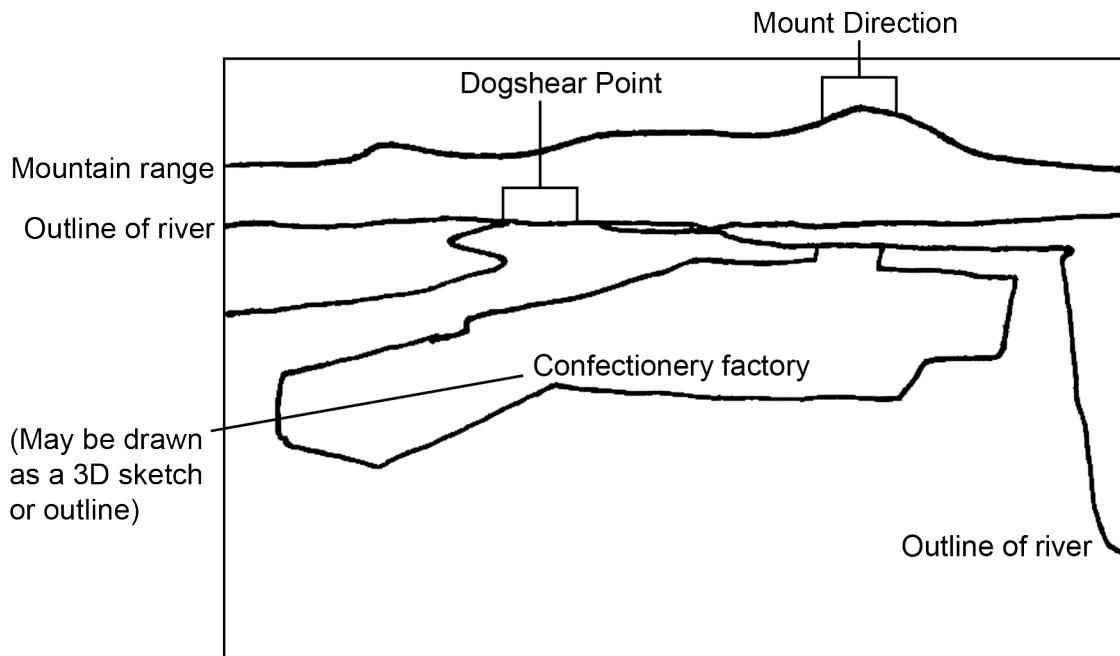
Description	Marks
Provides a grid reference of where the land use change has occurred within the area specified in the question.	1
Describes a land use in 1986 at the grid reference given within the area specified in the question.	1
Describes a land use change that has occurred by 2019 at the grid reference given within the area specified in the question.	1
Total	3
Marker information: GR 221634 - In 1986 accept cleared or vacant land; in 2019 accept residential, built-up, urban. GR 225634 - In 1986 accept cleared or vacant land; in 2019 accept residential, built-up, urban. GR 218646 - In 1986 accept forest/medium forest; in 2019 accept residential, built-up, urban. Accept other relevant answers.	

Question 24

(5 marks)

In the frame below, draw an annotated sketch of the oblique photograph and label the following features on your sketch.

- Mountain range
- Outline of the river
- Mount Direction
- Dogshear Point
- Confectionery factory



Description	Marks
Locates and labels five features on the sketch.	5
Locates and labels four features on the sketch.	4
Locates and labels three features on the sketch.	3
Locates and labels two features on the sketch.	2
Locates and labels one feature on the sketch.	1
Total	5

Question 25

(2 marks)

Define the term 'anthropogenic biome'.

Description	Marks
Defines the term anthropogenic biome, including reference to ecosystems and sustained direct human interactions.	2
Defines the term anthropogenic biome, including reference to ecosystems or sustained direct human interactions.	1
Total	2
Answers could include:	
Anthropogenic biomes are biomes that are the result of sustained direct human interactions with ecosystems.	

Refer to **Source 6**: The loss of biodiversity 1800 to 2100 to answer Question 26.

Question 26

(3 marks)

With specific reference to **Source 6**, explain how land cover change contributes to biodiversity loss.

Description	Marks
Explains how land cover change contributes to biodiversity loss with specific data from Source 6.	3
Describes how land cover change contributes to biodiversity loss with data from Source 6.	2
States what land cover change is and/or generally relates this to biodiversity loss with no data from Source 6.	1
Total	3
Answers could include:	
Explanation should include reference to specific data, e.g.	
<ul style="list-style-type: none"> as land area converted to human use has increased from 7.6% in 1800 to 16.9% in 1900, the loss of species in ecosystems rose from -1.8% to -4.9%. 	
Accept other relevant examples from Source 6 to support answer.	

Question 27

(4 marks)

- (a) Describe the impact of world population growth on the rate of biodiversity loss. (2 marks)

Description	Marks
Describes the impact of world population growth on the rate of biodiversity loss.	2
States an impact of world population growth on the rate of biodiversity loss.	1
Total	2
Marker information:	
Rate refers to change over time at varying speeds.	

- (b) Describe the impact of advances in technology on the extent of land cover change. (2 marks)

Description	Marks
Describes the impact of advances in technology on the extent of land cover change.	2
States an impact of advances in technology on the extent of land cover change.	1
Total	2
Marker information:	
Extent refers to the size of an area of land cover change.	

Question 28

(3 marks)

Explain **one** indigenous peoples' land management practice and its impact on land cover over time.

Description	Marks
Explains (cause and effect) one indigenous land management practice and its impact on land cover over time.	3
Describes one indigenous land management practice and its impact on land cover over time.	2
States one indigenous land management practice or its impact on land cover over time.	1
Total	3
Marker information:	
<p>A good answer will show how land cover has been changed over time. e.g., 'Firestick farming' was a land management practice used by Aboriginal peoples where areas of land were regularly burned in a coordinated way. The use of low intensity burns favoured certain species of plants, such as smaller undergrowth varieties, leading to a less dense and more open vegetation cover. In addition, larger species, such as eucalypts, thrived and spread into areas more suitable to rainforest. As areas were burnt at different times and were at different stages of regeneration, the practice created patchy 'mosaic' patterns of landcover.</p>	

Question 29

(4 marks)

With specific reference to **Source 8**, describe **two** changes that have occurred, or are predicted to occur, in the world's urban and rural populations between 1950, 2000 and/or 2050.

Description	Marks
For each change (2 x 2 marks)	
Describes a change/pattern between 1950, 2000, and/or 2050 and uses a specific example from Source 8.	2
States a pattern in 1950, 2000, and/or 2050.	1
Total	4
Marker information: Candidates may refer to countries, regions or continents. Answers could include: <ul style="list-style-type: none">• Brazil had a majority rural population in 1950, however by 2000 this had changed to majority urban.• In 1950 100% of Africa had a majority rural population, however it is forecast that by 2050 most African countries will be majority urban population. Accept other relevant answers.	

Question 30

(6 marks)

Explain **one** example of economic interdependence and **one** example of environmental interdependence between urban and rural places.

Description	Marks
For one economic example	
Explains the economic interdependence of urban and rural places. The example given clearly demonstrates an understanding that the term interdependence is two-way.	3
Describes the economic interdependence of urban and rural places. The example given implies an understanding that the term interdependence is two-way.	2
States the economic interdependence of urban and rural places. The example given fails to demonstrate an understanding that the term interdependence is two-way.	1
Subtotal	3
For one environmental example	
Explains the environmental interdependence of urban and rural places. The example given clearly demonstrates an understanding that the term interdependence is two-way.	3
Describes the environmental interdependence of urban and rural places. The example given implies an understanding that the term interdependence is two-way.	2
States the environmental interdependence of urban and rural places. The example given fails to demonstrate an understanding that the term interdependence is two-way.	1
Subtotal	3
Total	6
Marker information:	
<p>Rural urban interdependence is the interaction between these places. It is the two-way exchange of people (labour), resources, capital and/or information.</p> <p>Economic interdependence:</p> <ul style="list-style-type: none"> • Rural places generally produce primary resources through mining and agriculture activities, typically requiring labour and capital inputs from urban places, while urban places receive these primary resources to process and redistribute into rural places. • Urban places generate large revenues through tax which are then redistributed into rural places to facilitate economic development. Rural economic activities return royalties and taxes to urban places. <p>Environmental interdependence:</p> <ul style="list-style-type: none"> • Rural places often contain significant environmental features such as National Parks which provide a recreational function for urban populations. Urban places often send waste materials to rural places for disposal. • Urban places produce large quantities of waste which flows to rural areas, while rural areas contain large places of biomass which provides ecosystem services to urban populations. 	
Accept other relevant answers.	

Question 31

(6 marks)

From the list below, explain how **two** of these challenges affect Australian metropolitan or regional centres.

- Housing
- Economic restructuring
- Employment
- Transportation
- Congestion
- Environmental degradation
- Waste management
- Personal safety
- Land abandonment
- Urban sprawl
- Socio-spatial inequality
- Social inclusion and exclusion
- Changing demographics

Description	Marks
For each challenge (2 x 3 marks)	
Explains how the challenge affects Australian metropolitan or regional centres. Clearly demonstrates cause and effect or a clear relationship between the challenge and its effect on these places. Uses appropriate examples.	3
Describes how the challenge affects Australian metropolitan or regional centres. Demonstrates a clear relationship between the challenge and its effect on these places. May use some examples.	2
States how the challenge affects Australian metropolitan or regional centres. May attempt to demonstrate a relationship between the challenge and its effect. Limited or no reference is made to examples.	1
Total	6
Marker information:	
Only accept the challenges listed in the question.	

Section Three: Extended response**40% (40 Marks)****Question 32****(20 marks)**

- (a) Describe **one** natural cause and **one** anthropogenic cause of global climate change **or** declining biodiversity.
- (8 marks)

Description	Marks
For each of two causes (2 x 4 marks)	
Describes in detail a cause and uses accurate information to clearly demonstrate how the cause brings about either climate change or loss of biodiversity.	4
Presents a wide range of appropriate supporting evidence and examples to strengthen the description. Applies accurate and relevant geographical terminology and concepts to develop a cohesive and concise response.	
Describes a cause and uses relatively accurate information to demonstrate how the cause brings about either climate change or loss of biodiversity.	3
Uses a range of appropriate and supporting evidence and examples to develop and strengthen the description. Applies relevant geographical terminology and concepts to develop a cohesive response.	
Identifies a cause and uses some generalised information to indicate how the cause brings about either climate change or loss of biodiversity.	2
Uses limited evidence and examples to support statements and generalisations. Limited use of geographical terminology and concepts.	
Provides a generalised statement about a cause. Limited or no information is provided on how the cause brings about either climate change or loss of biodiversity.	1
Limited or no use of geographical terminology and concepts, in a largely unstructured response.	
Total	8
Marker information:	
Responses should focus on how the identified cause leads to climate change or biodiversity loss.	
Answers could include:	
Natural causes of climate change:	
<ul style="list-style-type: none"> • solar variations • changes to earth's orbit • movement of tectonic plates • volcanic eruptions. 	
Anthropogenic causes of climate change:	
<ul style="list-style-type: none"> • agriculture • forestry • urban development (transportation, energy consumption, industrial activities). 	
Natural causes of biodiversity loss:	
<ul style="list-style-type: none"> • changes to climate through geological time • flood basalt events • volcanic eruptions • asteroid impacts. 	

Question 32 (continued)

Anthropogenic causes of biodiversity loss:

- land cover change - habitat fragmentation
- pollution
- enhanced climate change
- invasive species
- over exploitation.

Accept other relevant answers.

- (b) Assess **two** current or proposed strategies implemented to mitigate the adverse effects of **either** global climate change **or** loss of biodiversity. (12 marks)

Description	Marks
For each of two strategies (2 x 6 marks)	
Assesses a current or proposed strategy. Accurately relates the strategy to mitigating the adverse effects of global climate change or biodiversity loss.	5–6
Presents a wide range of appropriate supporting evidence and examples to develop and strengthen the assessment. Applies accurate and relevant geographical terminology and concepts to develop a cohesive and concise response.	3–4
Explains a current or proposed strategy. Relates the strategy to mitigating the adverse effects of global climate change or biodiversity loss.	1–2
Uses some supporting evidence and examples to develop and strengthen the explanation. Applies relevant geographical terminology and concepts to develop a cohesive response.	1–2
States some general information about a strategy. Provides little evidence of the relationship between the strategy and mitigating the adverse effects of global climate change or biodiversity loss.	1–2
Limited evidence is used to support statements and generalisations. Limited or no use of geographical terminology and concepts in a largely unstructured response.	1–2
Total	12
Answers could include:	
Climate change – strategies that reduce the impacts of climate change <ul style="list-style-type: none"> • carbon sequestration strategies • renewable energy strategies. Loss of biodiversity – strategies that reduce the impacts of biodiversity loss <ul style="list-style-type: none"> • urban infill/growth boundaries • land conservation and preservation strategies. 	
Accept other relevant answers.	

Question 33

(20 marks)

- (a) Describe **one** major type of evidence through geological time and **one** major type of evidence in recent human history for climate change **or** loss of biodiversity. (8 marks)

Description	Marks
For each of two types of evidence (2 x 4 marks)	
Describes in detail a major type of evidence and uses accurate information to clearly demonstrate how the evidence provides knowledge about either climate change or loss of biodiversity.	4
Presents a wide range of appropriate supporting evidence and examples to strengthen the description. Applies accurate and relevant geographical terminology and concepts to develop a cohesive and concise response.	
Describes a major type of evidence and uses relatively accurate information to demonstrate how the evidence provides knowledge about either climate change or loss of biodiversity.	3
Uses a range of appropriate and supporting evidence and examples to develop and strengthen the description. Applies relevant geographical terminology and concepts to develop a cohesive response.	
Identifies a major type of evidence and uses some generalised information to indicate how the evidence provides knowledge about either climate change or loss of biodiversity.	2
Uses limited evidence and examples to support statements and generalisations. Limited use of geographical terminology and concepts.	
Provides a generalised statement about a major type of evidence. Limited or no information is provided on how the evidence provides knowledge about either climate change or loss of biodiversity.	1
Limited or no use of geographical terminology and concepts, in a largely unstructured response.	
Total	8
Answers could include:	
Climate change evidence – through geological time	
<ul style="list-style-type: none"> • proxy data extracted from ice core modelling • proxy data from sedimentation in marine environments • records of fossilised pollen distribution. 	
Climate change evidence – recent human history	
<ul style="list-style-type: none"> • records of average land surface temperature • records of average ocean surface temperature • records of changes to mass of the cryosphere. 	
Loss of biodiversity evidence – through geological time	
<ul style="list-style-type: none"> • records of rock layers and fossils from extinction events • records of marine fossils • asteroid impacts. 	
Loss of biodiversity evidence – recent human history	
<ul style="list-style-type: none"> • records of the impact of industrial agriculture • data for ecosystem and genetic diversity • sampling data of species richness. 	
Accept other relevant answers.	

- (b) Assess a program designed to address the impacts of land cover change on local and regional environments, giving consideration to **two** of the following aspects of sustainability:
- environmental
 - economic
 - social.
- (12 marks)

Description	Marks
For each aspect of sustainability (2 x 6 marks)	
Assesses a program designed to address the impacts of land cover change on local and regional environments, accurately relating the outcomes of the program to the chosen aspect of sustainability. Presents a wide range of appropriate supporting evidence and examples to develop and strengthen the assessment. Applies accurate and relevant geographical terminology and concepts to develop a cohesive and concise response.	5–6
Explains a program designed to address the impacts of land cover change on local and regional environments, relating the outcomes of the program to the chosen aspect of sustainability. Uses some supporting evidence and examples to develop and strengthen the explanation. Applies relevant geographical terminology and concepts to develop a cohesive response.	3–4
States some general information about a program designed to address the impacts of land cover change on local and regional environments. Provides little or no information on how the outcomes of the program relates to a chosen aspect of sustainability. Limited evidence is used to support statements and generalisations. Limited or no use of geographical terminology and concepts in a largely unstructured response.	1–2
Total	12
Answers could include: Programs selected should be specific programs that have a primary focus on addressing the impacts of land cover change. Specific program could include: <ul style="list-style-type: none"> • agroforestry • forest management programs – silviculture • wetland restoration • pest control. Impacts that may be addressed include: <ul style="list-style-type: none"> • biodiversity loss • soil salinity • water quality • pollutant runoff • flood mitigation • displacing native species and altering habitat. 	
Accept other relevant answers.	

Question 34

(20 marks)

- (a) Describe **two** demographic characteristics of **either** metropolitan Perth **or** a regional urban centre in Western Australia. (8 marks)

Description	Marks
For each of two demographic characteristics (2 x 4 marks)	
Describes in detail the patterns exhibited by the characteristic in metropolitan Perth or a regional urban centre in Western Australia.	4
Presents a wide range of appropriate supporting evidence and examples to strengthen the description. Applies accurate and relevant geographical terminology and concepts to develop a cohesive and concise response.	3
Describes the patterns exhibited by the characteristic in metropolitan Perth or a regional urban centre in Western Australia.	2
Uses a range of appropriate supporting evidence and examples to develop and strengthen the description. Applies relevant geographical terminology and concepts to develop a cohesive response.	1
Identifies the patterns exhibited by the characteristic in metropolitan Perth or a regional urban centre in Western Australia.	
Uses limited evidence and examples to support statements and generalisations. Limited use of geographical terminology and concepts.	
Provides a generalised statement about the characteristic in metropolitan Perth or a regional urban centre in Western Australia.	
Limited or no use of geographical terminology and concepts, in a largely unstructured response. Information might be in dot point form.	
Total	8
Marker information:	
Characteristics should include a description of spatial variations in demographic patterns including the relative location.	
Relative location refers to CBD or other functional zone or area of significance, suburbs, precincts, and areal extent.	
Characteristics include highest/lowest and/or max/min (i.e. range) such as:	
<ul style="list-style-type: none"> • age – Inner suburbs typically have an older population compared to newer suburbs in outer areas e.g. City of South Perth has a median age of 37 compared to City of Wanneroo has a median age of 33. City of Perth has a lower rate (5.2%) of 0–14-year old's compared to City of Cockburn which in comparison has a rate 20% • gender – inner suburban areas often have a higher ratio of females to males compared to outer suburban areas, e.g. Como (53.5%) and Attadale (53.1%) have a higher ratio of females compared to the City of Armadale (50.3%). 	
Accept other relevant answers.	

- (b) Select **one** significant challenge facing a megacity and discuss how **two** planning strategies are being, or have been, used to address the challenge. (12 marks)

Description	Marks
For each of two strategies (2 x 6 marks)	
Discusses the positive and/or negative factors which pertain to the planning strategy. Accurately relates how the strategy aims to address the challenge.	5–6
Presents a wide range of appropriate supporting evidence and examples to develop and strengthen the discussion. Applies accurate and relevant geographical terminology and concepts to develop a cohesive and concise response.	3–4
Explains how the program aims to address the challenge.	
Uses some supporting evidence and examples to develop and strengthen the explanation. Applies relevant geographical terminology and concepts to develop a cohesive response.	1–2
States some general information pertaining to the planning strategy. Provides little evidence of the relationship between the strategy and the challenge.	
Limited evidence is used to support statements and generalisations. Limited or no use of geographical terminology and concepts in a largely unstructured response.	
Total	12
Marker information: Answers based on planning strategies that have been proposed but not yet implemented may be accepted. A good answer should include both positives and negatives in the discussion; however, a good answer that does not address both is still able to be awarded full marks if this is an accurate reflection of the selected planning strategy. Only accept the following challenges: Housing, economic restructuring, employment, transportation congestion, environmental degradation, waste management, personal safety, land abandonment, urban sprawl, socio-spatial inequality, social inclusion and exclusion, changing demographics.	

Question 35

(20 marks)

- (a) Describe **two** demographic characteristics of a megacity you have studied. (8 marks)

Description	Marks
For each of two characteristics (2 x 4 marks)	
Describes in detail the patterns exhibited by the characteristic in a megacity.	4
Presents a wide range of appropriate supporting evidence and examples to strengthen the description. Applies accurate and relevant geographical terminology and concepts to develop a cohesive and concise response.	
Describes the patterns exhibited by the characteristic in a megacity.	3
Uses a range of appropriate supporting evidence and examples to develop and strengthen the description. Applies relevant geographical terminology and concepts to develop a cohesive response.	
Identifies the patterns exhibited by the characteristic in a megacity.	2
Uses limited evidence and examples to support statements and generalisations. Limited use of geographical terminology and concepts.	
Provides a generalised statement about the characteristic in a megacity.	1
Limited or no use of geographical terminology and concepts, in a largely unstructured response. Information might be in dot point form.	
Total	8
Marker information:	
Characteristics should include a description of spatial variations in demographic patterns including the relative location.	
Relative location refers to CBD or other functional zone or area of significance, suburbs, precincts and areal extent.	
Characteristics include qualities such as:	
<ul style="list-style-type: none"> • age – Manhattan borough has a median age of 38, while the Bronx has a median age of 35. Manhattan borough has a lower rate (9%) of 0–9-year-olds compared to the Bronx borough 14%. • Income – Manhattan borough has a higher income US\$79k per capita compared to outer boroughs such as Queens which has a US\$34k per capita income. • Race/ ethnicity – Staten Island borough has a 60% white population compared to the Bronx (9%). 	
Accept other relevant answers.	

- (b) Select **one** significant challenge facing **either** metropolitan Perth **or** a regional urban centre in Western Australia and discuss how **two** planning strategies are being, or have been, used to address the challenge. (12 marks)

Description	Marks
For each of two strategies (2 x 6 marks)	
Discusses the positive and/or negative factors which pertain to the planning strategy. Accurately relates how the strategy aims to address the challenge.	5–6
Presents a wide range of appropriate supporting evidence and examples to develop and strengthen the discussion. Applies accurate and relevant geographical terminology and concepts to develop a cohesive and concise response.	3–4
Explains how the program aims to address the challenge.	1–2
Uses some supporting evidence and examples to develop and strengthen the explanation. Applies relevant geographical terminology and concepts to develop a cohesive response.	1–2
States some general information pertaining to the planning strategy. Provides little evidence of the relationship between the strategy and the challenge.	1–2
Limited evidence is used to support statements and generalisations. Limited or no use of geographical terminology and concepts in a largely unstructured response.	1–2
Total	12
Marker information: Answers based on strategies that have been proposed but not yet implemented may be accepted. A good answer should include both positives and negatives in the discussion; however, a good answer that does not address both is still able to be awarded full marks if this is an accurate reflection of the selected planning strategy. Only accept the following challenges: Housing, economic restructuring, employment, transportation congestion, environmental degradation, waste management, personal safety, land abandonment, urban sprawl, socio-spatial inequality, social inclusion and exclusion, changing demographics.	

ACKNOWLEDGEMENTS

- Question 25** ‘Answers could include:’ adapted from: Ellis, E. C., & Ramankutty, N. (2008, October). Putting People in the Map: Anthropogenic Biomes of the World. *Frontiers in Ecology and the Environment*, 6(8), p. 439. Retrieved July, 2022, from <https://esajournals.onlinelibrary.wiley.com/doi/epdf/10.1890/070062>
- Question 26** Data from: Newbold, T., Hudson, L. N., Purvis, A. et al. (2015). Global Effects of Land Use on Local Terrestrial Biodiversity. *Nature*, 520(7545), pp. 45–50. Retrieved May, 2022, from <https://www.unep-wcmc.org/news/biodiversity-damage-mapped-by-global-land-use-study>
- Question 28** Example information from: Australian Academy of Science. (n.d.). *Bushfires 2: Managing Landscapes* (T. Vigilante & R. Thornton, Reviewers). Retrieved August, 2022, from <https://www.science.org.au/curious/earth-environment/bushfires-managing-landscapes>
- Question 34(a)** Median ages data source: Australian Bureau of Statistics. (2016). *2016 Census Community Profiles* (Armadale (C) & Wanneroo (C)). Retrieved August, 2022, <https://www.abs.gov.au/census/find-census-data/search-by-area>
Used under Creative Commons Attribution 4.0 International licence.
Percentages of 0–14 year olds and females based on: Australian Bureau of Statistics. (2016). *2016 Census Community Profiles* (Armadale (C), Attadale, Cockburn (C), Como (WA) & Perth (C)). Retrieved August, 2022, <https://www.abs.gov.au/census/find-census-data/search-by-area>
Used under Creative Commons Attribution 4.0 International licence.
- Question 35(a)** Data from: U.S. Census Bureau. (2020). *American Community Survey 5-year Estimates* (Bronx, Manhattan, Queens & Staten Island Boroughs). Retrieved August, 2022, from <https://censusreporter.org/>

Copyright

© School Curriculum and Standards Authority, 2022

This document – apart from any third party copyright material contained in it – may be freely copied, or communicated on an intranet, for non-commercial purposes in educational institutions, provided that it is not changed and that the School Curriculum and Standards Authority (the Authority) is acknowledged as the copyright owner, and that the Authority's moral rights are not infringed.

Copying or communication for any other purpose can be done only within the terms of the *Copyright Act 1968* or with prior written permission of the Authority. Copying or communication of any third party copyright material can be done only within the terms of the *Copyright Act 1968* or with permission of the copyright owners.

Any content in this document that has been derived from the Australian Curriculum may be used under the terms of the Creative Commons [Attribution 4.0 International \(CC BY\)](#) licence.

An *Acknowledgements variation* document is available on the Authority website.