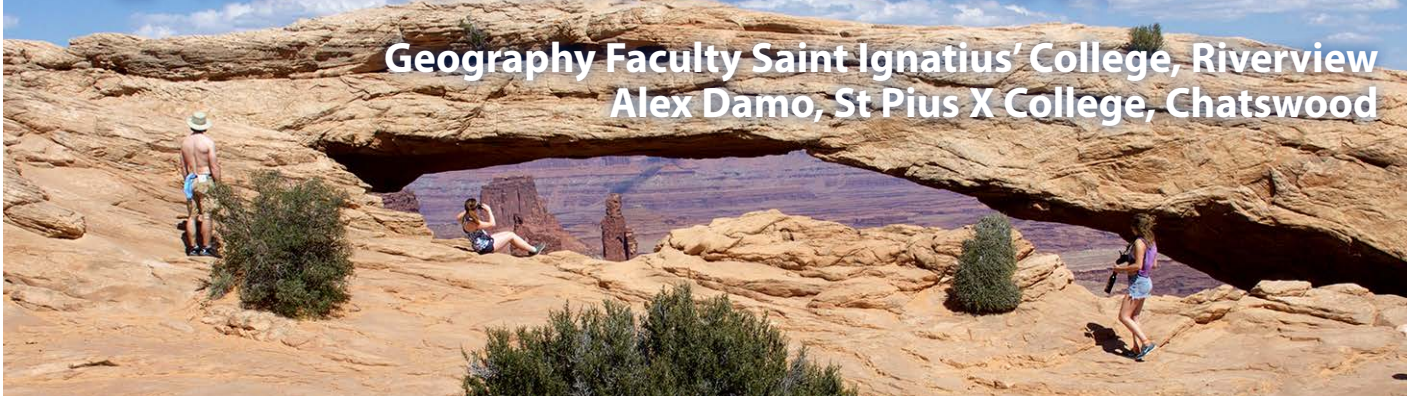


ASSESSMENT: ELECTIVE GEOGRAPHY

Interactions and Patterns along a Transcontinental Transect

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Alex Damo, St Pius X College, Chatswood



Canyonlands National Park Photo L Chaffer

Outcomes

- GEE5-1** explains the diverse features and characteristics of a range of places, environments and activities
- GEE5-2** explains geographical processes and influences that form and transform places and environments
- GEE5-3** analyses patterns associated with natural phenomena and human activity at a range of scales
- GEE5-4** assesses the interactions and connections between people, places and environments that impact on sustainability
- GEE5-5** accounts for contemporary geographical issues and events that impact on places and environments
- GEE5-8** acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry
- GEE5-9** communicates geographical information to a range of audiences using a variety of strategies and geographical tools

Key Concepts

Place, space, environment, interconnection, scale, and change

Content

Students investigate:

- Investigate broad continental patterns, changes in physical and human characteristics along the chosen transect
- Students investigate places and events of significance
- Investigate at least ONE geographical issue relevant to the study area

Tools and Skills

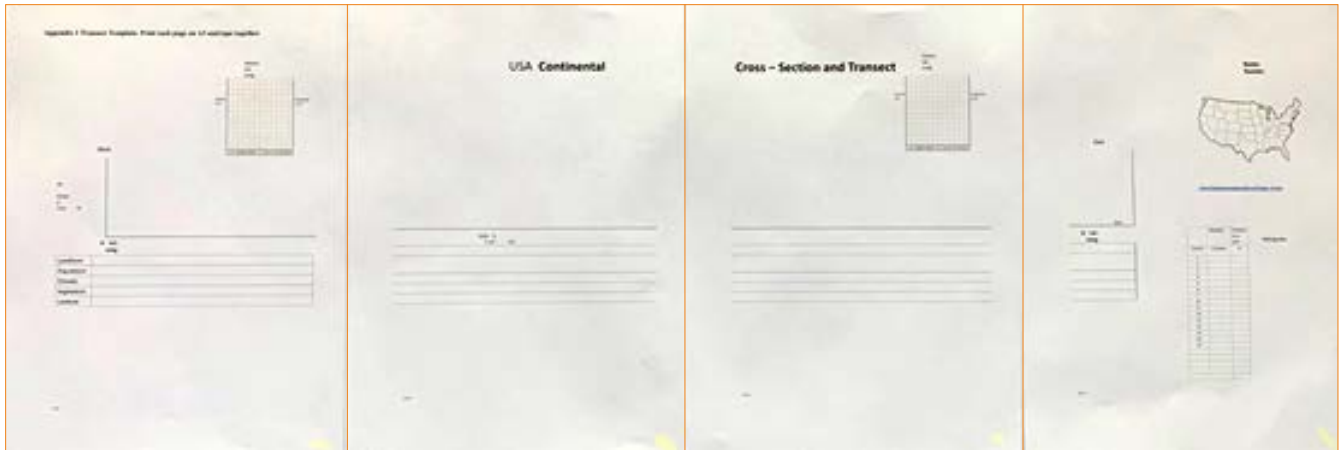
Tools: Maps, statistics and graphs, photos, spatial technologies

Skills: Acquiring geographical information, processing geographical information, communicating geographical information

Task A. Creating a Cross Section

(10 marks)

Use the template in Appendix 1 pdf. Print the four-page template on A3 and tape together.

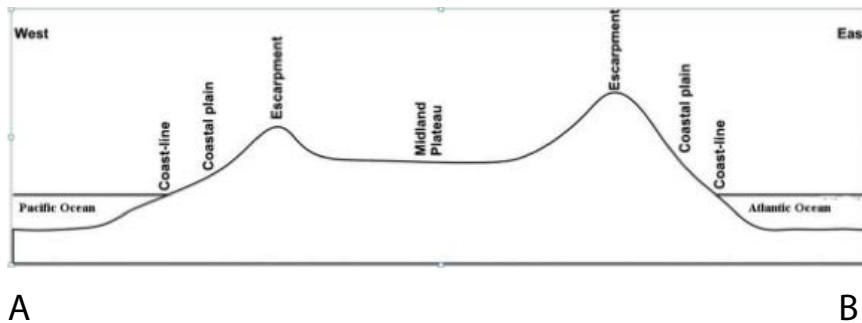


Place the 4 pages side by side, trim to match sections and tape

Cross Section

Cross sections are line graphs that show a sideways view of a landscape

Use the example below to assist you.



Select a straight-line path that crosses the USA from West to East.

Construct a cross section that illustrates the variations in the altitude of the land along the chosen path across the USA.

1. The start of your cross section is labelled Point A on the west coast. End your cross section is Point B on the east coast.
2. To construct the cross section, choose a minimum of 15 points distributed between Point A and B.

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For each point, use Google Earth to identify:

- latitude and longitude for both these locations
- altitude and
- distance in kilometres from the start

Record this information in the table provided on the template and use it to construct your cross section.

3. Use Google Earth to calculate the entire length in kilometres of your cross section and write this next to point B on the cross section

4. Calculate the following, as your cross section must have these stated:

- Vertical scale stated as a ratio. Example 1:10000 and in the form 1cm represents 100 metres
- Horizontal scale stated as a ratio. Example 1:100000, and in the form 1cm represents 1000 metres.
- Vertical exaggeration is calculated by horizontal scale in metres divided by vertical scale in metres.

Example: Horizontal Scale = 1000 metres

Vertical Scale = 100 metres

VE = 10 times

5. Along your cross section, label areas or sites of geographical interest such as state boundaries, highways, rivers, lakes, mountain ranges or settlements.

6. On your template is a map of the United States. On this map draw the path of your cross section with Point A and B clearly labelled. Also label the states through which your cross section passes.



Task B. Creating Climate Graphs and a Transect

(10 marks)

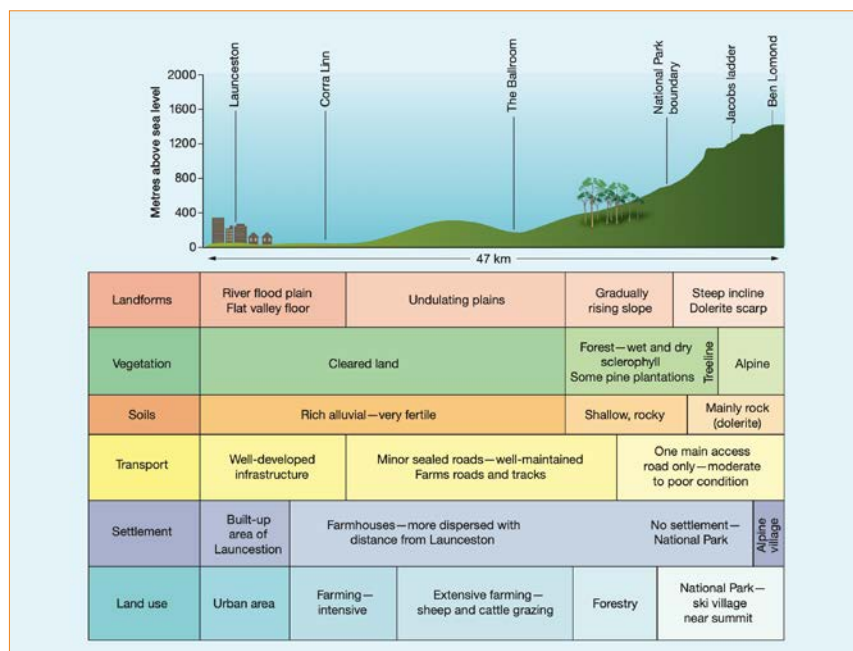
Climate Graphs

Create two climate graphs using the following website for data: <https://www.usclimatedata.com/>

Transect

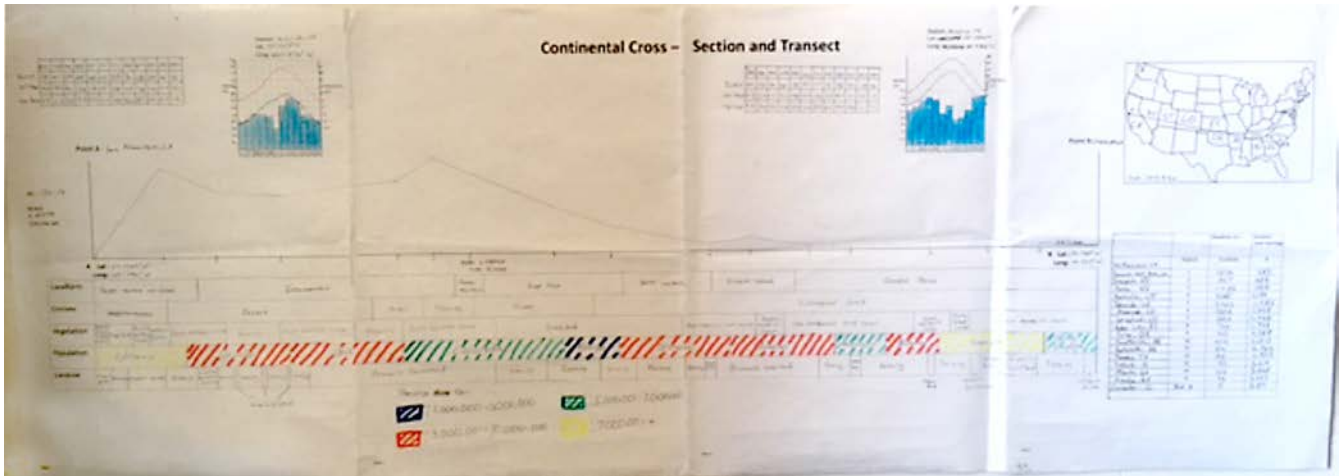
A line or path across the earth's surface along which observations are made or measurements taken.

- Undertake research to identify the landforms, climate, vegetation, land use, and population along the length of the cross section.
- Complete the transects underneath the cross section, use appropriate colours to illustrate the distribution of:
 - Landforms – create a transect showing the different landform regions. Landform regions map <https://www.tes.com/lessons/bZOoHR-83wzyWg/land-forms-of-the-us>
 - Climate - use the map to create a transect showing the different climatic zones. Climate regions map <https://5thworldadventures.blogspot.com/2018/07/us-temperate-climate-zone-map.html>
 - Vegetation - use the map to create a transect showing the different vegetation zones. North American vegetation zones <http://www.cec.org/tools-and-resources/map-files/north-american-forests-2011>
 - Land Use – use the map to create a transect showing the different land use zones. USA landuse map <https://www.bloomberg.com/graphics/2018-us-land-use/>
 - Population – break it up by State. Create a key and shade each state by the population include the capital cities population. Identify indigenous American cultures.
 - USA population distribution map by state https://commons.wikimedia.org/wiki/File:USA_2000_population_density.jpg
 - Identify indigenous American cultures across the transect <https://www.britannica.com/topic/Pawnee-people> Slide 4.



Sample transect: Australian Geography Teachers Association: Geography Skills Unlocked page 133

Example of completed Tasks 1 & 2



Task C. Tourism Video Group Response

(10 marks)

You are to create a 4 to 5 minute tourism video showing aspects of climate, leisure activities and landforms across the transect line. You will be marked on creativity, final product quality, contribution to and engagement in the group task.

1. Compare the climates shown on the climate graphs.
 - Compare: Show how things are similar or different.
2. Explain the how the landforms and climate influence land use and population.
 - Explain: relate cause and effect; make the relationships between things evident.
3. Demonstrate examples of leisure activities that tourists would do along the transect
 - Demonstrate: Show by example



Highline New York City, Golden Gate Bridge San Francisco, Arch made of Elks horns shed each year in Wyoming, The Grand Tetons mountain range. Photos L Chaffer

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Task A. Creating a Cross Section (10 marks)

<p>Excellent 9–10</p>	<p>The cross section provides a very high level of identification, organisation and synthesis of geographical information. Application of all or most of the following tools is excellent with minimal error and a very high degree of accuracy:</p> <ul style="list-style-type: none"> 15 or more points listed in the table on the template Cross section points plotted, and connected with thin flowing line Vertical Exaggeration Vertical Scale Horizontal scale Geographic points of interest labelled on the cross section including the start and end locations The entire length of cross section is indicated near Point B Cross section drawn across the map of USA with Points A and B labelled.
<p>High 7–8</p>	<p>The cross section provides thorough identification, organisation and synthesis of geographical information. Application of all or most of the following tools is high:</p> <ul style="list-style-type: none"> 15 or more points listed in the table on the template Cross section points plotted, and connected with thin flowing line Vertical Exaggeration Vertical Scale Horizontal scale Geographic points of interest labelled on the cross section including the start and end locations The entire length of cross section is indicated near Point B Cross section drawn across the map of USA with Points A and B labelled.
<p>Sound 5–6</p>	<p>The cross section provides sound identification, organisation and synthesis of geographical information. Application of all or most of the following tools is sound:</p> <ul style="list-style-type: none"> 15 or more points listed in the table on the template Cross section points plotted, and connected with thin flowing line Vertical Exaggeration Vertical Scale Horizontal scale Geographic points of interest labelled on the cross section including the start and end locations The entire length of cross section is indicated near Point B Cross section drawn across the map of USA with Points A and B labelled.
<p>Developing 3–4</p>	<p>The cross section provides limited identification, organisation and synthesis of geographical information. Application of all or most of the following tools is limited:</p> <ul style="list-style-type: none"> Some points listed in the table on the template Cross section points plotted, and connected with thin flowing line Vertical Exaggeration Vertical Scale Horizontal scale Geographic points of interest labelled on the cross section including the start and end locations The entire length of cross section is indicated near Point B Cross section drawn across the map of USA with Points A and B labelled.
<p>Elementary 0–2</p>	<p>The cross section provides elementary identification, organisation and synthesis. Application of all or most of the following tools is elementary:</p> <ul style="list-style-type: none"> Some points listed in the table on the template Cross section points plotted, and connected with thin flowing line Vertical Exaggeration Vertical Scale Horizontal scale Geographic points of interest labelled on the cross section including the start and end locations The entire length of cross section is indicated near Point B Cross section drawn across the map of USA with Points A and B labelled.

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Task B. Creating a Transect (10 marks)

Excellent 9–10	Identification and description of climate vegetation, landform land use and population along the transect is excellent. Application of all or most of the following is excellent: Research on landforms, climate, vegetation, land use Completed transects underneath the cross section for landforms, land use, climate, vegetation, population Bibliography
High 7–8	Identification and description of climate vegetation, landform land use and population along the transect is thorough. Application of all or most of the following tools is high: Research on landforms, climate, vegetation, land use Completed transects underneath the cross section for landforms, land use, climate, vegetation, population Bibliography
Sound 5–6	Identification and description of climate vegetation, landform land use and population along the transect is adequate. Application of all or most of the following tools is sound: Research on landforms, climate, vegetation, land use Completed transect underneath the cross section for landforms, land use, climate, vegetation, population Bibliography
Developing 3–4	Identification and description of climate vegetation, landform land use and population along the transect is limited. Application of all or most of the following tools is developing: Research landforms, climate, vegetation, land use Completed transects underneath the cross section for landforms, land use, climate, vegetation, population Bibliography.
Elementary 0–2	Identification and description of climate vegetation, landform land population use along the transect is elementary. Application of all or most of the following tools is elementary: Research on landforms, climate, vegetation, land use Completed transects underneath the cross section for landforms, land use, climate, vegetation, population Bibliography.



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Task C. Tourism Video Group Response (10 marks)

<p>Excellent 9–10</p>	<p>Clearly identifies and describes a range of similarities and differences in climate between the TWO cities/towns shown in the climate graphs. Uses a range of statistical data showing the temperature and precipitation of the TWO cities/towns. Clearly describes differences in leisure activities across the transect. • Gives detailed reasons as to why differences occur. Provides a range of specific examples. Clearly explains the relationship between landforms, population and land use • Gives detailed reasons as to why particular relationships exist across the transect. Provides a range of specific examples Always demonstrates active engagement in the group task to contribute effectively and positively to the outcome</p>
<p>High 7–8</p>	<p>Identifies some similarities and differences in climate between the TWO cities/towns shown in the climate graphs. Uses some climatic statistics. Describes differences in leisure activities across the transect. • May give some reasons as to why differences occur. Provides some examples. Explains the relationship between landforms, population and land use . • Gives detailed reasons as to why particular relationships exist across the transect. Provides a range of specific examples. Demonstrates active engagement in the group task to contribute effectively to the outcome</p>
<p>Sound 5–6</p>	<p>Identifies similarities or differences in climate in climate between the TWO cities/towns shown in the climate graphs. Uses some climatic statistics. Outlines some leisure activities across the transect. Describes the landforms, population and land use across the transect. May give some reasons for the relationships or locations of features.</p>
<p>Developing 3–4</p>	<p>Identifies climatic features of the TWO cities/towns. Lists some leisure activities across the transect Outline some aspects of the landforms, population and land use across the transect May give some reasons for the relationships or locations of features. Occasionally engages in the group task to contribute effectively to the outcome</p>
<p>Elementary 0–2</p>	<p>General reference to climate in the USA. General reference to leisure activities General reference to landforms, population and land use across the transect Rarely demonstrates active engagement in the group task to contribute effectively to the outcome</p>



Downtown Las Vegas Photo L Chaffer