Is Sydney’s ‘Central District City’ a liveable and sustainable city?

Sharon McLean
Vice-President GTA NSW and ACT

PART A: PLANNING
INQUIRY–BASED FIELDWORK

Syllabus Links

Topic: Changing Places

Outcomes: A student:

• GE5-2 explains processes and influences that form and transform places and environments
• GE5-3 analyses the effect of interactions and connections between people, places and environments
• GE5-5 assesses management strategies for places and environments for their sustainability
• GE5-7 acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry
• GE5-8 communicates geographical information to a range of audiences using a variety of strategies

Key inquiry questions

• How does urbanisation change environments and places?
• What strategies are used to manage environmental change in urban places to enhance sustainability?

Geographical Concepts: Place, space, environment, interconnection, scale, sustainability, change

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

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

End product: 1. Google Tour Builder Map of Parramatta or Rouse Hill.
  2. Recorded three minute “café conversation.” See assessment task information.
To engage students in the Changing Places topic the following key driving question was proposed: **Is Sydney’s ‘Central District City’ a liveable and sustainable city?**

The starting point for this investigation was the Greater Sydney Commission’s plan for the Greater Sydney Region. The forty-year plan focuses on liveability, sustainability, productivity and sustainability for Greater Sydney to transform the region into a Metropolis of Three Cities:

- The Western Parkland City
- The Central River City and
- The Eastern Harbour City.

Underpinning this plan are five city districts have been created: Western District City, Central District City, Eastern District City, South District and North District.

### Map 1: Metropolis of Three Cities

![Map 1: Metropolis of Three Cities](https://www.greater.sydney/metropolis-of-three-cities/vision-of-metropolis-of-three-cities)

Given the proximity of the Central District City to our school it was decided to focus the driving question on this area, in particular Parramatta and Rouse Hill. Prior to commencing the Changing Places unit teachers in the Geography Faculty explored both Parramatta and Rouse Hill to devise a plan for the fieldwork that would enable students to gather information to answer the driving question: **Is Sydney’s ‘Central District City’ a liveable and sustainable city?**

### Map 2: The Central City District

![Map 2: The Central City District](https://www.greater.sydney/central-city-district-plan/about-plan)

Parramatta Westfield Shopping

Parramatta Square

Source: [https://www.greater.sydney/central-city-district-plan/about-plan](https://www.greater.sydney/central-city-district-plan/about-plan)
Pre-Fieldwork Activities
The following activities to develop understanding of key concepts of liveability and sustainability.

- **How does urbanisation change environments and places?**
  - Use photos of Australian cities from the early 1900’s and the present. Student discuss the differences they see in photos. Why have the changes taken place?
  - Explore Australia’s population growth and the impact of urban growth by using ABS population data for different cities and states to map Australia’s urban areas. [https://www.abs.gov.au/ausstats/abs@.nsf/mf/3218.0](https://www.abs.gov.au/ausstats/abs@.nsf/mf/3218.0)
  - Students make predictions about future growth. How will future growth impact on cities and people who live in them?

- **What makes a city liveable and sustainable?**
  - Use the following sites to investigate features of a liveable and sustainable city.
    - [Ted Talk & Principles for building better cities](https://www.ted.com/talks/peter_calthorpe_7_principles_for_building_better_cities?language=en)
    - [What is the most sustainable city in the world?](https://www.weforum.org/agenda/2016/09/these-are-the-world-s-most-sustainable-cities/)
    - New York Is the First City to Report to the UN on SDGs - CityLab [https://www.citylab.com/amp/article/564953/?click=https://t.co/ZTwmyMxQsd](https://www.citylab.com/amp/article/564953/?click=https://t.co/ZTwmyMxQsd)
    - Small group work: Students create a mind map of criteria for a liveable and sustainable city. Create a gallery walk of the mind maps for students to review.
    - [The Egan Wheel of Liveability](https://www.ihbc.org.uk/recent_papers/docs/Egan%20Review%20Skills%20for%20sustainable%20Communities.pdf page 19).

Key Inquiry Question: Is the “Central District City” a liveable and sustainable city?

- **Use the following site to compare the expected growth in the three cities of the metropolis of Sydney.** [https://www.greater.sydney/portal/metropolis-three-cities/vision-metropolis-three-cities/why-metropolis-of-three-cities](https://www.greater.sydney/portal/metropolis-three-cities/vision-metropolis-three-cities/why-metropolis-of-three-cities)
  - And use the data hub at [https://www.greater.sydney/data-hub-liveability](https://www.greater.sydney/data-hub-liveability)

- **What are the aims of the Greater Sydney Commission’s “Metropolis of Three Cities” plan?**
  - YouTube: Greater Sydney’s Great Cities [https://www.youtube.com/watch?v=Xj1E-F8ID](https://www.youtube.com/watch?v=Xj1E-F8ID)

- **Where is the “Central District City”?**

- **What is the “Central District City” like?**
  - Jigsaw group work – four in each group. Each student is assigned one of the following council areas within the Central District City: The Hills, Parramatta, Blacktown and Cumberland. Use ABS population data and council websites to produces a poster comparing the four council areas. Include indigenous culture, population growth, age groups,
urban projects. Each group produces a poster comparing the four council areas.
https://profile.id.com.au/the-hills

• **What is being done to create a liveable and sustainable Central District City?**

**Fieldwork**

Is Sydney’s Central District City a liveable and sustainable city?

• **Students engage in fieldwork activities to observe and inquire into the Central District City.** Evidence gathered from fieldwork in Parramatta and Rouse Hill will include line drawing of the urban landscape, landuse map of Church Street Parramatta and Rouse Hill Town Centre, liveability and environment surveys and photos. See attached Fieldwork activities handout.

Parramatta Park Gates

Parramatta River Ferry Wharf

Meriton Apartments Parramatta

Curtis Cheng Police Headquarters

Rouse Hill Town Centre

Caddies Lake, Rouse Hill

Photos by Sharon McLean
Post-Fieldwork Activities

1. **Google Tour Builder**
   Students use a Google Tour Builder to create a tour of Parramatta or Rouse Hill including photos showing aspects of livability and sustainability or areas where liability and sustainability need improvement.

2. **“Café Conversation” (Formal Assessment Task)**
   Using the fieldwork information prepare a 3-minute “café conversation” for a radio segment for an upcoming podcast segment on urban places. Working in pairs your focus is on answering the key inquiry question:
   
   **Is Sydney’s Central District City a liveable and sustainable city?**
   
   In your conversation consider the:
   - strengths of the Central District City.
   - challenges of the Central District City.
   - opportunities of the Central District City.

Thank you to the 2018 Year 10 Geography Staff at Saint Ignatius’ College: Rex Cooke (Head of Faculty), Cassandra Crompton, Christina Keighran, Dominique Marturia, Peter Steffan, Michael Webb.

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Parramatta River Cycleway & Ferry Wharf

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Rouse Hill Town Centre

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Images by Sharon McLean
PART B: ASSESSMENT TASK

Outcomes

• explains processes and influences that form and transform places and environments
• analyses the effect of interactions and connections between people, places and environments
• assesses management strategies for places and environments for their sustainability
• acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry
• communicates geographical information to a range of audiences using a variety of strategies

Inquiry Task:
Using the fieldwork information prepare a 3-minute “café conversation” for a podcast segment on urban places. Working in pairs your focus is on answering the key inquiry question:

Is Sydney’s Central District City a liveable and sustainable city?

In your conversation consider the:
– strengths of the Central District City
– challenges of the Central District City
– opportunities of the Central District City.

“Parramatta Square is set to become a visionary, world-class landmark and destination in the heart of the Parramatta CBD. Located across a prime three-hectare city block, the $2.7 billion project will comprise six new buildings and a refurbished Town Hall. The precinct is linked by 6,000sqm of public domain that will serve as an important place to meet, trade, shop, dine, learn, celebrate and connect.”
## Marking Criteria

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
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</table>
| **17-20** | • Shows a detailed understanding of aspects of liveability and sustainability of the Central District City  
• Provides a clear and detailed understanding of the strengths, challenges and opportunities of the Central District City  
• Effectively integrates appropriate and accurate evidence and examples from the fieldwork.  
• Effectively uses appropriate geographical terminology.  
• Both students contribute equally to the conversation  
• Script of conversation is provided |
| **13-16** | • Shows an understanding of aspects of liveability and sustainability of the Central District City  
• Provides a detailed understanding of the strengths, challenges and opportunities of the Central District City  
• Integrates appropriate and accurate evidence and examples from the fieldwork.  
• Uses geographical terminology.  
• Both students may or may not contribute equally to the conversation  
• Script of conversation is provided |
| **9-12** | • Shows a limited understanding of aspects of liveability and sustainability of the Central District City  
• Provides an understanding of some the strengths, challenges and opportunities of the Central District City  
• May refer to examples from the fieldwork.  
• Uses some geographical terminology.  
• Both students may or may not contribute equally to the conversation  
• Script of conversation is provided |
| **1-8** | • Provides general information on some aspects of the Central District City or lists some aspects of the Central District City  
• May refer to some the strengths, challenges and opportunities of the Central District City  
• Uses general terms and phrases to communicate geographical information with little or no use of fieldwork examples  
• Both students may or may not contribute equally to the conversation  
• Script of conversation is provided |
| **0** | • Non-submission/non-attempt |
**PART C: FIELDWORK BOOKLET**

**Key Inquiry Question**

*Is Sydney’s ‘Central District City’ a liveable and sustainable city?*

Parramatta and Rouse Hill are part of the Central District City. Your goal during the fieldwork in Parramatta and Rouse Hill is to collect information that will assist you in answering the key inquiry question above.

Use the following to assist you collect the data:

- Observation notes
- Photos
- Line drawing
- Liveability Survey

You will use this information and further research for the assessment task.

<table>
<thead>
<tr>
<th>Location</th>
<th>Start</th>
<th>Finish</th>
<th>Bus Pick Up</th>
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<tbody>
<tr>
<td>Parramatta South</td>
<td>Western Sydney University Smith St Open Space</td>
<td>Parramatta Centennial Square</td>
<td>Parramatta Park</td>
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<tr>
<td>Stops 1 to 8</td>
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<tr>
<td>Parramatta North</td>
<td>Parramatta Ferry Wharf Intersection Charles St and Phillip St.</td>
<td>Parramatta Park</td>
<td>Parramatta Park</td>
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<td>Stops 9 to 15</td>
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<tr>
<td>Rouse Hill</td>
<td>Caddies Boulevard</td>
<td>Caddies Creek</td>
<td>Caddies Creek</td>
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<td>Caddies Creek</td>
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</table>
Parramatta Tourist Map available at the Parramatta Visitor Centre, 346A Church St Parramatta NSW
Key Inquiry Question

Is Sydney’s “Central District City” a liveable and sustainable city?

Before starting the fieldwork write the features you expect to see in a liveable and sustainable city.

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Now with these features in mind commence collecting your information.

PARRAMATTA SOUTH

EDUCATION

1. Western Sydney University
   a. Student capacity

   ____________________________________________________________

   b. Faculties available

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

   c. What are the advantages and disadvantages of a university in this location.

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<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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2. Arthur Phillip High School

Arthur Phillip High School is being rebuilt.
Find out about this building from the information board.

a. What are the advantages and disadvantages of a high-rise school?

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<th>Advantages</th>
<th>Disadvantages</th>
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b. Why has the construction of the new building been delayed?

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_____________________________________________________________________________
_____________________________________________________________________________

EMPLOYMENT AND HOUSING

3. Curtis Cheng Police Headquarters (employees).
The Police headquarters have moved from the Sydney to Parramatta.

a. What are the advantages and disadvantages for employees working at this site?

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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b. Describe the housing to the south of the Curtis Chang Police Headquarters. Include architecture, building material, number of floors.

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Research back at school:

a. Size of apartments in square metres in Parramatta

b. The price of an apartments in Parramatta in three different areas of Parramatta. Include one-bedroom and two-bedroom apartments.

<table>
<thead>
<tr>
<th>Location</th>
<th>One bedroom</th>
<th>Two bedroom</th>
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</table>

c. Is housing affordable in Parramatta?

Use the information above and the information from the Australian census on household income, rent and mortgage at http://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/125?opendocument

EMPLOYMENT

4. Justice Precinct

a. Name the different courts in this precinct.

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

b. List the different areas of employment provided in this precinct.

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______________________________________________________________________________
______________________________________________________________________________

C. Why is it useful to divide cities into "precincts"?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
EMPLOYMENT, ENTERTAINMENT

5. Westfield Shopping Centre
   a. List the major department stores in Westfield.

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

   b. What evidence is there that Westfield Shopping Centre is also a social centre?

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

TRANSPORT INFRASTRUCTURE

6. Parramatta Interchange
   a. How many bus stands are there?

   ____________________________________________________________

   b. Write down the destinations of two buses.

   ____________________________________________________________
   ____________________________________________________________

Research back at school:

   c. How long does the journey from Parramatta to these destinations take?

   ____________________________________________________________
   ____________________________________________________________
7. Go into the train station concourse.
   a. How many train lines are there and what are the destinations?

   ...

   b. How and why has station architecture changed? (Look at the old station)

   ...

Research back at school:
   c. The Parramatta Light Rail Project. What is the proposed route? Why is the government building the light rail?

   ...

   ...

   ...

   ...

   ...

COMMUNITY AND CULTURE

8. Parramatta Centennial Square
   a. Identify evidence of heritage in Centennial Square?

   ...

   ...

   ...

   ...

   b. Look at the information boards on the construction of 5 Darcy St. What will the new building include?

   ...

   ...

   ...

   ...

   c. How does this square enhance community?

   ...

   ...

   ...

   ...
d. Write down evidence of community culture.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

e. Landuse Map. Complete a landuse map of the Centennial Square area and the first block of Church St.

![Landuse Map Diagram]

Legend

<table>
<thead>
<tr>
<th>Heritage</th>
<th>Banking /Financial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>Open Space</td>
</tr>
<tr>
<td>Restaurants</td>
<td>Other</td>
</tr>
</tbody>
</table>
PARRAMATTA NORTH

1. Parramatta River

TRANSPORT

a. Parramatta River Ferry. Comment on the benefits and impacts of ferry transport.

______________________________________________________________

______________________________________________________________

Research back at school:

b. Research back at school: How long does the ferry take to travel to the city?

______________________________________________________________

CULTURE

Use the information boards on the river bank near the stairs.

a. Explain how the “eel” became the Parramatta emblem.

______________________________________________________________

______________________________________________________________

b. Who are the traditional owners of the area?

______________________________________________________________

______________________________________________________________

b. What evidence is there that First Nation culture is acknowledged?

______________________________________________________________
10. Site for new Museum of Applied Arts and Science (currently a parking station).

**Research back at school:**

a. How will the new Museum of Applied Arts and Science enhance liveability?
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

b. Identify the features that make the river area attractive for the community.
____________________________________________________________________________
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**HOUSING**

11. The David Jones department store was on this site before the Meriton Building.

a. What are the impacts of the Meriton high rise? Include positive and negative impacts.
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
b. Looking back to the Meriton Building complete a line drawing below. Remember to divide your drawing into foreground, middle ground and background. Label the main features in your drawing.

Title: ___________________________________________________________
CULTURE, EDUCATION AND HERITAGE.

12. Riverside Theatre
   a. Write the performances currently at the Riverside Theatre.

   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________

13. Walk through Prince Alfred Park to St Patrick’s Cathedral and to Grose St.
   a. What do you see? Why is this area important?

   ___________________________________________________________
   ___________________________________________________________
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   b. Why do you think it is important to keep our heritage buildings?

   ___________________________________________________________
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14. Parramatta Stadium
   The plan for the Central District City includes creating great places that “reflect shared community values and culture. Through this, they attract residents, workers, visitors, enterprise and investment”.
   a. How will the stadium fulfil these aims?

   ___________________________________________________________
   ___________________________________________________________
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Research back at school:

a. Research back at school: Research the proposed light rail to North Parramatta, the Parramatta North and Westmead development projects.

______________________________________________________________________________
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OPEN SPACES AND HERITAGE

15. Parramatta Park. Established in 1858 and is 85 hectares.

“Open space in high density neighbourhoods need to be durable, multipurpose and accessible to a wide variety of users” https://www.greater.sydney/central-city-district-plan/sustainability/city-its-landscape/delivering-high-quality-open-space

a. How successful is Parramatta Park in meeting the above criteria?
______________________________________________________________________________
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Complete the “Liveability Survey on the next page.”
## Parramatta Liveability Survey

Use the knowledge you have gained from the fieldwork to complete the following survey.

### Liveability and Sustainability

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Score</th>
<th>Poor/low</th>
<th>Good/high</th>
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</thead>
<tbody>
<tr>
<td><strong>Productivity: Economic factors</strong></td>
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<tr>
<td>Employment opportunities</td>
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<td>1 2 3 4 5</td>
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<tr>
<td>Affordable housing</td>
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<td>1 2 3 4 5</td>
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<tr>
<td>Variety of housing styles</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>Access to shops and department stores</td>
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<td>1 2 3 4 5</td>
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<tr>
<td><strong>Infrastructure</strong></td>
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<tr>
<td>Quality of road access</td>
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<td>1 2 3 4 5</td>
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<tr>
<td>Public walkways</td>
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<td>1 2 3 4 5</td>
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<tr>
<td>Availability of public transport</td>
<td></td>
<td>1 2 3 4 5</td>
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<tr>
<td>Transport interchanges and commuter parking</td>
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<td>1 2 3 4 5</td>
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<td>Street lighting</td>
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<td>Cycle ways</td>
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<tr>
<td><strong>Environmental factors</strong></td>
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<tr>
<td>Quality of urban design</td>
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<td>Architecture</td>
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<tr>
<td>Biophysical environment e.g. bushland, waterways</td>
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<tr>
<td>Open spaces</td>
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<tr>
<td>Open space facilities e.g. seating, water bubblers</td>
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<td>Maintenance of open spaces</td>
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<td><strong>Services</strong></td>
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<td><strong>Education</strong></td>
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<td>Choice of schools</td>
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<td>Quality public schools</td>
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<tr>
<td>Opportunities for post-school education</td>
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<td><strong>Local Government Services</strong></td>
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<td>Library</td>
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<td>Waste collection</td>
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<tr>
<td><strong>Social/Cultural Factors</strong></td>
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<tr>
<td>Acknowledgement of heritage</td>
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<tr>
<td>Acknowledgement of cultural diversity</td>
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<tr>
<td>Community meeting and event spaces</td>
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<tr>
<td>Cultural centres e.g. theatre, sports centres</td>
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<tr>
<td>Spaces for young people including playgrounds</td>
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<tr>
<td>Graffiti and vandalism</td>
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Adapted from GeoSpace http://www.geogspace.edu.au/verve/_resources/2.3.6.1_assessing_liveability_survey.pdf
ROUSE HILL

Rouse Hill is an urban area within the Hills Shire. Castle Hill and Rouse Hill are the two dominant urban centres in the Hills Shire.

SNAPSHOT OF THE SHIRE:
- 165,931 people live in the Shire
- 26.5% of population is under 17 years of age
- 14.4% of population 60+ years of age
- 69.6% of families in the Shire are parents with children
- 52,118 people work
- There are 54,369 dwellings in the Shire
- 25.5% of residents moved to the Shire in the last five years

Kellyville/Rouse Hill, North Kellyville and Box Hill, will provide about 25,000 new dwellings over the next 20 years. 18% of dwellings in the shire are medium or high density, compared with 44% in Greater Sydney. To help address this need, council made a landmark agreement with the NSW Department of Planning, which will allow larger family-focused apartments to be built. Some 20% of new apartments must have three or more bedrooms to ensure there are enough larger household types available for families – the main demographic living in (and moving to) north-west Sydney.

HOUSING

a. Traveling to Rouse Hill what do you notice about the change in housing styles from Baulkham Hills to Castle Hill.

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______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

b. Describe the variety of housing in Rouse Hill. Why are there apartments in this area?

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______________________________________________________________________________

c. List schools in the area.

______________________________________________________________________________
______________________________________________________________________________
EMployment

a. List the different sectors of employment available in the Norwest Business Park.

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

RouSe HILL TOWN CENTRE

SUSTAINABILITY – BIOPHYSICAL ENVIRONMENT

1. Caddies Creek

a. Comment on the impact of urban development on the biophysical environment at Caddies Creek. Include flora, fauna, water and soil impacts.

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______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

b. Identify the features that make the river area attractive for the community.

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______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
COMMUNITY AND CULTURE

2. Main Street

a. How different is the Rouse Hill Town Centre to a Westfield Centre and why has this design been adopted?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

b. As you walk along Main Street in the Town Centre identify community facilities. E.g. Library, meeting places.

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

EMPLOYMENT

a. As you walk along Main Street identify the different types of business:

<table>
<thead>
<tr>
<th>Business</th>
<th>Tally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td></td>
</tr>
<tr>
<td>Restaurants</td>
<td></td>
</tr>
<tr>
<td>Banking /Financial</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>
TRANSPORT

62% of Hills Shire residents drive to work. 12% take a bus to work.

At the end of Main Street you will see the Norwest Light rail under construction.

a. How many cars will the light rail take off the roads?

b. Comment on the impact on liveability of the Norwest Light Rail.

Research back at school:

c. The Norwest Light Rail.

Complete the Rouse Hill Liveability Survey over the page.

Back at school compare your survey to the opinion of Rouse Hill Town Centre in this article http://architectsajc.com/press-release-rouse-hill-town-centre-one-of-the-worlds-best/

Assess the validity of the article.
ROUSE HILL LIVEABILITY SURVEY

Use the knowledge you have gained from the fieldwork to complete the following survey.

**LIVEABILITY AND SUSTAINABILITY**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Score</th>
<th>Poor/low</th>
<th>Good/high</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Productivity: Economic factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Employment opportunities</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Affordable housing</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Variety of housing styles</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Access to shops and department stores</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Infrastructure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Quality of road access</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Public walk ways</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Availability of public transport</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Transport interchanges and commuter parking</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Street lighting</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cycle ways</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Environmental factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Quality of urban design</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Architecture</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Biophysical environment e.g bushland, waterways</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Open spaces</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Open space facilities e.g. seating, water bubblers</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Maintenance of open spaces</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Choice of schools</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Quality public schools</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Opportunities for post-school education</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Local Government Services</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Library</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Waste collection</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social /Cultural Factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Acknowledgement of heritage</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Acknowledgement of cultural diversity</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Community meeting and event spaces</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cultural centres e.g. theatre, sports centres</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Spaces for young people including playgrounds</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Graffiti and vandalism</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adapted from GeoSpace http://www.geogspace.edu.au/verve/_resources/2.3.3.6_1_assessing_liveability_survey.pdf
PARRAMATTA

Toilets are located at:
- Stop 8: Parramatta Centennial Square
- Stop 9: Ferry Wharf
- Stop 15: Parramatta Park

**EDUCATION**

**Stop 1: Western Sydney University**
- Student Capacity = 8,000 students. 10 Floors
- Faculties available: Over 60 courses including undergraduate and post graduate. Business, IT, Social Work, Urban Planning and Management, Finance, Management. No lecture theatres - interactive teaching and learning, conducted in student-centred learning studios using IT.

**Stop 2: Arthur Phillip High School**
A school has been on this Smith Street site since 1875. Arthur Phillip High School was established as a separate school to the Primary School in 1960. Arthur Phillip High School is being rebuilt with room for 2,000 students. The new facilities will incorporate future-focused, flexible teaching spaces with adaptable/moveable furniture and room configurations. The learning spaces will be technology-rich to serve multiple learning contexts from large class groups to small clusters, providing better opportunities for collaboration and personalised learning. Due for completion 2019. The discovery of 13,000 artefacts has slowed the progress of construction. [https://www.watpac.com.au/project/arthur-phillip-high-school-and-parramatta-public-school/](https://www.watpac.com.au/project/arthur-phillip-high-school-and-parramatta-public-school/)

**EMPLOYMENT**

**Stop 3. Curtis Cheng NSW Police Headquarters**
The Curtis Chang Centre is the NSW Police Force Headquarters (but doesn't house the Police Commissioner – he is in the city). It does accommodate State Crime Command which includes: Organised Crime units (Drug squad, Firearms and Organised Crime squad, Gangs squad, Middle Easter Organised Crime squad); Serious Crime units (Fraud and cyber crime), Homicide (Child abuse, property crime, robbery and serious crime, sex crimes); also includes an Intelligence Unit and Professional Standards. There is the State Intelligence Service Command, Forensic Services Command, Prosecutions Command, Human Resources and Business Tech Solutions (IT & accounts etc). There are approximately 2,000 staff.

**Stop 4. Justice Precinct**
The Parramatta Justice Precinct (PJP) is located in the western part of the central business district. The precinct houses the corporate headquarters of the New South Wales Department of Attorney General and Justice. Other legal offices include the Children's Court of New South Wales and the Sydney West Trial Courts, Legal Aid Commission of New South Wales, Office of Trustee and Guardian (formerly the Office of the Protective Commissioner), NSW Registry of Births, Deaths and Marriages, Office of the Director of Public Prosecutions, as well as a branch of the Family Court. Nearby on Marsden Street is the Parramatta Courthouse and a courthouse where the specialist Drug Court of New South Wales sits. The Garfield Barwick Commonwealth Law Courts Building (named in honor of Sir Garfield Barwick), houses courts of the Federal Magistrates Court of Australia and the Family Court of Australia. [https://en.wikipedia.org/wiki/Parramatta_Justice_Precinct](https://en.wikipedia.org/wiki/Parramatta_Justice_Precinct)
EMPLOYMENT, ENTERTAINMENT

Stop 5: Westfield Shopping Centre

The centre is owned and managed by The Westfield Group. This shopping centre is now managed by Scentre Group. It has a net leasable area of approximately 137,407m² and contains 498 shops built over five levels, making it Australia’s fourth largest shopping centre by Gross Leasable Area (GLA).

Westfield Parramatta’s trade area population is 665,720; one of the largest markets for shopping centres in Australia, and its 28.7 million customer visits per annum makes it Australia’s busiest Westfield shopping centre. https://en.wikipedia.org/wiki/Westfield_Group

TRANSPORT INFRASTRUCTURE

Stop 6 and 7: Parramatta Interchange

Parramatta station is one of Sydney’s oldest. Sydney’s first line connected Sydney and Parramatta Junction near Granville and opened on 26 September 1855. It was extended to the current Parramatta station on 4 July 1860. It is served by Sydney Trains T1 Western Line, T2 Inner West & Leppington and T5 Cumberland Line services and NSW TrainLink Blue Mountains Line, Central West XPT and Outback Xplorer services. The Interchange was upgraded in 2003 to include an underground connection to Westfield and bus interchange.

COMMUNITY AND CULTURE

Stop 8: Parramatta Centennial Square

Open space for those that live and work in Parramatta CBD. Markets held regulary, school holiday activities, community events.

Town Hall built 1883. St John’s Church – oldest church site in Australia. Originally a simple building the old church was rebuilt in 1850’s.

Construction site on corner of Number 1 Darcy St and Parramatta Centennial Square will include:

- A community library and large screen for community events including theatre and music.
- There is information on notice boards on the wall around the construction:
  - $2.7 billion project
  - One of the largest urban renewal projects in Australia
  - Three hectare site
  - Contains the largest commercial office building in Australia

TRANSPORT, CULTURE

Stop 9: Parramatta River

Information on the First Nations People is on the information boards near the steps. The Darug people who lived in the area before European settlement regarded the area as rich in food from the river and forests. They called the area Baramada or Burramatta (’Parramatta’) which means “head of waters”, “the place where the eels lie down” or “eel waters”.

Ferry Wharf: There has been a wharf at Parramatta since shortly after a settlement was established. The wharf is located next to the Queens Wharf Reserve and the Gasworks Bridge, which was close to the site of the first official landing place at Parramatta, when Governor Phillip and a small number of marines arrived in 1788 to establish a second settlement. In December 1993, the State Transit Authority resumed services to Parramatta.
Today Parramatta wharf is served by Sydney Ferries Parramatta River services operating to and from Circular Quay. The single wharf is served by RiverCat class ferries. During periods of low tide, services terminate at Rydalmere with passengers completing the final part of the journey by bus.
https://en.wikipedia.org/wiki/Parramatta_ferry_wharf

Stop 10: Parramatta River Site for new Museum of Applied Arts and Science (currently a parking station)
The State’s largest museum will be built on the Parramatta riverbank. With 18,000 sqm of exhibition and public spaces, it will have a science and technology focus and include the largest planetarium in Australia. This will be complemented by a dedicated play and learning space devoted to STEAM, children’s spaces, cafes, bars, retail, and event and function spaces. The museum, which will open in 2023, will be an anchor for a new arts and cultural precinct in Parramatta, which will include revamped Riverside Theatres and a new pedestrian bridge across the river. https://www.cityofparramatta.nsw.gov.au/about-parramatta/maas

HOUSING

Stop 11: Meriton Apartments and retail.
Former David Jones site – photo of David Jones is in the fieldwork booklet.
‘Altitude Apartments” Two buildings, one 39 floors the other 55 with 375 apartments and child care centre and retail. The Taller Altitude tower measuring 177m has now become the tallest building on the Parramatta skyline. It will be overtaken by the Macquarie Towers which is currently under construction and expected to be completed sometime in 2019.
The building has many items including luxury pools, a high-end restaurants and a childcare facility all within walking distance of all the amenities in Parramatta. Not only that but also being situated on the Parramatta River. https://www.buildsydney.com/altitude-meriton-topped-parramatta/

CULTURE, EDUCATION AND HERITAGE

Stop 12: Riverside Theatre
Riverside Theatres is a multi-venue performing arts centre. Opened in 1988, its venues include the 761-seat proscenium arch Riverside Theatre, the 213-seat Lennox Theatre, and the 88-seat Raffety’s Theatre.
The National Theatre of Parramatta is a resident theatre company.[2] Other regular companies and productions that perform there include Packemin Productions, Sydney Theatre Company, Sport For Jove, The Premier State Ballet, Cumberland Gang Show and Pacific Opera.

Stop 13: Walk through Prince Alfred Park to St Patrick’s Cathedral and to Grose St.
Prince Alfred Park
Prince Alfred Square is of state heritage significance as an intact representative example of a square or public park layout from the Victorian era, embellished in the Edwardian, inter-war and post-war eras. It is a rare example of the early Public Parks Movement in NSW. Significant for the age and maturity of its tree plantings. The oldest, including Moreton Bay figs, a camphor laurel and a Bunya pine, date from the mid Victorian period (c.1869-70s), and are reinforced by Federation-period plantings and later plantings (c1930s).
The site has historical values at a state level as it is the site of Parramatta’s second gaol (1804 - 1841), first female factory (1804-1821), as a village green since 1837 and for associations with the Royal Visit of Prince Alfred in 1868. The site has exceptional archaeological research potential related to the above events. https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5053902
Now the park is an important open space (note the high rise apartments in the area nearby) and community events area. The Winterlight festival is held in July which includes a skating rink.
St Patrick’s Cathedral
St Patrick’s was extensively rebuilt after a 1996 fire devastated the original church established in 1854. It is the residence of the Catholic Bishop of Parramatta, currently the Most Reverend Vincent Long Van Nguyen OFM Conv.

Our Lady of Mercy College, Parramatta
Site of a school since 1860’s. One of the oldest girls’ schools in Australia. The College was founded by a group of Mercy sisters from Callan, County Kilkenny, Ireland. The Sisters of Mercy were invited to come run a Catholic school in Parramatta. They opened the school on its present site in January 1889, with seven high school students. Currently 1000 students.

Stop 14: Bankwest Stadium
The Bankwest Stadium is the replacement for the demolished Parramatta Stadium. The stadium opened in mid 2019 with a 30,000 seat capacity. The stadium is owned & operated by the NSW Government, designed by Populous Architects and being built by Lend Lease Group with a build cost budgeted at $300 million. The stadium will host A-League matches of the Western Sydney Wanderers and National Rugby League matches for the Parramatta Eels. https://en.wikipedia.org/wiki/Western_Sydney_Stadium

OPEN SPACES AND HERITAGE

Stop 15: Parramatta Park. Established in 1858 and is 85 hectares.
The area of Parramatta was known by the Darug people as Burramatta (“Burra” meaning eel and “matta” meaning creek) and was managed by the Burramatta clan for many thousands of years before European settlement in 1788. The early governors of the British colony established and lived in what is now known as Old Government House – just one of the many heritage-listed buildings that pepper Parramatta Park.

But 160 years ago, in 1858, 246 acres in Parramatta were declared public land and given back to the people, making Parramatta Park one of the oldest public parks in the world. The park was listed as a World Heritage site in 2010. https://www.parrapark.com.au/heritage/world-heritage/
PARRAMATTA TO ROUSE HILL

Travel via Windsor Road, Norwest Boulevarde to Old Windsor and then to Rouse Hill Town centre

On route to or from Parramatta boys are to note the changes in housing styles from Baulkham Hills to Castle Hill. Houses tend to become larger moving toward Castle Hill where the developments are more recent.

Note any schools in the area. Access to transport, variety of housing, open spaces, community facilities. Going along Norwest Boulevarde through Norwest Business Park students can note the various business and employment as well as housing. The business park began in 1983.

Along Old Windsor Road students can note the development of the Norwest light rail and think of the positive and negative impacts.

“Sydney Metro Northwest is delivering eight new railway stations and 4000 commuter car parking spaces to Sydney’s growing North West. Trains run every four minutes in the peak, that’s 15 trains an hour. Customers don’t need a timetable, they just turn up and go.

Sydney Metro Northwest, formerly the North West Rail Link, is the first stage of Sydney Metro and will be the first fully-automated metro rail system in Australia. Sydney Metro City & Southwest is the second stage.

Sydney Metro Northwest will deliver, for the first time, a reliable public transport service to a region which has the highest car ownership levels per household in NSW. Over the coming decades, an extra 200,000 people will move into Sydney’s North West, taking its population above 600,000, or twice the size of Canberra.”

https://www.sydneymetro.info/northwest/project-overview

ROUSE HILL TOWN CENTRE

Toilets are located:
- Near the Reject Shop and
- Near the Toyota Car Dealership

Rouse Hill Town Centre opened in 2007 and changed the face of retail and residential living in North Western Sydney. Designed for the community, Rouse Hill Town Centre is located in the Hills District as part of The New Rouse Hill, approximately 35 kilometres north west of the Sydney CBD.

Rouse Hill Town Centre combines the traditional values and streetscape of a contemporary market town with the latest fashion, homewares, dining, community services and lifestyle choices. With over 230 specialty stores including Woolworths, Coles, Big W, Target and a Reading Cinema, you’re bound to find what you need in the convenience of the Town Centre.

Winning several international planning & design awards, Rouse Hill Town Centre is different to a shopping centre, because it’s a Town Centre. It’s filled with learning spaces including North West Community College & Learn 2 plus Vinegar Hill Library. Rouse Hill Town Centre also accommodates interactive play areas for children (The Backyard) and respite areas for families (The Secret Garden).

Rouse Hill Town Centre has been planned as a sustainable shopping destination with entertainment and facilities for all the family. Check out our environmental and community pages for more information on how GPT has integrated sustainability into the planning of the Town Centre for the community”

Context
This task asked Year 9 students (Stage 5) to create and present a plan for how an Australian city or suburb could be further developed to maximise economic, environmental and social sustainability. The task was unique in that students were required to present their plans to the marker through a Virtual Reality (VR) tour; utilising a new program called ‘Tour Creator’ offered by Google in mid-2018.

The project’s intention was to aid students in the development skills such as research, critical thinking and problem solving; mimicking what they would be doing beyond school in the field of Geography. The project also enabled students to gain an expert understanding of how to use and apply emerging technologies like VR. It was also a personal mission to show colleagues that VR could be more than just passive observation of foreign environments and that students could engage and create their own worlds.

Scaffolded booklet
Previously, when implementing similar projects with other classes, a major dilemma was finding the balance between providing students with content and/or technological knowledge weighed against the time that students had to work on their projects. The booklet was the means in which this dilemma was overcome. The booklet also scaffolded students throughout the project and enabled differentiation of both ends. I was able to assist lower-ability students while higher-ability students could continue with the task in a self-directed manner. An added bonus was being able to see progress throughout the completion of the project by observing student booklets. By the end of the task, all students in year 9 turned in a VR tour with varying degrees of depth of knowledge and understanding of how their chosen city could be made more sustainable.

Advice for integrating new technologies
In order to implement such a task with a class, it is important to take the initial risk. If failure occurs, trying a different approach may assist. With integrating emerging technologies in a classroom setting, persistence is key. Trialing your own task is a must to ensure that all components work, whether it be the program or instructions. Furthermore, it is important to keep an eye out for new and improved programs or technologies which make the task easier to complete (older versions of this task used ‘Story Sphere’ by Google which may be considered outdated). Finally, ensure that students have a model to help them understand the expectations of their final product. There is an array of samples that can be found on https://poly.google.com/ when an Australian city is typed into the search bar.

Source: https://medium.com/@_the_kate_d/whats-up-wednesday-tech-edition-google-tour-creator-a-free-tool-to-create-360-virtual-tours-96ebadde7de3
Inquiry Question

How can we, as urban planners, create a virtual reality tour to educate the public about a chosen Australian city’s plan to become a city that is sustainable?

Task

You have been asked by a developer, for example Walker Corporation, UrbanGrowth NSW Development Corporation, to create a virtual reality tour to help educate the public about an Australian City’s plan to become more sustainable.

You will develop a Virtual Reality Tour AND Report which:

- Displays areas of urban growth, consolidation or renewal within your chosen city.
- Describes the population projections for Australia and your chosen city by 2030.
- Discusses the impacts that the population projection will have on the city.
- Explains real strategies to create economic, social and environmental sustainability in your chosen city.
- Proposes TWO additional strategies for how your chosen city can be made more sustainable for local communities and future generations.

## OUR CLASS SCHEDULE

<table>
<thead>
<tr>
<th>LESSON ONE</th>
<th>LESSON TWO</th>
<th>LESSON THREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Complete Proposal</td>
<td>□ Population projections and impact</td>
<td>□ Malmö case study</td>
</tr>
<tr>
<td>□ Initial research of chosen city in Australia</td>
<td>□ Sustainability reading</td>
<td>□ What does a sustainable city look like?</td>
</tr>
<tr>
<td>□ Play around with Google Tour Creator</td>
<td>□ Three pillars of sustainability</td>
<td>□ Google tour creator</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LESSON FOUR</th>
<th>LESSON FIVE</th>
<th>LESSON SIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Research and take notes</td>
<td>□ PEEL paragraph</td>
<td>□ Narrations script</td>
</tr>
<tr>
<td>□ How is your chosen city doing/going to do sustainability?</td>
<td>□ Time to work on your Virtual Tour</td>
<td>□ Recording narrations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LESSON SEVEN</th>
<th>LESSON EIGHT</th>
<th>LESSON SEVEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ How to form a proposal</td>
<td>□ Report structure</td>
<td>□ Final touches Virtual Tour</td>
</tr>
<tr>
<td>□ Proposal</td>
<td>□ Put together report</td>
<td>□ Final touches on report</td>
</tr>
</tbody>
</table>

### How to create a Virtual Reality Tour using Google Tour Creator
Watch the following clip: [https://www.youtube.com/watch?v=2s4rhDbyYo4](https://www.youtube.com/watch?v=2s4rhDbyYo4)

### PURPOSE OF BOOKLET
The aim of this booklet is to assist you with your project.
In this booklet you will complete activities from the assessment task in smaller chunks while also helping you to understand the key concepts, terminology and theory behind our topic.

### ASSESSMENT ACTIVITY 1:
**Involves creating your Virtual Reality Tour.**

Activities 2–5 will be labeled in this booklet as ASSESSMENT ACTIVITIES. Please ensure that you answer these questions in as much detail possible and then transfer your response to a separate Google Doc for your FINAL REPORT.

Lines are an indication of how much you should be writing.
PROPOSAL

What is your chosen city? Provide the exact coordinates.
____________________________________________________________________________
____________________________________________________________________________

Describe how your chosen city is changing.
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

Discuss the reason why you chose to focus on this city.
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What are you interested in finding out about your chosen city.
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INITIAL RESEARCH

Define

Urban consolidation:
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Urban sprawl:
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Urban growth:
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Urban renewal:
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What is the history of your chosen city?
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What is your chosen city currently known for?
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Read TWO recent news articles about your city and summarise how your city is perceived and how it is changing.
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Copy and paste website URLs...
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POPULATION PROJECTIONS

A population projection gives a picture of what the future population may look like, based on knowledge of the past and taking, for the future, hypotheses based on fertility, mortality and migrations.

Read the following:


ASSESSMENT ACTIVITY 2:

Describe the population projections of Australia and your chosen city by 2030.
(If the population projections for your chosen city are not found, please write about the capital city’s projection and discuss the impact that this would have on your city)

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ASSESSMENT ACTIVITY 3:

Discusses the impacts that the population projection will have on the city.
(Write about your chosen city)

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SUSTAINABILITY

To be sustainable simply means to enable things to continue to achieve a form of existence which can be maintained indefinitely (for an unspecified time).

The word sustainable is actually an adjective, which means it is used to qualify, clarify or add meanings to nouns (or names) and other phrases. As a result, when we use the term sustainable we rarely use it in isolation, but instead add it to words like agriculture, economy, environment and of course society.

Thus, the word sustainable transforms the way we understand the world around us and suggests that instead of promoting unmaintainable practices like clear-cutting forestry, boom and bust economics, or environmental pollution, we develop sustainable systems of forestry, a sustainable economy, a sustainable environment.

In today’s world you may have noticed that the phrase ‘sustainable’ has become a very fashionable adjective, appearing in an increasingly wide range of contexts (and qualifying an increasingly large number of nouns).


Use the definition above to assist you in writing down a definition for **sustainable development**.

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THE THREE PILLARS OF SUSTAINABILITY

Watch the following clip and complete the task below.
https://www.youtube.com/watch?v=7V8oFl4GYMY&t=43s

For extra assistance read the following website https://ecoabode.com.au/3-pillars-sustainability/

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MALMÖ CASE STUDY

Watch and read the following:

https://youtu.be/6yZYXSsWnsg
https://youtu.be/OXMTAo3CjJE
https://youtu.be/q0NCTHEm1IQ

How is Malmö different to most cities?

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Take notes about the sustainable practices, technologies and layout/construction of Malmö.

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WHAT DOES A SUSTAINABLE CITY LOOK LIKE?

Watch and read the following:

https://youtu.be/fcDDUSUbq9A
https://youtu.be/qkg85KaXGjY
https://www.fastcompany.com/3016816/the-10-cities-that-are-leading-the-way-in-urban-sustainability

Take notes on the aspects which make these cities sustainable.

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What is interesting about Sydney’s sustainable vision? Take notes about what will be implemented.

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My Green city icon city – Image © by Natalie Hughes
Source: sustainablelearning.com
RESEARCH SUSTAINABLE VISIONS

Instructions:

1. In Google type in the keywords “sustainable vision” and your city’s name or “strategic plan” and your city’s name. This will provide you with websites (mostly council websites) which highlight how your chosen city would like to become more sustainable.

2. Take notes about your chosen city’s plans. Focus on Environmental, social and Economic sustainability.

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ASSESSMENT QUESTION 4

Write THREE PEEL paragraphs which –

Explain real strategies to create economic, social and environmental sustainability in your chosen city.

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2. ____________________________________________________________________________
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3. ____________________________________________________________________________
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NARRATION SCRIPT

Scene 1  Describe what is shown within the scene. How is it related to the topic?
What aspect of change is sustainable?
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Scene 2  Describe what is shown within the scene. How is it related to the topic?
What aspect of change is sustainable?
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Scene 3  Describe what is shown within the scene. How is it related to the topic?
What aspect of change is sustainable?
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Scene 4  Describe what is shown within the scene. How is it related to the topic?
What aspect of change is sustainable?
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Scene 5  Describe what is shown within the scene. How is it related to the topic?
What aspect of change is sustainable?
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HOW TO FORM A PROPOSAL

Scaffold and example of a proposal:

☐ Project Summary
☐ Goal/Objective
☐ Description of Specific Steps
☐ Time frame Estimate
☐ Description of Project Budget Estimate
☐ Resources Needed
☐ Evidence of Accomplishment

E.g. We propose a new tram line connecting the outskirts of Toongabbie to the centre. This will help with traffic congestion and help prevent needless Carbon Dioxide emissions from car. This undertaking will take time: the first year surveyors will map tram lines, the second year construction will begin in isolated area to prevent traffic, by the fifth year tram lines will have trams running. The estimate cost $1 billion. Steel and skilled laborers are required. When services are running our aims will be met.

ASSESSMENT QUESTION 5

Propose TWO additional strategies for how your chosen city can be made more sustainable for local communities and future generations.

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PUTTING YOUR REPORT TOGETHER

A report has:

- **An introduction** – introduces the topic, the subheadings that you will explore and your case studies.
- **A body** – with subheadings and several paragraphs (you may have 5). Please also include data, graphs, maps, statistics and/or images etc. and refer to them within your response.
- **A conclusion** – summary of what you explored within the report.
- **Bibliography** – APA 6th edition (Nothing new)

1. Sort through the assessment responses that you answered on this document and piece them together in a new separate document for your final submission.
2. Remember to use subheadings and to re-read and edit your work.

A Virtual Reality Tour might look like this

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**NSW GEOGRAPHY SYLLABUS 7–10**

**Outcomes**

- GE5-5 assesses management strategies for places and environments for their sustainability
- GE5-7 acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry
- GE5-8 communicates geographical information to a range of audiences using a variety of strategies

**Sustainability**

In Geography, students examine the effects of human activities on environments and how challenges to sustainability, and strategies to address these, vary from place to place.

**Geographical tools: Spatial technologies**

Spatial technologies include any software or hardware that interacts with real world locations. Spatial technologies are used to visualise, manipulate, analyse, display and record spatial data.

**Information and communication technology capability**

Students locate, select, evaluate, communicate and share geographical information using digital and spatial technologies.

Students develop ICT capability by maximising use of the technologies available to them, adapting as technologies evolve.

**Critical and creative thinking**

Students are encouraged to be curious and imaginative in investigations and fieldwork and to think creatively about the ways that the places and spaces they use might be better designed, and about possible, probable and preferable futures

Source: https://educationstandards.nsw.edu.au/wps/portal/nesa/k-10/learning-areas/hsie/geography-k-10