GE 5: CHANGING PLACES



Sharon McLean Vice-President GTA NSW and ACT

PARTA: 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.

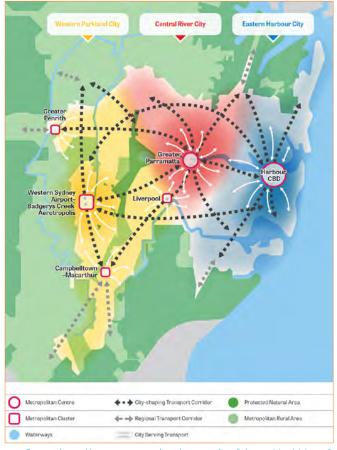
To engage students in the Changing Places topic the following key driving question was proposed: **Is Sydney's 'Central District City' a liveable and sustainable city?**

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.

Map1: Metropolis of Three Cities



Source: 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?

Parramatta Westfield Shopping



Map 2: The Central City District



Source: https://www.greater.sydney/central-city-district-plan/about-plan

Parramatta Square



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
- 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
- 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.
- Students review the criteria used in Greater Sydney Commission for liveability and sustainability at https://www.greater. sydney/metropolis-of-three-cities including infrastructure, housing, employment, environment. Students compare the criteria in their mind map to the criteria for the Metropolis of Three Cities.

How liveable and sustainable is your suburb or town?

- Using the criteria for assessing the liveability and sustainability create an annotated photo study of your suburb or town showing aspects of liveability and sustainability. OR students use the Egan Wheel of Liveability to assess their suburb or town.

The Egan Wheel of Liveability



Source: https://www.ihbc.org.uk/recent_papers/docs/Egan%20Review%20 Skills%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-threecities/why-metropolis-of-three-cities And use the data hub at https://www.greater. sydney/data-hub-liveability
- What are the aims of the Greater Sydney Commission's "Metropolis of Three Cities" plan? https://www.greater.sydney/metropolis-of-threecities/vision-of-metropolis-of-three-cities and interactive https://www.greater.sydney/structureplan-metropolis-three-cities, https://www.greater. sydney/metropolis-of-three-cities/about-plan YouTube: Greater Sydney's Great Cities https://www. youtube.com/watch?v=fXj1E-F8iDI
- Where is the "Central District City"? Google mapping activity, latitude, longitude. https:// www.greater.sydney/central-city-district-plan/aboutplan
- 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.
E.g. https://profile.id.com.au/parramatta https://profile.id.com.au/the-hills

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

Students plans for the city using Central District City Plan https://www.greater.sydney/central-city-district-plan and the Parramatta Council Economic Plan https://www.cityofparramatta.nsw.gov.au/sites/council/files/2017-08/Economic%20Development%20 Plan%202017-2021.pdf

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



Photos by Sharon McLean

Curtis Cheng Police Headquarters



Meriton Apartments Parramatta



Rouse Hill Town Centre



Caddies Lake, Rouse Hill



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.

Parramatta River Cycleway



Rouse Hill Town Centre



Photos by Sharon McLean

Parramatta River Cycleway & Ferry Wharf



CHANGING PLACES

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.





Graphic. Source: https://www.cjsi.ca/event/drop-in-conversation-cafe-2/Parramatta Square design. Source: https://www.cityofparramatta.nsw.gov.au/council/parramatta-square

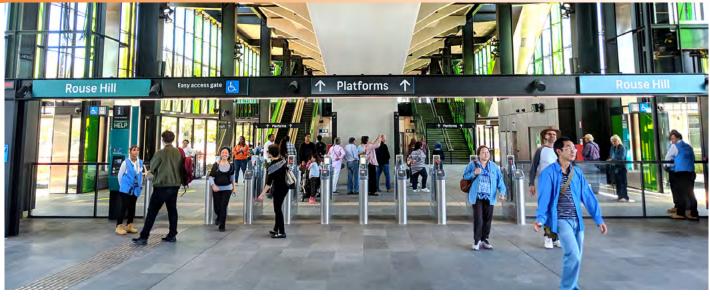
"Parramatta Square is set to become a visionary, world-class landmark and destination in the heart of the Parramatta CBD. Located across a prime three-hectare city block, the \$2.7 billion project will comprise six new buildings and a refurbished Town Hall. The precinct is linked by 6,000sqm of public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

CHANGING PLACES – ASSESSMENT TASK

Marking Criteria

	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
17-20	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
	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
13-16	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
	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
9-12	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
	 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
1-8	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

CHANGING PLACES



Rouse Hill Station, Sydney Metro. Source: https://upload.wikimedia.org/wikipedia/commons/b/b5/Sydney_Metro_Rouse_Hill_Station3.jpg

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.

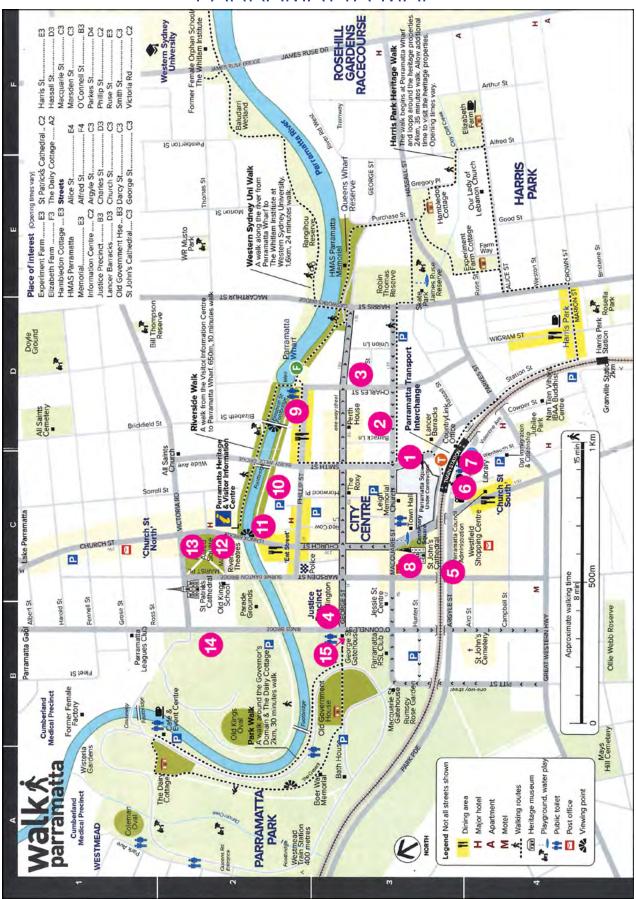
Use the following to assist you collect the data:

- Observation notes
- Photos
- · Line drawing
- Liveability Survey

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

Location	Start	Finish	Bus Pick Up
Parramatta South Stops 1 to 8	Western Sydney University Smith St Open Space	Parramatta Centennial Square	Parramatta Park
Parramatta North Stops 9 to 15	Parramatta Ferry Wharf Intersection Charles St and Phillip St.	Parramatta Park	Parramatta Park
Rouse Hill	Caddies Boulevard Caddies Creek	Caddies Creek	Caddies Creek

PARRAMATTA MAP



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 ir	n a liveable and	l sustainable city

Now with these features in mind commence collecting your information.

PARRAMATTA SOUTH

EDUCATION

i. Western syantey officersity	1.	Western	Sydne	y University	У
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a. Student capacity		

b. Faculties available

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

nd out about this building	from the informa	tion board.	
. What are the advantages	and disadvantag	es of a high-rise school?	
Advantag	ges	Disadvantages	
o. Why has the construction	n of the new build	ing been delaved?	
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Curtis Cheng Police Heado	juarters (employ	rees).	
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Curtis Cheng Police Heado The Police headquarters has. What are the advantages Advantages Do Describe the housing to t	quarters (employ ave moved from and disadvantage ges	the Sydney to Parramatta. es for employees working at this site? Disadvantages urtis Chang Police Headquarters.	

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.

Location	One bedroom	Two bedroom

c. Is housing affordable in Parramatta?

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

EMPLOYMENT

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a. Name the different courts in this precinct.
b. List the different areas of employment provided in this precinct.
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
5.	Parramatta Interchange
	a. How many bus stands are there?
	b. Write down the destinations of two buses.
R	esearch back at school:
	c. How long does the journey from Parramatta to these destinations take?
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_	How many train lines are there and what are the destinations?
b.	. How and why has station architecture changed? (Look at the old station)
Res	earch back at school:
C.	The Parramatta Light Rail Project. What is the proposed route? Why is the government building the light rail?
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	COMMUNITY AND CULTURE
	COMMUNITY AND CULTURE arramatta Centennial Square Identify evidence of heritage in Centennial Square?
	arramatta Centennial Square
	arramatta Centennial Square
a. 	arramatta Centennial Square
ab.	Identify evidence of heritage in Centennial Square? Look at the information boards on the construction of 5 Darcy St.

Write down evidence of co	mmunity culture	2.		
anduse Map. Complete a	landuse map of	the Ce	entennial Square are	ea and the first block of Churc
		Church Street		
		h Stı		
		Jurc		
	Mad	_ cauar	ie Street	
		- '		
gend				
eritage		Ва	anking /Financial	
etail		0	pen Space	
staurants			ther	

PARRAMATTA NORTH

	TRANSPORT
a. F	arramatta River Ferry. Comment on the benefits and impacts of ferry transport.
Re	search back at school:
b. F	desearch back at school: How long does the ferry take to travel to the city?
	CULTURE
	the information boards on the river bank near the stairs.
	the information boards on the river bank near the stairs.
a. E 	the information boards on the river bank near the stairs.
a. E 	the information boards on the river bank near the stairs. xplain how the "eel" became the Parramatta emblem.
a. E	the information boards on the river bank near the stairs. xplain how the "eel" became the Parramatta emblem. Who are the traditional owners of the area?
a. E	the information boards on the river bank near the stairs. xplain how the "eel" became the Parramatta emblem.

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

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.
HOUSING
HUUSING

a.	. What are the impacts of the Meriton high r Include positive and negative impacts.	ise?
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tle:			

CULTURE, EDUCATION AND HERITAGE.

12. Riv	erside Theatre
a. V	Vrite the performances currently at the Riverside Theatre.
13. Wa	lk through Prince Alfred Park to St Patrick's Cathedral and to Grose St.
	hat do you see? Why is this area important?
b. W	/hy do you think it is important to keep our heritage buildings?
4. Pa	rramatta Stadium
	e plan for the Central District City includes creating great places that "reflect shared community ues and culture. Through this, they attract residents, workers, visitors, enterprise and investmen
a. H	ow will the stadium fulfil these aims?

Research back at school:	
a. Research back at school: Research the proposed light rail to North Parramatta, the Parramatta and Westmead development projects.	Nort
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 accessiba wide variety of users" https://www.greater.sydney/central-city-district-plan/sustainability/cilandscape/delivering-high-quality-open-space	
a. How successful is Parramatta Park in meeting the above criteria?	

Complete the "Liveability Survey on the next page.

PARRAMATTA LIVEABILITY SURVEY

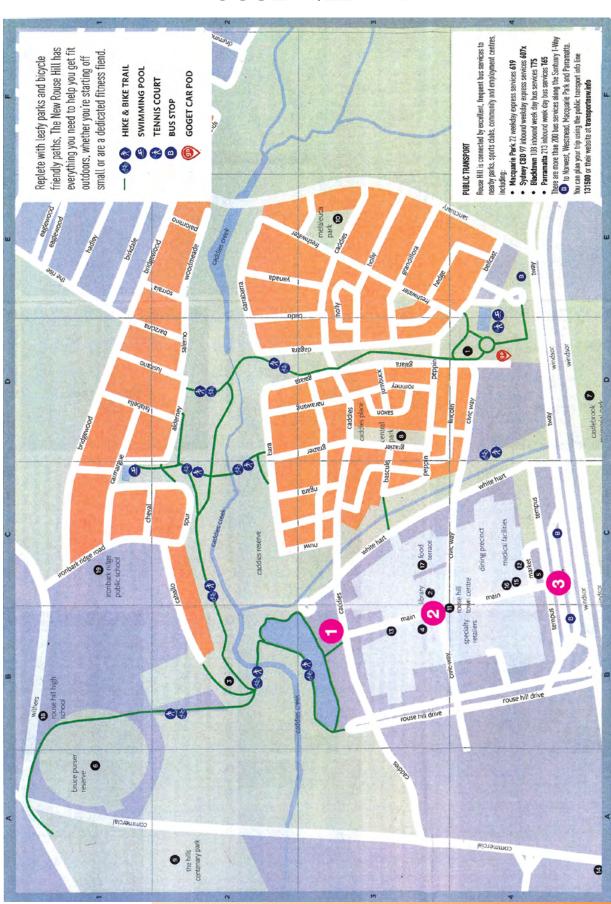
Use the knowledge you have gained from the fieldwork to complete the following survey.

LIVEABILITY AND SUSTAINABILITY

Criteria	_	_	core		
	Р	oor/low	Go	od/hig	jh
Productivity: Economic factors					
 Employment opportunities 	1	2	3	4	5
Affordable housing	1	2	3	4	5
 Variety of housing styles 	1	2	3	4	5
Access to shops and department stores	1	2	3	4	5
Infrastructure					
 Quality of road access 	1	2	3	4	5
 Public walk ways 	1	2	3	4	5
 Availability of public transport 	1	2	3	4	5
 Transport interchanges and commuter parking 	1	2	3	4	5
Street lighting	1	2	3	4	5
Cycle ways	1	2	3	4	5
Environmental factors					
 Quality of urban design 	1	2	3	4	5
Architecture	1	2	3	4	5
Biophysical environment e.g bushland, waterways	1	2	3	4	Ļ
Open spaces	1	2	3	4	5
 Open space facilities e.g. seating, water bubblers 	1	2	3	4	5
 Maintenance of open spaces 	1	2	3	4	5
ervices Education					
Choice of schools	1	2	3	4	5
Quality public schools	1	2	3	4	5
Opportunities for post-school education	1	2	3	4	5
Local Government Services		2	,	7	
• Library	1	2	3	4	5
Waste collection	1	2	3	4	5
	'				_
Social /Cultural Factors	4	2	2		
Acknowledgement of heritage	1	2	3	4	5
Acknowledgement of cultural diversity	1	2	3	4	5
Community meeting and event spaces	1	2	3	4	5
Cultural centres e.g. theatre, sports centres	1	2	3	4	5
Spaces for young people including playgrounds	1	2	3	4	5
Graffiti and vandalism	1	2	3	4	-

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

ROUSE HILL MAP



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

	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.
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EMPLOTMENT
a. List the different sectors of employment available in the Norwest Business Park.
ROUSE HILL TOWN CENTRE
SUSTAINABILITY – BIOPHYSICAL ENVIRONMENT
Caddies Creek
 Comment on the impact of urban development on the biophysical environment at Caddies Cre Include flora, fauna, water and soil impacts.
b. Identify the features that make the river area attractive for the community.

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COMMUNITY AND CULTURE

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

Business	Tally
Retail	
Restaurants	
Banking /Financial	
Other	





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.				
J				

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

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

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

CHANGING PLACES

PART D:BACKGROUND INFORMATION FOR TEACHERS

PARRAMATTA

Toilets are located at:

Stop 8: Parramatta Centennial Square

Stop 9: Ferry Wharf

Stop 15: Parramatta Park

EDUCATION

Stop 1: Western Sydney University

- a. Student Capacity = 8,000 students. 10 Floors
- b. 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/

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

CHANGING PLACES – BACKGROUND

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 regualry, 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.

CHANGING PLACES – BACKGROUND

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 gool (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.

CHANGING PLACES – BACKGROUND

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

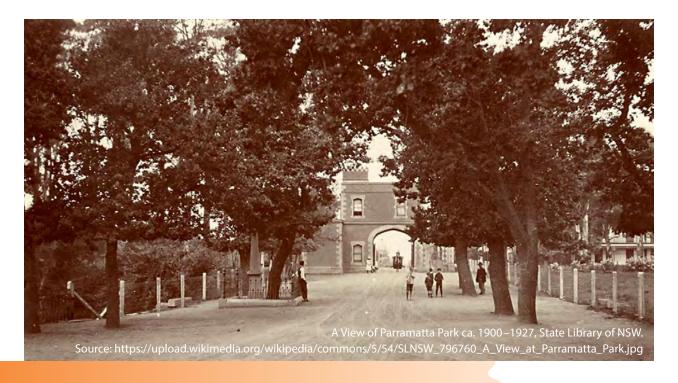
The Bankwest Stadium is the replacement for the demolished Parramatta Stadium. The stadium opened in mid 2019 with a 30,000 seat capacity. The stadium is owned & operated by the NSW Government, designed by Populous Architects and being built by Lend Lease Group with a build cost budgeted at \$300 million. The stadium will host A-Leaguematches 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/



CHANGING PLACES — BACKGROUNDGROUND

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"

https://www.rhtc.com.au/centre-info/about-us

STAGE 5: CHANGING PLACES



Kenan Koparan Geography Teacher at Toongabbie Christian College

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.

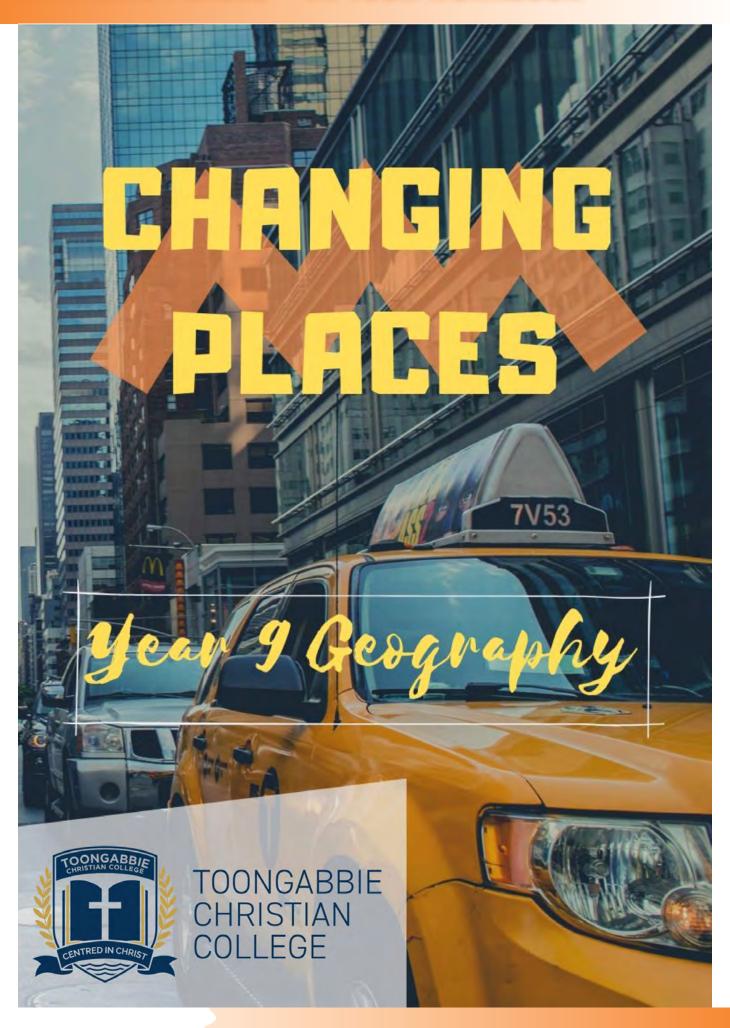
Advice for integrating new technologies

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-tourcreator-a-free-tool-to-create-360-virtual-tours-96ebadde7de3

CHANGING PLACES – VR TOUR WORKBOOK



CHANGING PLACES – VR TOUR WORKBOOK

WORKBOOK CONTENTS

Our Class Schedule

Proposal

Initial Research

Population Projections

Sustainability

The Three Pillars of Sustainability

Malmö Case Study

What Does a Sustainable City Look Like?

Research Sustainable Visions

PEEL Paragraph

Narration Script

How to Form a Proposal?

Putting Your Report Together

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.



Source: www.freepik.com . Creativecommons.org

CHANGING PLACES – VR TOUR WORKBOOK

OUR CLASS SCHEDULE

LESSON ONE	LESSONTWO	LESSON THREE		
☐ Complete Proposal	Population projections and	☐ Malmö case study		
☐ Initial research of chosen city in Australia	impact Sustainability reading	☐ What does a sustainable city look like?		
Play around with Google Tour Creator	☐ Three pillars of sustainability	☐ Google tour creator		
LESSON FOUR	LESSON FIVE	LESSON SIX		
☐ Research and take notes	☐ PEEL paragraph	☐ Narrations script		
☐ How is your chosen city doing/going to do sustainability?	☐ Time to work on your Virtual Tour	☐ Recording narrations		
LESSON SEVEN	LESSON EIGHT	LESSON SEVEN		
☐ How to form a proposal	☐ Report structure	☐ Final touches Virtual Tour		
□ Proposal	☐ Put together report	☐ Final touches on report		

How to create a Virtual Reality Tour using Google Tour Creator

Watch the following clip: 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 ASSESMENT 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.



Icon made by Freepik from www.flaticon.com

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.		
What are you interested in finding out about your chosen city.		



Icon made by Freepik from www.flaticon.com

INITIAL RESEARCH

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

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:

https://www.theguardian.com/australia-news/2018/nov/22/australias-population-forecast-to-hit-30million-by-2029

https://mccrindle.com.au/insights/blog/australias-capital-cities/

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)		
		
ASSESSMENT ACTIVITY 3:		
Discusses the impacts that the population projection will have on the city. (Write about your chosen city)		



Icon made by Freepik from www.flaticon.com

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).

Source: Whitehorse, M. (2006). Spaces of sustainability: Geographical perspectives on the sustainable society. London: Routledge, p. 9.

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



Icon made by Freepik from www.flaticon.com

THE THREE PILLARS OF SUSTAINABILITY

Watch the following clip and complete the task below.

https://www.youtube.com/watch?v=7V8oFI4GYMY&t=43s

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

Define environmental			
sustainability?			
Provide examples of what this may look			
like from the clip.			
Define economic			
sustainability?			
Provide examples of what this may look			
like from the clip.			
Define social sustainability?	 	 	
Provide examples of what this may look	 		
like from the clip.			

MALMÖ CASE STUDY

Watch and read the following:

https://youtu.be/6yZYXSsWnsg

https://youtu.be/OXMTAo3CjJE

https://youtu.be/q0NCTHEMI1Q

http://www.pvupscale.org/IMG/pdf/Malmo_case-study_bg.pdf

How is Malmö different to most cities?
Take notes about the sustainable practices, technologies and layout/construction of Malmö.

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-urbansustainability

Take notes on the aspects which make these cities sustainable.
What is interesting about Sydney's sustainable vision? Take notes about what will be implemented.



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 high	light
	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.

PEEL PARAGRAPH

POINT	Topic sentence, main idea, answer question in its most simple form.
EVIDENCE	Proof from a source which extends your point.
EXPLAIN	Elaborate on your evidence. What does the evidence suggest about how your cit plans to change/become sustainable?
LINK	Tie it back to the question.
ACCECCMENT	CONFECTION 4
	QUESTION 4 PEEL paragraphs which –
Explain	real strategies to create economic, social and environmental sustainability in losen city.
1	
_	
2	
_	
3	

NARRATION SCRIPT

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

HOW TO FORM A PROPOSAL

Scaff	old and	d 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. V	/e 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
	secoi	nd 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 re	equired. When services are running our aims will be met.
ASS	ESSME	ENT QUESTION 5
		ose TWO additional strategies for how your chosen city can be made more sustainable ocal communities and future generations.
1		
1		
2		

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



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

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