

Australia's changing places (with Census data)

Lesson Map: <http://esriaustralia.com.au/education/SpatialActivity27>

Engage

Different places

- ? Visit the [ABS website](#). Find the definition between urban and rural. [The ABS identifies urban areas as either 'Major Urban' with more than 100,000 people or 'Other Urban' which can be as little as 1,000 people per urban centre.](#)
- ? Define the process of urbanisation. [Urbanisation is the process where people move from rural or remote areas to urban areas, in search of better opportunities.](#)
- ? Visit the [World Bank](#) website. What percentage of the Australian population live in urban areas? How has the 2016 percentage rate changed from the 1960 percentage rate? [The total percentage of Australian's living in urban areas is 90%. This is an 8% increase from the 1960 rate, 82%.](#)
- ? Why is Australia not 100% urbanised? What are some reasons why Australia might not ever reach 100% urbanisation rate? [Australia is such a vast nation that there are always going to be small towns or villages that do not exceed 999 people. This includes the farming communities that live in rural Australia.](#)

Explore

Location, location, location

- ? Visit the [ABS website](#) and explain what the term LGA means. [LGA stands for Local Government Area. Each LGA has a local governing authority which has responsibility in the area. LGAs can change and therefore the results from the 2011 Census may not match those of 2016 Census.](#)
- Click on the Lesson Map URL above to open the map. In the 'Details' pane, under 'Content', tick the first checkbox to turn on the layer '2016 Total Population (LGA)' Turn off all other layers.
- ? What is the spatial distribution of Australia's population when viewing the LGA map? (The darker red colours have a higher population than the yellow colours).
[The spatial distribution of Australia's population is concentrated around](#)

Download student worksheet [here](#).

Time
30 minutes

Activity

Investigate how Australia's settlement patterns are changing overtime. Designed as an introduction activity.

Learning Outcome

Students will be able to:

- Define key ABS definitions
- Observe the spatial distribution of Australia's population
- Identify some inequalities in Australia's food distribution
- Analyse key areas for population increase

ACARA Curriculum Link

Year 11 Geography: Sustainable Places

[ACHGE039 | ACHGE041 | ACHGE043](#)

Teacher Feedback:

To share your feedback on this, or any Spatial Activity, please contact education@esriaustralia.com.au

the capital cities in coastal areas.

→ Turn off the layer '2016 Total Population (LGA)'. If located in a capital city, turn on '2016 Total Population (SA2)' to see the population density in your area.

→ Turn off layers. Turn on the layer 'Remoteness Index'.

? Visit the [ABS website](#) and find the definition of the Remoteness and how it is calculated. There are five classes of remoteness, which range from:

1. Major Cities of Australia
2. Inner Regional Australia
3. Outer Regional Australia
4. Remote Australia
5. Very Remote Australia

? Based on the Remoteness Index and 2016 LGA Population, where do most Australian citizens live? Most live in Inner Regional Australia as defined by ABS.

Explain

Challenges

→ Tick the checkbox to turn on the layer '2017 Land Use (Catchment)'.

? As the 'Remoteness Index' layer indicated, a large portion of Australia is classed as Very Remote. What are some ways this land is being used? It is being used as nature conservations, managed resource protection, grazing native vegetation or other minimal use.

? What are some challenges that those who live in these remote areas may face? Access to services and facilities, employment, transport and a variety of other challenges.

? Just as remote areas will face challenges, what are some challenges urban areas may face? Cities may face challenges such as: urban sprawl, traffic, housing costs, transport stress and/or pollution.

? One of the major issues for both rural, remote and urban communities is equal access to fresh food. Click on the different food layers (eggs, water, apples, water and a coffee). What areas are the most expensive for food? One of the highest across all items is Karratha (WA), as well as Mildura (VIC).

? What is surprising about the spatial distribution of food costs across all of the items? Is there a real pattern? What might be the reason behind this? Most of the

highest prices occur in remote or rural locations, but there are still high cost items in or near major cities. This is because some places may have a greater access to certain items.

Extend

Areas to focus on

- ☐ Turn off all of the layers. Turn on the layer '2011-2016 Population Decrease'.
- ☐ What areas had the highest amount of population decrease? **Remote and rural areas of Australia, such as inland areas of most states and territories. There was also a decrease in some rural coastal areas.**
- ☐ Turn on the layer '2011 – 2016 Population Growth'. What areas had the highest population growth? **Major capital cities.**
- ☐ What process do we know this as?
Urbanisation.

Note: some of the highest areas of growth are not represented on the map as the SA2 area changed between 2011-2016.

Teacher Tip: Use the population decrease or increase layers as the base layers for your own primary data that you can add to the map using ArcGIS Online for Year 11 reports

Next Steps:

Request a free ArcGIS Online Account for your school:

Australian schools can request a free ArcGIS Online account as part of Esri Australia's Classroom GIS Initiative. A school subscription provides additional map layers, content, features and privacy. Learn more about ArcGIS Online, and apply for your ArcGIS Online School subscription at <http://esriaustralia.com.au/education>

Websites Linked:

1. <http://www.abs.gov.au/websitedbs/D3310114.nsf/home/Frequently+Asked+Questions#Anchor7>
2. <https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=AU&view=map>
3. [http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1270.0.55.003~July%202016~Main%20Features~Local%20Government%20Areas%20\(LGA\)~7](http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1270.0.55.003~July%202016~Main%20Features~Local%20Government%20Areas%20(LGA)~7)
4. <http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/1270.0.55.005Main%20Features15July%202016?opendocument&tabname=Summary&prodno=1270.0.55.005&issue=July%202016&num=&view=>