

# More books, less births

Lesson Map: <http://esriaustralia.com.au/education/SpatialActivity18>

## Engage

### *What is fertility?*

- ? What is fertility? How do we measure it? Why do we measure it?
- For a geographer studying the demographics of a population, fertility is a big deal!
- Fertility is regarded as the number of live births occurring within a population.
- Fertility rate is the number of live births per 1000 women of childbearing age (approximately age 14 to 44).
- Fertility is important to understand so governments can determine factors such as: food, transportation, health care, housing and education.

## Explore

### *What is the estimated average fertility rate for 2015-2020?*

- 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 'Total Fertility.' Turn off all other layers.
- Investigate by clicking on various of countries. The pop-up window will show their ranking from 1950 until 2100.
- ? Which continent has the highest amount of live births per woman? [Africa]
- In the 'contents' window, hover your mouse over the activated map layer. Additional icons will open. Click the 'show table' icon.
- ? In the table, scroll across to the heading '2015-2020' and then 'sort descending.' Scroll back across to find which country had the highest estimated live births for that period. State the amount of live births. [Niger: 7.15]
- ? Sort the 2015 to 2020 column to 'sort ascending.' Which country had the least amount of live births for that period? [Taiwan Province of China: 1.22]

Download student worksheet [here](#).

### Time

15 minutes

### Activity

Investigate the different fertility rates across the world and the reasons behind it.

## Learning Outcome

Students will be able to:

- Define fertility
- Observe the spatial distribution of fertility
- Identify the reasons for high or low fertility
- Explain the relationship between fertility and education

## ACARA Curriculum Link

Year 10 Geography – Unit 2:  
Geographies of human wellbeing

ACHGK076 | ACHGK077 | ACHGK079  
| ACHGS076 | ACHGS077 |  
ACHGS078

Senior secondary Curriculum –  
Geography Unit 4: Managing  
population change (2019 QLD)

## Teacher Feedback:

To share your feedback on this, or any Spatial Activity, please contact [education@esriaustralia.com.au](mailto:education@esriaustralia.com.au)

## Skills

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*Factors related to fertility.*

- ? What are some possible explanations to explain the difference between live birth rates in these countries? [Niger is a less developed country, whereas Taiwan is a developed country]
- ? What factors influence fertility? [A few examples include education, religion, access to health care]

## Extend

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*How does education influence fertility?*

- Tick the checkbox to turn on the layer 'Adult Literacy Rate by country.' Turn off 'Total Fertility' layer for now.
- This layer is colour-coded according to a combined male and female literacy rate. The darker the purple, the higher the countries literacy rate. Note: A literacy rate is the total number of literate person (ability to read and write) in a given population.
- ? Which countries have the lowest literacy rates? [Afghanistan, Niger, Chad, Central African Republic, South Sudan, Ethiopia, Mali, Mauritania, Guinea, Senegal, Sierra Leone, Benin, Côte D'Ivoire]
- ? Tick the checkbox to turn the layer 'Total Fertility' back on. What is the spatial relationship between literacy rates and fertility rates? Why is this? [The areas with low literacy rates, such as Africa, also have low fertility rates. The relationship between education and fertility is that those with a higher literacy rate are more likely to undertake higher education and become part of the workforce instead of bearing children. In some industrialised nations, many women choose to not have children at all. Further, in these developed regions, children are not expected to tend to their parents, i.e. helping earn income on the farm.]

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## Next Steps:

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