



Urban areas and edge cities

from the Esri GeoInquiries™ collection for Human Geography

Audience – Human geography

Time required – 15 minutes

Activity Explore urban areas around the world, including their layout, size, and other factors.

APHG Benchmarks **APHG: 7.D1. Evaluate the built environment and social structure of urban areas**
APHG: 7.A1. Explain factors that initiate & drive urbanization & suburbanization.

Learning Outcomes

- Students will locate urban areas and identify factors of urbanization.
- Students will identify characteristics and examples of edge cities.

Map URL: <http://esriurl.com/humanGeoInquiry15>

? Ask

What characteristics define a city?

- ? Louis Wirth identified a city to have defining characteristics. What might these include? *[Characteristics might include a large population, size, a heterogeneous nature, and a defined boundary.]*
- ? What is the difference between “city” and “urban”? *[A city is identified by businesses, a population, and a cultural landscape. Urban locations include non-rural areas like the city and suburbs.]*
- ? What are some common characteristics of major cities? *[Major cities have downtown areas, many buildings, and highways and transportation networks.]*

↓ Acquire

What are some examples of cities?

- Click the map link above to start the map.
- With the Details button underlined, click the button, Show Contents of Map (Content).
- Click the checkbox to the left of the layer name, USA Major Cities.
- ? What are some major cities in the United States? *[New York, Los Angeles, Chicago, Dallas, and so on.]*
- Zoom in and out to identify and view some of these cities.
- ? What are examples of small cities located in the United States? *[Local answers will vary.]*
- Turn on the layer, World Urban Areas.
- ? Zoom out to a world view. Why is the layer not visible? *[It is set to a visible scale.]*
- ? Select a continent, and zoom to specific urban areas. What are some major world cities? *[Answers will vary but could include Tokyo, London, or Sao Paulo.]*

🔍 Explore

What factors have led to urban growth of cities?

- Zoom to the United States.
- Turn on the layer, Population Density - Counties.
- ? What connections are evident between population distribution and major cities? *[Cities have high populations, while outlying areas have fewer inhabitants.]*
- Turn off the layer, Population Density - Counties.
- Turn off all layers to see the baselayer, World Street Map.
- Zoom to a city of interest.
- ? Why might cities grow at different rates? *[These factors include location, proximity to other cities, and access to transportation.]*
- ? Why are cities often surrounded by other nearby cities? *[Transportation, suburbanization, and new downtown centers can lead to edge cities.]*

more ►

Analyze

How have edge cities changed the physical and cultural landscape?

- Use the search box, above and right of the map. Search for Washington, D.C.
- ? What are some examples of edge cities that have emerged in the area? [*Bethesda, Rockville, Silver Spring, Gaithersburg, and so on.*]
- Zoom in to Washington, D.C., and observe the land use patterns.
- ? What characteristics identify these as edge cities? [*Edge cities have residential areas, businesses, multiple types of transportation, and connections between cities.*]
- ? What is the next stage of growth for these edge cities and surrounding suburbs? [*The next growth stage is an increase in population and sprawl.*]

Act

What is the future for urban growth?

- ? How is urban growth changing cities around the world? [*Countries will have to develop land in order to provide services to growing populations.*]
- ? How have residential and commercial areas changed the urban landscape? [*They have added houses and apartments, restaurants, hotels, education institutions, roads, and leisure activities.*]
- ? How is urban growth changing the areas adjacent to cities? [*It is consuming farmland, developing residential areas, forming edge cities, and creating businesses.*]
- ? How can the Urban Observatory (<http://www.urbanobservatory.org/>) or other applications visualize these concepts? [*They allow users to compare landscapes and identify urban patterns.*]

SEARCH

- In the place name search box, type the city name.
- Click the magnifying glass.
- The map will zoom to the location (you can zoom in and out as needed).

LAYER VISIBILITY

- Make sure that the Details button is underlined, and click the button, Show Contents Of Map (Content).
- To show individual map layers, select the check boxes next to the layer names.
- Hint: If a map layer name is light gray, zoom in or out on the map until the layer name is black. The layer can now be turned on.

Next Steps

DID YOU KNOW? ArcGIS Online is a mapping platform freely available to public, private, and home schools. A school subscription provides additional security, privacy, and content features. Learn more about ArcGIS Online and how to get a school subscription at <http://www.esri.com/schools>.

THEN TRY THIS...

- Use the Calculate Density analysis tool to analyze the distribution of cities in an area of your choice.
- Create a distance buffer to illustrate patterns in the spatial distribution of edge cities.

TEXT REFERENCES

This GIS map has been cross-referenced to material in sections of chapters from these texts.

- *The Human Mosaic* by W. H. Freeman & Co – Chapter 10
- *The Cultural Landscape* by Pearson – Chapter 13
- *Human Geography: People, Place, and Culture* by Wiley Press – Chapter 9