



# Natural resources and regions

from the Esri GeoInquiries™ collection for Upper Elementary

Target audience – Upper Elementary

Time required – 15 minutes

## Activity

This activity observes, compares, and contrasts the natural resources throughout the five regions of the U.S.

## Standards

**C3:D2.Eco.3.3-5.** Identify examples of the variety of resources (human capital, physical capital, and natural resources) that are used to produce goods and services.

**C3:D2.Geo.8.3-5.** Explain how human settlements and movements relate to the locations and use of various natural resources.

**NGSS.ESS3.A.** Energy and fuels are derived from natural sources, and their use affects the environment in multiple ways.

## Learning Outcomes

- Students will compare and contrast the land use and natural resources available in U.S. regions.

Map URL: <http://esriurl.com/fourgeoinquiry15>



## Engage

### What are some U.S. natural resources and land uses?

- ? What are some ways that land in the U.S. is used? *[Farming, manufacturing, and grazing.]*
- Click the map URL link above to start the map.
- With the Details pane visible, click the button, Show Contents Of Map.
- Click the checkbox to the left of the layer name, Natural Resources.
- Click the button, Show Map Legend.
- ? What are some natural resources found in the U.S.? *[Answers may include oil, natural gas, coal, and gold.]*



## Explore

### What jobs do natural resources support?

- Click Bookmarks and select the Southeast region.
- Turn off the layer, Natural Resources.
- ? Based on land use, what are some possible jobs that a person living in this region may have? *[Answers will vary but may include work as a farmer or factory worker.]*
- Click Bookmarks, and click each of the other regions.
- ? What are some possible jobs for people living in each of these regions based on the natural resources available? *[Answers will depend on the region.]*

## Explain

### Which resources are considered renewable and nonrenewable?

- ? What is the definition of renewable resources? Nonrenewable? [*Renewable resources are replaced naturally and can be used again. Nonrenewable resources cannot be readily replaced. When they are gone, there will be none left.*]
- Turn on the Natural Resources layer and turn off the Land Use layer.
- Select the bookmark for the West.
- ? What are some examples of nonrenewable resources? [*Answers will vary but may include oil, natural gas, gold, iron, lead.*]
- Find your region and zoom in to it.
- ? What are the renewable resources in your region? [*Answers will vary but could include items such as fish, fruits, vegetables, and forest products.*]

## Elaborate

### What happens if we do not take care of our natural resources?

- Turn on the Land Use layer and turn off the Natural Resource layer.
- Select the bookmark for the Midwest region.
- ? What is the most common use of the land? [*Farming*]
- ? What would happen if farmers did not alternate between different crops from year to year and planted the same crop each year? [*Nutrients and minerals would be depleted, making it difficult to grow future crops.*]
- ? What are some possible solutions to help avoid this issue? [*Rotate crop types, add nutrients manually, or leave the land fallow (unsown for a period of time in order to restore its fertility).*]

### IDENTIFY A MAP FEATURE

- Click a feature on the map, and a pop-up window will open with information.
- Links and images in the pop-up are often clickable.
- An arrow icon in the upper-right of the window indicates that multiple features have been selected.
- Click the button to scroll through the features.

### TURN A MAP LAYER ON OR OFF

- Make sure that the Details pane is selected, and click Show Contents Of Map.
- 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...

- Explore the story map, *Atlas for a Changing Planet*, at <http://esriurl.com/Geo4111>.
- Compare and contrast available natural resources of your region to others. Analyze how the land use and natural resources that are available affect the economy.

## TEXT REFERENCES

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

- *States and Regions* by Harcourt Brace — Chapter 3
- *Regions of the United States* by Scott Foresman — Chapter 1