



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