Time required – 15 minutes

Map URL: http://esriurl.com/worldGeoInquiry8

**Activity**
Explore the cultural attributes of the Arabian Peninsula and country boundary constructs.

**Social studies standards**
C3:D2.D2.Geo.10.6-8. Analyze the ways in which cultural and environmental characteristics vary among various regions of the world.  
C3:D2.Geo.8.6-8. Analyze how relationships between humans and environments extend or contract spatial patterns of settlement and movement.

**Learning Outcomes**
- Define and describe the Empty Quarter.
- Explain major elements of the Treaty of Jeddah boundary agreement between Saudi Arabia and Yemen.
- Identify physical and cultural characteristics of the Arabian Peninsula that are reflected in the new Saudi–Yemeni border agreement.

**Ask**
Where is the Arabian Peninsula located?
- Click the link above to launch the map.
- With the Details button underlined, click the button, Show Contents.
- On the map, click the Arabian Peninsula outline. Read the pop-up.
- Which countries form borders with the Arabian Peninsula? [Kuwait, Iraq, and Jordan]

**Acquire**
What are the population characteristics of the Arabian Peninsula?
- Check the box to the left of the layer name, Agriculture.
- Click on the layer name to see a legend.
- What is the principal agricultural activity on the peninsula? [Nomadic herding]
- Why is agricultural activity so limited? [Lack of sufficient water for farming]
- Turn off the Agriculture layer, and then turn on the Population Density layer and view its legend.
- What is the overall population density of the Arabian Peninsula? [Most of the Arabian Peninsula has fewer than 25 people per km² and at least half of that area includes fewer than 1 person per km².]
- Turn off the Population Density layer and turn on the Agriculture and Springs layers.
- Speculate about the ways that water is most commonly used at these springs. [One conclusion is that most the springs are used to water livestock.]

**Explore**
What is the Empty Quarter?
- Turn off the layer, Springs. Turn on the layer, Roads 2001; view its legend.
- View the large area with few roads in the south-central part of the peninsula. This is called the Rubʿal-Khali or the Empty Quarter.
- Turn the following layers on and off so that you can observe the characteristics of the Empty Quarter: Springs, Population Density, Agriculture, Temperature, and Annual Precipitation.
- What do you observe about the physical and population characteristics of the Empty Quarter? [It is a desert region with no permanent bodies of water and less than 3 inches of rainfall per year. There is no agricultural activity and it is uninhabited.]
**Analyze**

**What complicated the agreement on the border of Yemen and Saudi Arabia?**

- Turn on the three layers, Yemen Boundary 1, 2, and 3 Click each line and read the text.
- What does the area between the blue and purple lines represent? [It is claimed by both Saudi Arabia and Yemen, and therefore was disputed territory.]
- Turn on the layer, Agriculture; view its legend.
- What is the principal economic activity of the regions in dispute? [Nomadic herding]
- Turn off the layer, Agriculture. Turn on the layer, Population Density. View the legend.
- Describe the population distribution in the disputed territory. [It is mostly uninhabited with the western part of the territory being the only area of higher concentration of people.]

**Act**

**What does the final Saudi–Yemeni Border look like?**

- Zoom to the Yemen bookmark (see the ToolTip below for details).
- Turn on two layers, Cities and Towns and Yemen Final Border.
- Click the border and read the pop-up information.
- Does the final border go through any cities or towns? (You may need to zoom in again.) If so, how many towns? [The boundary passes through fewer than 10 villages but within a mile or two of many more.]
- What are some observations about the boundary created by the Treaty of Jeddah? [Possible answers: New boundary increased Yemen's territory; most of Yemen's new territory is land used by nomadic herdsmen and desert; most of the new territory is uninhabited or very sparsely settled.]

**ZOOM TO A BOOKMARK**

- Click Bookmarks.
- Click a bookmark name to zoom to a map location and scale.

**TURN A MAP LAYER ON AND OFF**

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

- Click the Elevation Tinted Hillshade layer, and then click the More Options button (three dots) and choose Transparency.
- Adjust transparency until you can see the country boundaries.
- Evaluate which countries have mountains and where they are in relation to country borders.

**TEXT REFERENCES**

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

- *World Cultures and Geography* by McDougal Littell
- *My World Geography* by Pearson

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