



The great exchange

from the Esri Geolnquiries™ collection for U.S. History

Target audience – U.S. History learners

Time required – 15 minutes

Activity

Explore the movement and exchange of plants, animals, and diseases from the Old World to the New World and the New World to the Old World.

Social studies Standards

C3: D2.His.1.9-12. Evaluate how historical events and developments were shaped by unique circumstances of time and place as well as broader historical contexts.
C3: D2.His.14.9-12. Analyze multiple and complex causes and effects of events in the past.
C3: D2.His.15.9-12. Distinguish between long-term causes and triggering events in developing a historical argument.

Learning Outcomes

- Students will identify origins of Old World and New World plants, and identify where they are today.
- Students will evaluate the diffusion of plants, animals, and diseases from east to west and west to east through the Great Exchange.

Map URL: <http://esriurl.com/historygeoinquiry15>

? Ask

So, you think the potato originated in Ireland?

- ? Where in the world do you think the potato was first grown? *[Some might say Ireland, or others might say Idaho; answers will vary.]*
- Click the map link above to launch the map.
- With the Details button underlined, click the button, Show Contents of Map (Content).
- Check the box to the left of the layer name, Crop Origins.
- Click the layer's name to display its legend.
- ? In which area of the world did the potato originate? *[It originated in South America.]*
- Turn on the layer, Potato Production Current.
- ? Where are potatoes grown today? *[They are grown on every continent, but particularly in Europe, Asia, and the United States.]*
- ? In which direction on the planet did potato growth move? *[Growth moved from South America to every continent (except Australia, Oceania, and Antarctica), though it focused in Europe and Asia.]*

↓ Acquire

How are potatoes, maize (corn), and bananas distributed today, as compared with their original locations?

- Turn off the layer, Potato Production Current
- Turn on the two layers, Maize Production Current and Banana Production Current.
- ? Where were maize and bananas grown originally, compared with where they are grown today? *[Maize was grown in Central America, and today is grown on every continent (except Australia, Oceania, and Antarctica). Bananas were grown in Southeast Asia and Australia, and today are grown in the southern reaches of the planet, including Latin America, the Caribbean, Africa, Asia, and the Pacific.]*
- ? How do the food origin areas of potatoes, maize, and bananas compare with the current production areas of those plants today? *[They went from smaller discrete areas of the world to a broader distribution of those commodities around the world.]*

Explore

What other crops moved from where they were grown originally?

- Pumpkins, tobacco, pineapples, cacao, grapes, sugar cane, peaches, coffee beans, and many other crops were also transported and subsequently grown in new places on the planet.
- ? If many plants were moved, what other types of items might have moved to another place on Earth? *[Students should think of animals, insects, diseases, and even languages.]*

Analyze

As Europe began to explore and colonize the Americas, what other new things did they exchange?

- Click the Old World New World layer name, and then click the sublayer name to open its legend.
- ? Which hemispheres were the Old World and the New World located in? *[The Old World was in the Eastern Hemisphere, and the New World was in the Western Hemisphere.]*
- ? Where did the initial exchange of plants, animals, and diseases originate? *[Eastern Hemisphere goods traveled to the Western Hemisphere first.]*

Act

What is the importance of the Great Exchange?

- Turn on the Great Exchange layer.
- Click each green ellipse pointing west from the Old World, and then click each orange rectangle pointing east from the New World.
- ? What happened next? *[The plants, animals, and diseases traveled from east to west and west to east and exchanged their locations to many places in the world.]*
- ? How does the Great Exchange affect us today? *[Many nations' foods have evolved to incorporate food stocks from various parts of the world. People and animals from places outside of their origins are still highly susceptible to diseases that originated from other places in the world.]*

RUBBER BAND ZOOM

- On your keyboard, press and hold down Shift.
- Click and drag the mouse button.
- Draw a square around the area to zoom.
- Release Shift and the mouse button.

IDENTIFY

- Click any area on the map.
- A pop-up window opens, displaying information about the area you clicked 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...

- Create a presentation that shows how a plant, animal, or disease of your choice that was part of the Great Exchange has moved around the world.

TEXT REFERENCES

This GIS map has been cross-referenced to material in sections of chapters from the following text.

- *The Americans* by McDougal Littell – Chapter 1