



# Trade and the Black Death

from the Esri Geolnquiries™ collection for World History

Target audience – World history learners

Time required – 15 minutes

## Activity

Understand the diffusion of the Black Plague through the Silk Road trade routes.

## 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 & effects of past events.

## Learning Outcomes

- Students will explore the diffusion of the Black Plague from Asia to Europe.
- Students will explain relationships between the Silk Road and the Black Plague.

**Map URL:** <http://esriurl.com/worldHistoryGeolnquiry12>

## Ask

### How is *Yersinia pestis* (Black Death) transmitted to humans?

- Click the link above to launch the map.
- With the Details button depressed, click the button, Content.
- Click the most southerly black pop-up located in Southeast Asia and read the information provided.
- ? What were some factors that might have influenced the spread of the plague? [*Rodents, fleas, and densely populated areas*]

## Acquire

### Where did the 14th century Black Plague spread?

- Click the remaining four black pop-ups (from north to south) in East Asia. Read the information provided.
- During which time period did the deaths due to the plague occur in those five cities? [*1320–1345*]
- Click the blue “I” Issyk-Kul Lake symbol and read the pop-up. Click the small right arrow to cycle info..
- Click the “M” (Kharkhorum) symbol and read the pop-up.
- ? Which direction were the Mongols and the plague traveling? [*Westward from the Mongol capital area, through the Issyk-Kul Lake area.*]
- Click the “K” symbol for the city of Kaffa (Caffa) and read the pop-up.
- ? What action did Mongols laying siege to Kaffa take to capture the city? [*They flung infested dead bodies over the wall to spread the plague.*]

## Explore

### Where do you predict *Yersinia pestis* would diffuse from Kaffa?

- Turn on the two layers, Maritime Silk Road and the European Shipping Routes.
- Click the two layer names (above) to expand the legends.
- ? How did shipping routes aid in transmitting the plague? [*Infected rats and fleas made way onto ships in contaminated food and supplies. The plague was also transmitted through rat, work animal, and human waste. Ships could efficiently get to other continents as they sailed the seas.*]



## Analyze

### How did *Yersinia pestis* reach Europe?

- Zoom in and click the “C” symbol for the city of Constantinople and read the pop-up.
- Turn on the layer, European Overland Trade Routes.
- Click Bookmarks and choose Europe.
- ? In which direction did *Yersinia pestis* spread from Constantinople? *[First along the shipping routes to trade ports along the Mediterranean Sea and then overland from the ports into the European interior.]*



## Act

### How prevalent was the Black Plague in Europe in the mid-1300s?

- Turn on the Black Death Cities: Europe Animation Across Europe layer.
- Stop the animation and click several of the dots from the Black Death Cities: Europe Animation layer.
- ? What was the progression of the disease? *[From the Mediterranean areas to Western Europe, north to Bavaria and Scandinavia, and then east to Russia]*

### TURN A MAP LAYER ON AND 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.

### USE THE TIME SLIDER

- A time-enabled map layer must be visible.
- Click the lower slider button and stretch it to the end time period that you wish to view.
- Click the Play button (right arrow).
- Click the Configure button (the wrench icon) to change the slider's speed.

## 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...

- Using an ArcGIS Online organizational account for schools, use Analysis tools and make a color-coded map from the dates that cities were affected.
- Use the Buffer tool to buffer European Plague cities and see how near to or far from each other they were.



## TEXT REFERENCES

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

- *World History by Glencoe — Chapter 10*
- *World History by Prentice Hall — Chapter 8*
- *World History: Human Journey by Holt — Chapter 5*