Can Disease Change the World?


Supporting Questions

1. What was the Black Death?
2. How did the Black Death spread so quickly?
3. How did the Black Death affect people in the 14th century?
# 6th Grade Black Death Inquiry

## Can Disease Change the World?

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<tr>
<td>Staging the Question</td>
<td>Discuss an example of a recent outbreak of infectious disease and how public officials responded to the outbreak.</td>
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### Supporting Question 1

**What was the Black Death?**

#### Formative Performance Task

Write a description of the Black Death that includes its symptoms and where outbreaks occurred in Europe and Asia.

#### Featured Sources

**Source A:** Excerpts from *Decameron*
**Source B:** Illustration of the Black Death

### Supporting Question 2

**How did the Black Death spread so quickly?**

#### Formative Performance Task

Construct a diagram illustrating how the Black Death spread.

#### Featured Sources

**Source A:** Plague Ecology visual
**Source B:** Map depicting spread of the Black Death

### Supporting Question 3

**How did the Black Death affect people in the 14th century?**

#### Formative Performance Task

Create an annotated illustration depicting how the Black Death affected different groups of people in the 14th century.

#### Featured Sources

**Source A:** Bubonic plague statistics
**Source B:** Illustration of the persecution of Jews during the Black Death
**Source C:** *Social and Economic Effects of the Plague*

### Summative Performance Task

**ARGUMENT** Can disease change the world? Construct an argument (e.g., detailed outline, poster, essay) that discusses the impact of the Black Death using specific claims and relevant evidence from historical sources while acknowledging competing views that people had about the nature of the Black Death in the 14th century.

### Taking Informed Action

**UNDERSTAND** Find current examples of how we prevent, detect, and minimize the spread of diseases in homes, schools, and communities (e.g., washing hands, vaccinations).

**ASSESS** Think of at least one way we might improve the prevention or control the spread of diseases in homes, schools, and communities.

**ACT** Create a public service announcement to advocate for improved methods of prevention, detection, and control of diseases.
Inquiry Description

This inquiry is framed by the compelling question “Can disease change the world?” Among the many catastrophic global pandemics in history, perhaps none achieved the notoriety of the Black Death. The Black Death was a massive outbreak of the bubonic plague caused by infectious bacteria. Thought by scientists to have been spread by contaminated fleas on rats and/or other rodents, the Black Death quickly decimated entire families and communities. In doing so, the Black Death led more than one observer of the time to ponder whether the apocalypse had begun. The Black Death began and first spread on the Silk Roads through central Asia in the early 14th century, and by mid-century moved via merchant ships into North Africa and Europe, where it would kill nearly one-half of the population. It took almost 150 years for Europe’s population to recover. By investigating the compelling question “Can disease change the world?” students consider the causes, symptoms, and reasons for the rapid geographic expansion of the disease and how this pandemic affected people of the 14th century and beyond. Through their investigation of sources in this inquiry, students should develop an understanding of the consequences of the Black Death and an informed awareness of the importance of preparing for future diseases and possible pandemics.

In addition to the Key Idea listed earlier, this inquiry highlights the following Conceptual Understanding:

- 6.7a The Silk Roads, the Indian Ocean, and the Trans-Saharan routes formed the major Afro-Eurasian trade networks connecting the East and the West. Ideas, people, technologies, products, and diseases moved along these routes.

Structure of the Inquiry

In addressing the compelling question “Can disease change the world?” students work through a series of supporting questions, formative performance tasks, and featured sources in order to construct an argument with evidence and counterevidence from a variety of sources.

Staging the Compelling Question

In this staging task, teachers may begin the inquiry by helping students understand that disease is a part of our everyday modern life and that the implications of the compelling question, “Can disease change the world?” are as well. To accomplish this goal, teachers may engage students in a discussion about a recent outbreak of infectious disease (e.g., SARS, Ebola, MERS) and how public officials responded to the outbreak.
Supporting Question 1

The first supporting question—“What was the Black Death?”—introduces students to the catastrophic pandemic known as the Black Death. The formative performance task calls on students to describe the Black Death by focusing on the symptoms of the disease and the geographic areas most affected by it. Featured Source A is an eyewitness account from 14th-century writer Giovanni Boccaccio about the symptoms of the Black Death. Featured Source B is a painting from 1411 of two patients suffering from the disease.

Supporting Question 2

The second supporting question—“How did the Black Death spread so quickly?”—invites students to examine why the Black Death became so widespread and how it was possible for the mortality rate to be so high. The formative performance task calls on students to construct a diagram depicting how the Black Death spread. Featured Sources A and B are visuals about the spread of the Black Death. The first is a contemporary illustration showing the general pattern of transmission of plague bacteria from natural to human environments; the second is a cartoon-style visual that illustrates the role of fleas and rats in spreading the disease. Featured Source C is a map showing the ways in which the disease spread from Asia to Europe in the 1340s and within Europe after 1348.

Supporting Question 3

The third supporting question—“How did the Black Death affect people in the 14th century?”—asks students to explore how the Black Death changed people’s lives and how those affected by the plague responded to it. The formative performance task calls on students to create an annotated illustration depicting how the Black Death affected different groups of people in the 14th century. The featured sources include a set of graphs illustrating the dramatic decline in population as a result of the Black Death and a painting and accompanying text about the false claim that Jewish people were to blame for the Black Death. The final featured source is a text that shows the effect of the Black Plague on the European economy and feudal society.
Summative Performance Task

At this point in the inquiry, students have examined the causes and symptoms of the Black Death. Students have also examined where, when, and how the disease spread as rapidly as it did and how the people were affected by this catastrophic pandemic. Students should be able to demonstrate the breadth of their understanding and the ability to use evidence from multiple sources by constructing an argument in response to the compelling question “Can disease change the world?” It is important to note that students’ arguments could take a variety of forms, including a detailed outline, poster, or essay.

Students have the opportunity to Take Informed Action by drawing on their knowledge of how pandemics spread and impact society. Students show that they understand by finding current examples of how we prevent, detect, and minimize the spread of diseases in homes, schools, and communities (e.g. washing hands, vaccinations). They can then assess at least one way people might improve the prevention or control the spread of diseases in homes, schools, and communities. And they can act by creating a public service announcement to advocate for improved methods of prevention, detection, and control of diseases.
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<th>Supporting Question 1 A</th>
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<td><strong>Featured Source</strong></td>
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<td><strong>Source A:</strong> Giovanni Boccaccio, novel about the Black Death, <em>Decameron</em> (translated by David Burr, excerpts), 1353</td>
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**Boccaccio on the Plague**

Translated by David Burr, History Department, Virginia Tech, Blacksburg, VA.

*The following is taken from Giovanni Boccaccio, the Decameron, Introduction. Boccaccio lived through the plague and wrote this description shortly thereafter, but he borrowed liberally from an earlier writer who was describing a completely different plague.*

I say, then, that in the year 1348 after the *Son of God's fruitful incarnation* (*birth of Jesus*), into the distinguished city of Florence, that most beautiful of Italian cities, there entered a deadly *pestilence* (*disease*). Whether one believes that it came through the influence of the *heavenly bodies* (*nature*) or that God, justly angered by our *iniquities* (*sins*), sent it for our correction, in any case it had begun several years earlier in the east and killed an *innumerable* (*countless*) mass of people, spreading steadily from place to place and growing as it moved west.

No human wisdom or provision was of any help. Huge amounts of filth were removed from the city by officials charged with that task; sick people were forbidden to enter the city; advice was given on how to stay healthy; *devout* (*religious*) persons made humble *supplication* (*prayers*) to God not once but many times, ... but in the spring of that year the sad effects of the *pestilence* (*disease*) nonetheless began to appear in an almost miraculous manner. It was not as it had been in the east, where nosebleeds had signaled that death was inevitable. Here the sickness began in both men and women with swelling in the groin and armpits. The lumps varied in size, some reaching the size of an ordinary apple and others that of an egg, and the people commonly called them gavoccioli. Having begun in these two parts of the body, the gavoccioli soon began to appear at random all over the body. ... with black or *livid* (*bruised*) spots appearing on the arms, the thighs, everywhere. Sometimes they were large and well spaced, other times small and numerous. These were a certain sign of *impending* (*soon to arrive*) death, but so was the swelling.

Q1 When did the plague begin in the city of Florence Italy? Where did it begin?

Q2 What are some of the symptoms that the plague caused?

No doctor’s advice, no medicine seemed to be of any help. Either the disease was incurable or the doctors simply didn’t know how to cure it. Many tried, though. The number of doctors became huge as a multitude of people, male and female, with no medical training whatsoever took their place alongside those who were properly educated. But no one knew the cause of the *pestilence* (*disease*) and thus no one could do much about curing it, so not only were few people healed but most of them died by the third day ... Most of them died without any fever or other symptoms.

This *pestilence* was so powerful that it spread from the ill to the healthy like fire ... It was so bad that it could be communicated not only through speaking or associating with the sick, but even by touching their clothing or anything else they had touched. ... Such experiences gave birth to a variety of fears, ... among the living, and the cruel strategy they pursued was to avoid, even flee the sick and their belongings. They thought that by doing so they could stay healthy themselves.

Q3 What medical treatments helped with the plague?
Q4 How does the author believe the disease spread?

... Others were of the opposite opinion. They believed that drinking a good deal, enjoying themselves, going about singing and having fun, satisfying all their appetites as much as they could, laughing and joking was sure medicine for any illness. ... they spent day and night moving from one tavern to the next, drinking ... engaging only in those activities that gave them pleasure. ... people had abandoned their possessions ... and most of the houses had become common property with complete strangers making use of whatever homes they arrived at as if they owned them. ...

As our city sunk into this affliction (illness) and misery the reverend authority of the law, both divine and human, sunk with it and practically disappeared, for those who were supposed to be its ministers and executors (leaders) were, like other people, either dead, sick or so taken up with the needs of their own families that they could not perform their offices. That left everyone else free to make his or her own arrangements.

... instead of shutting themselves in, they went about carrying flowers, fragrant herbs or various spices which they often held to their noses, assuming that the best thing for the brain was to comfort it with such odors, since the air was filled with the stench of dead bodies and illness and medicine.

Q5 How did people live their lives as the plague spread?

Q6 Why were the priests and political leaders unable to get people to obey the laws?

Some were of a crueler opinion, though perhaps a safer one. They said there was no better medicine against the plague than to escape from it. Moved by this argument and caring from nothing except themselves, a large number of men and women abandoned their city, houses, families and possessions in order to go elsewhere ...

... And, having given an example of abandonment to others while they were healthy, when they themselves fell sick they were in turn left abandoned by all. And we will pass over the fact that one citizen avoided another, no neighbor took care of another, and family members rarely if ever visited one another, in fact they stayed far apart. This tribulation (great trouble/suffering) struck such fear in the hearts of men and women that one brother abandoned another, uncles abandoned nephews, sisters abandoned brothers, often wives abandoned their husbands, and (a greater thing and barely believable) fathers and mothers abandoned their children, as if they were not even theirs.

The countless number of people who fell sick could look for help only to the charity of friends (and there were few of them) or to the avarice (greed) of servants, who received huge salaries without being required to do much and yet were still hard to find. They tended to be men or women with little intelligence or training who were good for little else except bringing the sick person whatever they requested or watching over them as they died. They often lost their own lives and profits in the process.

Q7 How did neighbors and family members treat each other as the plague spread?

The poor and even the middling classes faced an even grimmer prospect. Most of them stayed in their own homes and neighborhoods, either because they hoped they would be safe there or because they could afford to do no other. They fell sick by the thousands every day, and having neither servants nor anyone else to care for them they almost always died. Many of them died in the street either during the day or by night, while those who died in their homes were noticed by their neighbors only when the smell of their decomposing bodies brought them to public attention.
There were dead bodies all over, and all were treated in pretty much the same manner by their neighbors ... They would drag the dead bodies out of their homes (either themselves or with the aid of porters, when they could get them) and left them in front of their doors. In the morning great numbers of them could be seen by any passerby. At that time they were laid out and carried away ... Sometimes it carried two or three at a time, and there were occasions when a husband and wife, two or three brothers, or a father and son were carried off together. ... so that the priests, who thought they were on their way to bury one person, eventually found that they had six, eight or even more.

Nor were these dead honored with tears, lights or companions. Things sunk to the level that people were disposed of much as we would now dispose of a dead goat. ... The amount of holy ground available for burials was insufficient for the huge quantity of corpses arriving at the church every day and even every hour, ... so when all individual places in a churchyard was taken they dug huge trenches and put people in them by the hundreds like merchandise in the hold of a ship, then covered them over with a little dirt, until the ditch was filled to the top.

Q8 What happened to the corpses which died from the plague? What were burials like? How did society treat the deceased?

But I shall spare you a detailed description of the miseries visited upon us and simply mention that the ill winds blowing through our city did not spare the surrounding countryside. There, to say nothing of the towns (which were like smaller versions of the city), throughout the villages and fields the poor, miserable peasants and their families, who lacked the care of doctors or the aid of servants, died more like beasts than humans, day and night, on the roads and in their fields, And thus like the city-dwellers they became loose in their behavior and stopped taking care of their possessions and occupations, and all of them, once they began to anticipate their deaths, stopped caring about what they might do in the future with their beasts and lands and simply concentrated on consuming what they had. Thus their cattle, donkeys, sheep, goats, pigs, chickens and even their dogs, man's best friends, were driven off into the fields where the wheat stood abandoned, not merely unharvested but not even cut. These animals were allowed to roam where they pleased, and many, like rational beings, returned home each night after eating well during the day, without being encouraged to do so by a shepherd.

Q9 What was life like on the manors for the serfs?

Enough about the countryside. Returning to the city, what more can be said except that the cruelty of heaven (and perhaps in part of humankind as well) was such that between March and July, thanks to the force of the plague and the fear that led the healthy to abandon the sick, more than one hundred thousand people died within the walls of Florence. Before the deaths began, who would have imagined the city even held so many people? Oh, how many great palazzo (palaces), how many lovely houses, how many noble dwellings once full of families, of lords and ladies, were emptied down to the lowest servant? .... How many valiant men, lovely ladies and handsome youths whom even Galen, Hippocrates and Aesculapius would have judged to be in perfect health, dined with their family, companions and friends in the morning and then in the evening with their ancestors in the other world?

Q10 What was the city of Florence like after the plague arrived?
### SOURCE 1B for Supporting Question

| Featured Source | Source B: Rudolf von Ems, illustration of the Black Death, “The Black Death-from the 10 Plagues of Egypt,” 1411 |

Plague Ecology in the United States

**Plague in Nature**
Plague occurs naturally in the western U.S., especially in the semi-arid grasslands and scrub woodlands of the southwestern states of Arizona, Colorado, New Mexico and Utah.

**Plague in Humans**
Occasionally, infections among rodents increase dramatically, causing an outbreak, or epizootic. During plague epizootics, many rodents die, causing hungry fleas to seek other sources of blood. Studies suggest that epizootics in the southwestern U.S. are more likely during cooler summers that follow wet winters.

The plague bacterium (Yersina pestis) is transmitted by fleas and cycles naturally among wild rodents, including rock squirrels, ground squirrels, prairie dogs and wood rats.

Humans and domestic animals that are bitten by fleas from dead animals are at risk for contracting plague, especially during an epizootic. Cats usually become very ill from plague and can directly infect humans when they cough infectious droplets into the air. Dogs are less likely to be ill, but they can still bring plague-infected fleas into the home. In addition to flea bites, people can be exposed while handling skins or flesh of infected animals.

SOURCE B for Supporting Question 2 (USE BOTH MAPS)

**Featured Source**

**Source B:** Maps depicting the spread of the Black Death, 2015

Created for the New York K-12 Social Studies Toolkit by Agate Publishing.
Interactive Map

Spread of the Black Death

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INQUIRY DESIGN MODEL™

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### SOURCE A1 for Supporting Question 3 A

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<td><strong>Source A:</strong> Data bank: Bubonic plague statistics</td>
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PLEASE NOTE the graph has a mistake listing the population as 70-90-80 million

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**Graphic 1:** William L. Langer chart depicting the population of Europe before, during, and after the Black Death, "The Black Death," *Scientific American*, February 1, 1964.

Recovery of European population following the plagues of 1347 was only two hundred years—an insignificant moment in the evolutionary time scale. (After Langer 1964; author)

William L. Langer "The Black Death" *Scientific American*, February 1, 1964. Reproduced with permission. Copyright (C) 1964 Scientific American, Inc. All rights reserved.
SOURCE A2 Supporting Question 3

Graphic 2: Chart depicting the population of selected European countries before, during, and after the Black Death, 2015.

SOURCE B for Supporting Question 3

Source A: Hartmann Schedel, illustration of the persecution of Jews during the Black Death, The Nuremberg Chronicle, 1493

NOTE: In the Middle Ages, people had no knowledge of germs, and most rarely washed their hands or bathed. In cities they were often cramped in close quarters. However, Jews were often forced to live on the outskirts of town. Their religion required exceptional cleanliness. This requirement meant that they got sick far less frequently than their non-Jewish peers. Many townsfolk then assumed that Jews were poisoning their wells. They began to destroy Jewish communities and murder thousands of Jewish people during plague outbreaks.
**SOURCE C for Supporting Question 3**


*NOTE: This text is modified from the original.*

The plague had many effects. People abandoned their friends and family. They even fled cities and shut themselves off from the world. Some people stopped working. So many people died, they even stopped having funerals. Some fought the plague with prayer and by living a more religious life. However, many priests died and prayers went unanswered. Overall, people’s faith in religion decreased during the Black Death.

The economy was affected as well. Inflation rose and productivity declined. It was difficult (and dangerous) to engage in trade and to produce goods. That caused the price of goods to rise. There were not enough replacement workers to take over from workers who died. Serfs were no longer tied to one master. A serf who left the land would be instantly hired by another lord. The lords had to make changes in order to keep their estates. Because of the lack of workers, wages (what people earned) actually went up. In general, wages outpaced prices and the standard of living was increased.

As the feudal system began to crumble, new distinctions among people emerged. The fashions of the nobility became more extravagant in order to emphasize their social standing. The peasants were more empowered. They even began to revolt when the nobles attempted to resist the changes brought about by the Black Death. In 1358, the peasantry of northern France rioted. From 1378 to 1381, a series of rebellions challenged the feudal system. The social and economic structure of Europe was drastically changed as a result of the Black Death.

From Decameron Web, Department of Italian Studies, Brown University, Virtual Humanities Lab. Used with permission. http://www.brown.edu/Departments/Italian_Studies/dweb/plague/effects/social.php