

History Making Productions Presents:

Fever: 1793

Teacher Materials:

Lesson Plan and Answer Key

- Learning through Media -

Contents:

- Intro to our Materials (page 1)
- Fever: 1793 Lesson Plan (page 2)
- Yellow Fever Vocabulary (page 8)
- Note Sheet Activity. Teacher's Key (page 9)
- Primary Sources Activity. Teacher's Key (page 10)
- "A Virtual Tour" Webisode Activity. Teacher's Key (page 16)
- "Anatomy of an Epidemic" Webisode Activity. Teacher's Key (page 19)
- "Benjamin Rush" Webisode Activity. Teacher's Key (page 21)
- "Burying the Dead" Webisode Activity. Teacher's Key (page 23)
- "Doctors and Cures" Webisode Activity. Teacher's Key (page 25)
- "Healthy City" Webisode Activity. Teacher's Key (page 27)
- "Water Works" Webisode Activity. Teacher's Key (page 29)

HISTORY MAKING
PRODUCTIONS

INTRO to our Materials

We here at **History Making Productions** hope that the *Philadelphia: The Great Experiment* series can enrich your classroom teaching in a way that is exciting for your students and not too time-consuming for you. Here's how it works.

For each 25-minute episode you will find:

BEFORE

Attention grabbing "hooks" to stimulate student interest

Images and/or documents from the film along with suggested discussion questions to prepare students to view the episode

Vocabulary lists to teach unfamiliar terms

Essential questions to help you frame the lesson

DURING

Note-taking sheets to keep your students focused as they view the episode

Suggested stopping points to maximize student interest and understanding

AFTER

Follow-up lessons based on content from the episode

Class activities based on the webisodes that accompany each episode, along with webisode worksheets that require information gathering, exploration of primary sources, and critical analysis

Lessons based on primary sources relevant to the episode

Suggestions for topics that can be explored more fully using our Shortcuts, brief interviews with experts that are available on the historyofphilly.com website.

List of relevant Common Core Standards

A set of five quiz questions based on the note taking sheet.

Fever: 1793 - Lesson Plan

BEFORE

(Preparing for and showing the episode should take approximately one 50 minute class period.)

To stimulate student interest, show the **introductory PowerPoint** or read the following words in a dramatic voice as if in a movie preview:

"Imagine a scenario in which people begin to mysteriously get ill and drop dead around you—after turning a hideous shade and bleeding from their nose, gums, ears and places we can't mention. Imagine that half the people in your community flee to escape this mysterious, deadly disease. Even the President of the United States, the Congress, and the state government have run away. Those who don't leave are faced with a mounting death toll and no idea how to stop it. By the time the dying stops as mysteriously as it began, one in ten members of your community have perished—friends, family, neighbors—one in ten have gone to their grave and no one can explain why.

Sound like a horror film, the plot of a new Stephen King book, or the worst nightmare one could imagine?

This really happened. It happened in 1793. And it happened in Philadelphia."

Work before watching:

Using the **introductory PowerPoint**, have students look at the following images of late 18th century Philadelphia. What observations and predictions can they make about the city during this period?

Words before watching:

These are terms that are used in the episode and on the note sheet. It will be helpful to review any unfamiliar terms with students or to distribute the **vocabulary list** to students.

- Microcosm—a small, representative system that is similar to a larger system
- Catalyst—something that provokes or speeds significant change or action
- Saint Domingue—a French colony in the Caribbean that prospered based on sugar plantations that used slave labor. A revolt by the enslaved that began in 1791 led to the creation of the independent nation of Haiti in 1804.
- Cargo—goods or merchandise carried in a ship, airplane, or vehicle
- Emanate—to come out from a source

Continued, Fever: 1793 - Lesson Plan

- Privy—a toilet located in a small shed outside a house or other building; outhouse
- Reformer—a person who seeks to change things for the better
- Wharf—a place where ships can unload cargo
- Refugee—a person who flees to a foreign country to escape danger
- Palliative—something that relieves the symptoms of a disease without curing it
- Bloodletting—the withdrawal of small quantities of blood from a patient to cure or prevent illness and disease.

(For more information:

<http://www.pbs.org/wnet/redgold/basics/bloodlettinghistory.html>)

Wondering before watching

These are the essential questions that permeate the episode and all supplementary materials. You may choose to present them before and/or after watching.

- What did the Yellow Fever epidemic reveal about race relations in late 18th century Philadelphia?
- What did the Yellow Fever epidemic reveal about late 18th century knowledge of science and medicine?
- How did Yellow Fever change Philadelphia?

DURING

Work while watching:

Students will fill out a *note-taking sheet*. The top of the sheet has general information that, once filled out, will provide an outline of the episode. For the bottom, divide class into five even-sized groups. As students watch the episode, they should take notes on the actions of one of five key figures in the Yellow Fever crisis.

Pause while watching:

At 14:38, have students discuss Benjamin Rush's request to Richard Allen. Why does he want African Americans to help? What does he want them to do? Is this a good idea for the black community?

You may want to do the *primary source activity* at 22:13

AFTER

(Approximately one class period)

Discussion after watching

- How accurate were the predictions made based on the images viewed before watching the episode?
- Did the black community make a good choice when they decided to assist Yellow Fever victims?
- The episode begins with a 1694 quotation from William Penn: "My soul prays to God for thee, Philadelphia, that thou mayest stand in thy day of trial." Did



Continued, Fever: 1793 - Lesson Plan

Philadelphians "stand" through the "trial" of Yellow Fever that came a century after Penn issued his prayer?

- Refer to essential questions

Activity after watching—cooperative option

Put students into heterogeneous groups in which each student has taken notes on a different key figure. *You may want them to compare their answers on the top part of the sheet if you have not already gone over answers in class.* Then have them discuss which of the five figures should be considered the hero/heroine of the Yellow Fever epidemic of 1793. Each group should then share their answer (and reasoning) with the class. (If time allows, you may prefer to first have them meet in homogeneous groups to have them share the information they gathered about their key figure.)

Activity after watching—competitive option

Put students into homogeneous groups in which each student has taken notes on the same key figure. *You may want them to compare their answers on the top part of the sheet if you have not already gone over answers in class.* Have them come up with an argument or series of arguments to persuade the class that their key figure should be considered the hero/heroine of the Yellow Fever epidemic of 1793. You may want them to present their argument(s) in the form of a poster, poem, rap, etc. Once each group presents, have students vote on who made the most convincing case.

(Approximately one class period)

Activity after watching—webisodes

Put students in small groups to view one of six webisodes. For each webisode, there is a worksheet to guide their viewing. Then have them prepare brief presentations for the class sharing what they learned. For example, have them:

- tell how the webisode helped them to further answer the essential questions
- share three key ideas from the webisode
- present one or two primary sources from the webisode and explain their significance
- show a short clip (1 minute or less) to the class that they think the class will enjoy.

(Approximately one class period)

Activity after watching—primary sources

Distribute and have students read and answer questions about an **excerpt** from Matthew Carey's *A Short Account of the Malignant Fever*.

Then have students work in pairs or small groups to read one of **five excerpts** from Richard Allen and Absalom Jones' *A Narrative of the Proceedings of the Black People, during*

Continued, Fever: 1793 - Lesson Plan

the Late Awful Calamity in Philadelphia, in the Year 1793: And a Refutation of some Censures, Thrown upon Them in Some Late Publications. Have students share what they found in the excerpts and have a class discussion about which excerpt provides the strongest refutation to Carey's accusations.

(Varied depending on goals, assignments)

Activity after watching—shortcuts

If you and your students are particularly intrigued with Yellow Fever, you may want to have them delve even deeper into the subject matter. You can use the "shortcuts" to get information from the experts on any of the following topics:

Public health

- A Green Country Town with Elizabeth Milroy
- A Healthy Philadelphia with Elizabeth Milroy
- Penn's Open Spaces with Elizabeth Milroy
- Importance of Clean Water with Elizabeth Milroy
- Disease Among the Poor with Kaye Whitehead

Early Philadelphia history

- A New Capital with Steven Conn
- Crossing the Appalachians with Alan Guelzo
- Losing the Second Bank of the United States with Alan Guelzo
- Striving to Be the Capital with Alan Guelzo
- Trade and Yellow Fever with Richard Newman
- The City in the Atlantic World with Richard Newman
- Street Level View of the 1790s with Randall Miller
- Steven Girard with Randall Miller

Philadelphia's free black community

- Matthew Carey's accusation with Richard Newman
- Rush and Allen's Partnership with Richard Newman
- Absalom Jones with Richard Newman
- Sarah Bass' Heroism with Richard Newman
- African American Institutions with Steven Conn
- Richard Allen's Determination with Reverend Mark Tyler
- Sarah Bass' Faith in Action with Reverend Mark Tyler
- Free Blacks Losing Ground with Reverend Mark Tyler
- Allen Pushing the Boundaries with Reverend Mark Tyler
- Allen Pushing the Boundaries with Reverend Mark Tyler
- Seaport Melting Pot with Erica Dunbar

Continued, Fever: 1793 - Lesson Plan

- James Forten with Erica Dunbar
- Sarah Bass with Erica Dunbar
- Rush and Richard Allen with Erica Dunbar
- African American Volunteers with Randall Miller

Origins and treatment of yellow fever

- Origins of Yellow Fever with Helen Koenig
- Yellow Color in Yellow Fever with Helen Koenig
- Yellow Fever Virus with Helen Koenig
- Yellow Fever Symptoms with Helen Koenig
- Yellow Fever Treatment with Helen Koenig
- Yellow Fever Disease Cycle with Helen Koenig
- No Cure for Yellow Fever with Helen Koenig
- Yellow Fever and Ebola with Helen Koenig
- Luck in Surviving Yellow Fever with Helen Koenig
- Upside of Bloodletting with Richard Newman
- Understanding Disease Therapy with Katherine Arner
- Growing interest in Yellow Fever with John Hopkins

Religion in late 18th Century Philadelphia

- Rise and Fall of Deism with Allen Guelzo
- Grave of David Franks with John Hopkins
- Anne Parrish with Steven Conn

Key Ideas and Details

Grade 6-8

- Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
- Identify key concepts in a text's description of a process related to history/social studies(e.g., how a bill becomes law, how interests rates are raised or lowered).

Grade 9-10

- Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text
- Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.

Grade 11-12

- Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationship among the key details and ideas
- Evaluate various explanations for actions or events and determine which explanation best accords with the textual evidence, acknowledging where the text leaves matters uncertain

Craft and Structure

Grade 6-8

- Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language inclusion or avoidance of particular facts).

Grade 9-10

- Analyze how a text uses structure to emphasize key points or advance an explanation or analysis

Grade 11-12

- Evaluate authors' differing points of view on the same historical event or issue by assessing the author's claims, reasoning, and evidence.

Integration of Knowledge and Ideas

Grade 6-8

- Integrate visual information (e.g. in charts, graphs, photographs, videos, or maps) with other information in print and digital texts)
- Distinguish among fact, opinion, and reasoned judgment in a text.
- Analyze the relationship between a primary and secondary source on the same topic.

Grade 9-10

- Assess the extent to which the reasoning and evidence in a text support the author's claims.
- Compare and contrast treatments of the same topic in several primary and secondary sources

Grade 11-12

- Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g. visually, quantitatively, as well as in words) in order to address a question or solve a problem
- Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information
- Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an event, noting discrepancies among sources.



Yellow Fever Vocabulary

- Microcosm—a small, representative system that is similar to a larger system
- Catalyst—something that that provokes or speeds significant change or action
- Saint Domingue—a French colony in the Caribbean that prospered based on sugar plantations that used slave labor. A revolt by the enslaved that began in 1791 led to the creation of the independent nation of Haiti in 1804.
- Cargo—goods or merchandise carried in a ship, airplane, or vehicle
- Emanate—to come out from a source
- Privy—a toilet located in a small shed outside a house or other building; outhouse
- Reformer—a person who seeks to change things for the better
- Wharf—a place where ships can unload cargo
- Refugee—a person who flees to a foreign country to escape danger
- Palliative—something that relieves the symptoms of a disease without curing it
- Bloodletting—the withdrawal of small quantities of blood from a patient to cure or prevent illness and disease.



Fever: 1793—The Basics: Note Sheet

Fill this in as you watch. Sentences in *italics* are direct quotations from the episode.

1. How is Philadelphia a microcosm of the nation?

It's a place full of promise and possibility.

2. What is the catalyst that is creating opportunity for Philadelphians?

The port of Philadelphia

3. Ships owned by Stephen Girard and other merchants bring more than **1,200** French and **600** of their slaves to Philadelphia.

4. One of the theories is that Yellow Fever is coming off **the boats**. Was it **people**? Was it particular **cargos**?

5. There is another theory: that the disease is emanating from streets **foul** with refuse and wells contaminated by nearby **outhouses**.

6. It's called Yellow Fever because of the yellow color that occurs in the **skin** and the **eyes** because of a product called bilirubin that builds up under the skin. Bilirubin is usually made by the **liver** and emptied into the small intestine to aid with **digestion**. But when the liver is failing, then this function can no longer occur and the bilirubin goes into the **bloodstream** as well.

7. Currie and a group of French physicians advocate a palliative regimen which means **bed rest**, mild **diet**, tea, **wine**; things to strengthen the body. Rush believes in **aggressive** intervention (things like purging and bloodletting)

8. One in **10** Philadelphians died in the epidemic.

9. Reports accuse black nurses of **stealing** and price gouging.

10. How does Richard Allen respond to the accusations?

He wrote his own account-corrected the charges and detailed the heroic efforts of people. This refutation becomes the first copy written book by an African American.

11. What steps does Philadelphia take to respond to the Yellow Fever crisis?

A board of public health is established. The college of Physicians expands the role and scope of medical practice. The quarantine hospital, the Lazarreto, is moved further upstream. They develop the first municipal water system in the New World.

Fever: 1793—Key figure

Use this space to take notes on the actions of (circle one)

Richard Allen

Sarah Bass

Stephen Girard Ann Parrish

Benjamin Rush

Fever: 1793 - Primary Sources

Excerpt from *A Short Account of the Malignant Fever, lately prevalent in Philadelphia: with a statement of the proceedings that took place on the subject in different parts of the United States* by Matthew Carey.

When the yellow fever prevailed in South Carolina, the negroes, according to that accurate observer, Dr. Lining, were wholly free from it. "There is something very singular in the constitution of the negroes," says he, "which renders them not liable to this fever; for though many of them were as much exposed as the nurses to this infection, yet I never knew one instance of this fever among them' though they are equally subject with the white people to the bilious fever." The same idea prevailed for a considerable time in Philadelphia; but it was erroneous (*wrong*). They did not escape the disorder; however, there were scarcely any of them seized at first, and the number that were finally affected, was not great; and it is asserted, by an eminent doctor, "it yielded to the power of medicine in them more easily than in the whites." The error that prevailed on this subject had a salutary (*helpful*) effect; for, at an early period of the disorder, few white nurses could be procured (*obtained*); and, had the negroes been equally terrified, the sufferings of the sick, great as they actually were, would have been exceedingly aggravated. At the period alluded (*referred*) to, the elders of the African church met, and offered their assistance to the Mayor, to procure nurses for the sick, and aid in burying the dead. Their offers were accepted; and Absalom Jones, Richard Allen, and William undertook the management of these two several services. The great demand for nurses, afforded an opportunity for imposition, which was eagerly seized by some of those who acted in that capacity, both coloured and white. They extorted (*extracted by force*) two, three, four, and even five dollars a night for such attendance, as would have been well paid for, by a single dollar. Some of them were even detected in plundering the houses of the sick.

On examining the books of the hospital at Bushhill, it appears, that there were nearly twenty coloured people received there, of whom about three-fourths died.

1. Although Carey asserts that black people could develop yellow fever, why does he think that they can recover from the disease more easily than white people?

Carey believed that fewer of them seem to get it, they don't contract it as quickly, and they respond better to medicine.

2. Of what two things does Carey accuse the "coloured and white" nurses of doing?

Carey accused them of forcing people to pay much higher rates than in normal circumstances (price gouging) and of stealing from their patients' homes.

Continued, Fever: 1793 - Primary Sources

A Narrative of the Proceedings of the Black People, during the Late Awful Calamity in Philadelphia, in the Year 1793: And a Refutation of some Censures, Thrown upon Them in Some Late Publications by Richard Allen and Absalom Jones

Excerpt I

We feel ourselves sensibly aggrieved by the censorious epithets of many, who did not render the least assistance in the time of necessity, yet are liberal of their censure of us, for the prices paid for our services, when no one knew how to make a proposal to any one they wanted to assist them. At first we made no charge, but let it to those we served in removing their dead, to give what they thought fit—we set no price, until the reward was fixed by those we had served. After paying the people we had to assist us, our compensation is much less than many will believe.

We do assure the public, that *all* the money we have received, for burying, and for coffins which we ourselves purchased and procured, has not destroyed the expense of wages which we had to pay to those whom we employed to assist us. The following statement is accurately made:

CASH RECEIVED.

The whole amount of cash we received for burying the dead, and for burying beds, is, - -
- - £233 10 4

CASH PAID.

For coffins, for which we have received nothing - £33 0 0

For the hire of five men, 3 of them 70 days each, and the other two, 63 days each, at
22/6 per day, - - - 378 0 0

411 0 0

Depts due us, for which we expect but little, - £110 0 0

From the statement, for the truth of which we solemnly vouch, it is evident, and we sensibly feel the operation of the fact, that we are out of pocket, - - - - £177 9 8

What are the major points made by Jones and Allen in the excerpt above to refute accusations against African Americans who helped out during the yellow fever epidemic?

They had to pay the people helping them to remove and bury the dead, and they also purchased coffins. Rather than making a profit, they actually lost money by helping during the yellow fever epidemic.

Continued, Fever: 1793 - Primary Sources

A Narrative of the Proceedings of the Black People, during the Late Awful Calamity in Philadelphia, in the Year 1793: And a Refutation of some Censures, Thrown upon Them in Some Late Publications by Richard Allen and Absalom Jones

Excerpt 2

We feel ourselves hurt most by a partial, censorious paragraph, in Mr. Carey's second edition, of his account of the sickness, &c. in Philadelphia; pages 76 and 77, where he asperses the blacks alone, for having taken the advantage of the distressed situation of the people. That some extravagant prices were paid, we admit; but how came they to be demanded? The reason is plain. It was with difficulty persons could be had to supply the wants of the sick, as nurses;--applications became more and more numerous, the consequence was, when we procured them at six dollars per week, and called upon them to go where they were wanted, we found they were gone elsewhere; here was a disappointment; upon enquiring the cause, we found, they had been allured away by others who offered greater wages, until they got from two to four dollars per day. We had no restraint upon the people. It was natural for people in low circumstances to accept a voluntary, bounteous reward; especially under the loathsomeness of many of the sick, when nature shuddered at the thoughts of the infection, and the talk assigned was aggravated by lunacy, and being left much alone with them.

What are the major points made by Jones and Allen in the excerpt above to refute accusations against African Americans who helped out during the yellow fever epidemic?

Carey accused the black nurses of charging high prices, but actually it was the victims and their families who were offering large sums of money because there were not enough nurses to help all the sick. Jones and Allen think that it should not be surprising that poor people would accept these offers of higher pay for their work, especially since the sick were in such terrible physical and mental condition.

Continued, Fever: 1793 - Primary Sources

A Narrative of the Proceedings of the Black People, during the Late Awful Calamity in Philadelphia, in the Year 1793: And a Refutation of some Censures, Thrown upon Them in Some Late Publications by Richard Allen and Absalom Jones

Excerpt 3

We wish not to offend, but when an unprovoked attempt is made, to make us blacker than we are, it becomes less necessary to be over cautious on that account; therefore we shall take the liberty to tell of the conduct of some of the whites.

We know, six pounds was demanded by, and paid, to a white woman, for putting a corpse into a coffin; and forty dollars was demanded, and paid, to four white men, for bringing it down the stairs.

Mr. and Mrs. Taylor both died in one night; a white woman had the care of them; after they were dead she called on Jacob Servoss, esq. for her pay, demanding six pounds for laying them out; upon seeing a bundle with her, he suspected she had pilfered; on searching her, Mr. Taylor's buckles were found in her pocket, with other things.

An elderly lady, Mrs. Malony, was given into the care of a white woman, she died, we were called to remove the corpse, when we came the woman was laying so drunk that she did not know what we were doing, but we know she had one of Mrs. Malony's rings on her finger, and another in her pocket.

What are the major points made by Jones and Allen in the excerpt above to refute accusations against African Americans who helped out during the yellow fever epidemic?

White nurses did some of the things of which the blacks are accused. They charged large amounts of money and stole from the victims. Specific examples of this are described in the excerpt.

Continued, Fever: 1793 - Primary Sources

A Narrative of the Proceedings of the Black People, during the Late Awful Calamity in Philadelphia, in the Year 1793: And a Refutation of some Censures, Thrown upon Them in Some Late Publications by Richard Allen and Absalom Jones

Excerpt 4

We can assure the public, there were as many white as black people, detected in pilfering, although the number of the latter, employed as nurses, was twenty times as great as the former, and that there is, in our opinion, as great a proportion of white, as of black, inclined to such practices. It is rather to be admired, that so few instances of pilfering and robbery happened, considering the great opportunities there were for such things: we do not know of more than five black people, suspected of any thing clandestine, out of the great number employed; the people were glad to get any person to assist them—a black was preferred, because it was supposed, they were not so likely to take the disorder, the most worthless were acceptable, so that it would have been no cause of wonder, if twenty causes of complaint occurred, for one that hath.

What are the major points made by Jones and Allen in the excerpt above to refute accusations against African Americans who helped out during the yellow fever epidemic?

There were many more black nurses than white nurses, and they believe that as great a proportion of white nurses stole from the victims as blacks. They point out that it is surprising that there wasn't even more stealing since there were so many opportunities to do so.

Continued, Fever: 1793 - Primary Sources

A Narrative of the Proceedings of the Black People, during the Late Awful Calamity in Philadelphia, in the Year 1793: And a Refutation of some Censures, Thrown upon Them in Some Late Publications by Richard Allen and Absalom Jones

Excerpt 5

It has been alleged, that many of the sick, were neglected by the nurses; we do not wonder at it, considering their situation, in many instances, up night and day, without any one to relieve them, worn down with fatigue, and want of sleep, they could not in many cases, render that assistance, which was needful: where we visited, the causes of complaint on this score, were not numerous. The case of the nurses, in many instances, were deserving of commiseration, the patient raging and frightful to behold; it has frequently required two persons, to hold them from running way, other have made attempts to jump out of a window, in many chambers they were nailed down, and the door was kept locked, to prevent them from running away, or breaking their necks, others lay vomiting blood, and screaming enough to chill them with horror. Thus were many of the nurses circumstanced, alone, until the patient died, then called away to another scene of distress, and thus have been for a week or ten days left to do the best they could without any sufficient rest, many of them having some of their dearest connections sick at the time, and suffering for want, while their husband, wife, father, mother, &c. have been engaged in the service of the white people.

What are the major points made by Jones and Allen in the excerpt above to refute accusations against African Americans who helped out during the yellow fever epidemic?

Black nurses were accused of neglecting the sick. Allen and Jones point out that many of the nurses were exhausted from treating people who were very ill and doing things like trying to run away, trying to jump from windows, screaming loudly, etc. The nurses would stay alone with these patients until they died and then move on to another patient, even though members of their own families might be sick as well.



Fever: 1793 - A Virtual Tour

GATHERING THE INFO: As you watch the webisode, complete this chart. You may need to pause the webisode and/or watch it more than once to get all of the information.

Location	Significance-Why is this place important in the history of the yellow fever epidemic of 1793?
Port of Philadelphia on the Delaware River	French citizens and their slaves fleeing Haiti arrived on merchant ships, carrying yellow fever with them
Area near Benjamin Franklin Bridge	A rooming house that housed two young sailors; both dead by end of July
Front & Dock Streets	Many people thought Dock Creek was source of yellow fever
American Philosophical Society at 5 th & Chestnut Streets	Meeting place for College of Physicians; doctors argued over treatment for yellow fever
Christ Church Burial Ground at 5 th & Arch Streets	Benjamin Rush and Matthew Clarkson (mayor in 1793) buried here
Mother Bethel A.M.E. Church at 6 th and Lombard Streets	Church building activities set aside so that Richard Allen and others could help during yellow fever; Sarah Bass and Richard Allen buried there
Gloria Dei Church (Old Swedes') at Christian & Front Streets	Pastor Nicholas Collin buried many victims of yellow fever
Presidents' House at 6 th & Market (High) Streets	George and Martha Washington fled to Germantown to escape epidemic

Continued, Fever: 1793 - A Virtual Tour

Northern Liberties/Heart of The Liberties (a separate city from Philadelphia in 1790)	Germantown Road was crowded with Philadelphians fleeing to higher ground
16 th & Spring Garden Streets	Mayor Clarkson illegally took over property of the Hamilton family to create Bush Hill, a hospital to treat victims of yellow fever
The Lazaretto, Tinicum Township	A quarantine hospital constructed in 1799; ship passengers infected with yellow fever were kept here until they recovered and could go to Philadelphia
City Hall/Centre Square	From 1801 to 1811, a steam driven water system was based here. Clean water was thought to prevent yellow fever.
Fairmount Waterworks	Site of the new water purification system when Centre Square water pump couldn't keep up with growing population

EXPLORING PRIMARY SOURCES:

1. Pause at 7 minutes, 16 seconds. What building is shown in this engraving? What assumptions can you make about the neighborhood of Spring Garden at the time?

The Bush Hill Estate belonging to the Hamilton family. Answers will vary, but it is apparent that there were many trees and that wealthy people lived there.

2. Pause at 8 minutes, 34 seconds. Compare this image of an eighteenth century hospital to modern day hospitals—what is similar and what is different?

Similarities may include that patients are in beds and some have visitors. There seems to be medicines and people tending to the sick. Differences may include that there are many people in the room, there appears to be a fireplace, and there is no sophisticated technology.

Continued, Fever: 1793 - A Virtual Tour

3. Pause at 9 minutes, 57 seconds. What are three observations you can make about the people in front of the waterworks in Center Square? Why do you think they have gathered there?

Answers will vary, but there are blacks and whites, men and women, adults and children. A woman appears to be drinking from a bottle and handing a cup to a man; most people seem to be socializing, so it appears to be a place that people come together during leisure time.

ANALYZING THE INFO: If you were leading a tour of Philadelphia designed to tell the story of the Yellow Fever epidemic of 1793, which three sites would you visit and why?

Answers will vary.

Anatomy of an Epidemic: Origins of Yellow Fever

GATHERING THE INFO: As you watch the webisode, take notes to complete this sheet. You may need to pause the webisode and/or watch it more than once to get all of the information.

I. Yellow Fever Timeline: Note that events will not be presented in chronological (time) order. You will not be able to fill in the later dates until you have already answered questions II & III.

17th Century- **Europeans come to Caribbean and are confronted with new disease**

1690s- **Early outbreaks of yellow fever in the Caribbean**

1791- **Slave revolts on Saint Domingue → war between British and French → Europeans get yellow fever**

1792- **Most deadly epidemic originated on the island of Bolama in West Africa; British abolitionists trying to start colony for freed slaves fell victim to tropical diseases. Returned to Caribbean and brought yellow fever with them**

1793- **French fleeing Haiti bring yellow fever to Philadelphia**

1853 & 1878- **Terrible epidemics in Mississippi River Valley**

1905- **Epidemic in New Orleans**

2. How was yellow fever epidemic connected to the slave trade?

Enslaved people brought the disease with them from Africa to plantations in places like Jamaica and Saint Domingue (Haiti). Goods and people traveled from the Caribbean to North America, bringing yellow fever with them.

3. Why did French refugees from Haiti come to North America instead of France?

They were afraid to return during the French Revolution.

4. What was vomito negro? What was its significance? **Black vomit. It was caused by dried blood and indicated that a person was about to die.**



Continued, Anatomy of an Epidemic: Origins of Yellow Fever

EXPLORING PRIMARY SOURCES: *What symptoms of yellow fever are illustrated in the images shown at 4 minutes, 41 seconds and 5 minutes, 4 seconds?*

Bleeding from the mouth and nose; possibly black vomit

ANALYZING THE INFO: *Professor David Barnes says that the Yellow Fever epidemic of 1793 in Philadelphia was similar to the events of September 11, 2001? Do you agree with his comparison? Why or why not?*

Answers will vary

Benjamin Rush: Statesman and Scientist

GATHERING THE INFO: As you watch the webisode, complete this sheet. You may need to pause the webisode and/or watch it more than once to get all of the information.

Rush the Statesman

Hero -evidence that Rush had admirable ideas and performed positive actions	Hypocrite -evidence that Rush's actions did not always follow his stated beliefs
<ul style="list-style-type: none"> • Wrote pamphlets on liberty and abolition • Told Thomas Paine to name pamphlet <i>Common Sense</i> • Signed Declaration of Independence • Active in abolitionist community; member of Pennsylvania Abolition Society • Financial supporter of free black community • Dedicated to improving Philadelphia and America 	<ul style="list-style-type: none"> • Purchased a slave in 1776; kept him for 10 years • Thought dark skin was a form of leprosy

Rush the Scientist

Genius -evidence that Rush was a doctor ahead of his time	Quack -evidence that Rush was a doctor who caused much suffering and death
<ul style="list-style-type: none"> • Went to med school in Edinburgh, Scotland—best in the world • Resigned from position as head of army hospitals because of bad conditions; criticized George Washington • Became chief of mental ward at Pennsylvania Hospital • Emphasized occupational therapy to cure mental disorders • Wrote first American textbook on mental illness 	<ul style="list-style-type: none"> • Used bloodletting, laxatives etc. ("heroic treatment") • Refused to alter his methods of bleeding and purging

Continued, Benjamin Rush: Statesman and Scientist

EXPLORING PRIMARY SOURCES:

1. Why do you think Rush decided to write AN ACCOUNT OF THE Bilious remitting Yellow Fever, AS IT APPEARED IN THE CITY OF PHILADELPHIA IN THE YEAR 1793 (shown at 6 minutes, 6 seconds)?

He probably wanted to defend his controversial views about the treatment of yellow fever.

2. Pause at 6:23. Based on what you have learned about Rush's approach to medicine, how do you think the "tranquilizing chair" was meant to work? Do you think it would have been a successful medical innovation?

Answers will vary, but students can infer that it would not have been a gentle method.

3. Pause at 6:25. What message was Rush trying to convey with his MORAL AND PHYSICAL THERMOMETER (note: "temperance" means abstaining from the drinking of alcohol)?

Rush was trying to show that people who drank less alcohol are better, healthier people.

ANALYZING THE INFO: Professor Richard Newman says that Dr. Rush was "profoundly wrong in a way that permits others to be right". Do you agree with this assessment? Why or why not?

Answers will vary.

Burying the Dead: Victims of the Yellow Fever Epidemic

GATHERING THE INFO: As you watch the webisode, complete this sheet. You may need to pause the webisode and/or watch it more than once to get all of the information.

1. Fill in this chart.

Church and/or denomination	Role in the yellow fever epidemic of 1793
St. Mary's German Catholic Church	Opened its graveyard to refugees from far and wide; black Haitians buried in same place as whites. <u>All</u> of their clergy died during the yellow fever epidemic.
St. Michael's Zion Lutheran Church	Pastor Henry Helmuth kept a record; he buried 641 Lutherans. Went to cemetery and waited for carts to arrive.
Baptists	One church lost 150 of its members in one week.
Richard Allen's African American congregation	Nursed and buried fever victims. Over 200 died even though Rush told them that they were immune.
Holy Trinity Catholic Church	In 1798, created the first orphanage in the nation to care for children of people killed in later yellow fever outbreaks

2. How many people died during the Yellow Fever epidemic of 1793? **Over 5,000**

EXPLORING PRIMARY SOURCES:

1. What do the images at 2 minutes, 43 seconds and 3 minutes, 4 seconds illustrate about death and burials during the yellow fever epidemic of 1793?

People were carted off and buried quickly and in large numbers.

2. Pause at 4 minutes, 5 seconds. Which of the churches listed at the top of the document lost the most people in September of 1798?

St. Mary's Church



Continued, Burying the Dead: Victims of the Yellow Fever Epidemic

ANALYZING THE INFO: Professor Allen Guelzo says that the yellow fever epidemic of 1793 erased **Deism** (the belief that human reason, rather than organized religion, can explain the natural world and the existence of God) in the United States. Why does he say this occurred? Does this reaction make sense to you?

Answers will vary.

Doctors and Cures: Treatments of Yellow Fever

GATHERING THE INFO: As you watch the webisode, complete this sheet. You may need to pause the webisode and/or watch it more than once to get all of the information.

1. How did most people receive their health care? Why were people skeptical of doctors?

They got their health care from their families. Doctors profited off of human misery.

2. Begin this at the 2-minute mark in the webisode: List the suggested cures for yellow fever in the appropriate column. Decide whether the cure fits with the more gentle approach favored by doctors William Currie and Jean Deveze or with the "heroic" efforts promoted by Benjamin Rush.

Currie/Deveze	Rush
<ul style="list-style-type: none">• Hydration• Rest• Lying in a dark room• Wine	<ul style="list-style-type: none">• Mercurial agents (like castor oil) to purge bowels• Wrap patient in blankets to make them sweat• Bloodletting• Used a syringe in rectum or urethra to produce diarrhea

3. What was the theory of humors? How did it justify Rush's approach to curing yellow fever?

The body is made up of a system of fluids that need to be kept in balance. If someone is ill, they need to get rid of the bad humors. Rush's methods got fluids out of the body in various ways.

4. According to the webisode, gunfire was used in an unsuccessful attempt to end the yellow fever epidemic. What actually did end the spread of the disease?

The change of seasons that got rid of mosquitoes.

Continued, Doctors and Cures: Treatments of Yellow Fever

EXPLORING PRIMARY SOURCES:

1. Pause at 1 minute, 11 seconds. The man standing in the center is saying to the African American woman, "Don't tell me you outlandish hussey of toast and toddy. I say it's the black vomit". (Note that "black vomit" was a symptom of yellow fever.) What seems to be actually wrong with the patient and who is being made fun of in this cartoon?

The patient is drunk; the doctor is the object of ridicule in this cartoon.

2. What are the terms for the objects shown at 2 minutes, 50 seconds and how were they used?

A bleeding bowl and a spring lancet; they were used for bloodletting. The lancet would make the cut and the blood would drain into the bowl.

3. What is shown at 3 minutes, 27 seconds and how was it used?

A syringe that would be loaded with harsh chemicals and put in the rectum or urethra to induce diarrhea.

4. Using a dictionary if needed, explain what the title shown at 5 minutes, 32 seconds indicates about the content of the publication.

The title implies that this publication will prove that Dr. Benjamin Rush was wrong about the cause of the yellow fever epidemic. It will show that Philadelphia's lack of cleanliness was not the cause.

ANALYZING THE INFO: What are the three most significant differences between how medicine was practiced in the 18th century and how it is practiced today?

Answers will vary



The Healthy City: Early Public Health

GATHERING THE INFO: As you watch the webisode, complete this sheet. You may need to pause the webisode and/or watch it more than once to get all of the information.

1. What were the two main explanations for Philadelphia's recurring yellow fever outbreaks?

Bad air; importation—brought by Haitian refugees fleeing political unrest.

2. Fill in the chart below.

Steps taken to clean Philadelphia and prevent spread of disease	Steps taken to calm Philadelphia during the yellow fever epidemic of 1793
<ul style="list-style-type: none">• Board of public health established• Municipal employees to patrol streets with leather buckets filled with water• Built a new Lazaretto, quarantine hospital, further from city	<ul style="list-style-type: none">• Guidelines from College of Physicians• Churches told to stop ringing bells

EXPLORING PRIMARY SOURCES

1. Pause at 1 minute, 48 seconds. According to the first four lines of the document, what are captains or masters of ships required to do when they reach the Port of Philadelphia? (Note: you will usually need to replace "f" with "s" as you read.)

Send a boat to bring the Resident Physician to the ship and bring him back after he has done an official examination.

Continued, The Healthy City: Early Public Health

2. What procedure is illustrated in the image at 2 minutes, 25 seconds?

A leather bucket filled with water is being used to clean city streets.

ANALYZING THE INFO: The webisode begins with the following poem by Philip Freneau:

Nature's poisons here collected,
Water, earth and air infected—
O, what a pity,
Such a city,
Was in such a place erected!

Does this quotation do a good job of describing Philadelphia in the 1790s? How about Philadelphia today? Answer on the back or on a separate sheet.

Answers will vary.

Fairmount Water Works: Ingenuity in Water Supply

GATHERING THE INFO: As you watch the webisode, complete this sheet. You may need to pause the webisode and/or watch it more than once to get all of the information.

1. Why was water so important in the early history of Philadelphia?

The port made Philadelphia the trading capital of the new world.

2. Fill in the blanks to describe Latrobe's original water system for Philadelphia as described by John Van Horne.

"Latrobe proposed an unorthodox approach to bring fresh water into the city from the Schuylkill River. He wanted to install **a steam engine** at the foot of **Chestnut** Street and from there the water would **flow underground** through a **brick** conduit to **Center Square**, where **City Hall** now stands. From there he wanted a **second steam engine** that would raise the water into a series of raised cisterns or **tanks** and from there the water would be distributed by **gravity** through the city through **six miles of wooden, white oak** pipes."

3. Fill in the chart below with information about the 1801 Pump House.

Successes	Challenges
<ul style="list-style-type: none"> • Revived Philadelphia's reputation as a progressive city • Became popular gathering place • Fountain built alongside (The Water Nymph; nation's first example of public art.) • Beautiful building 	<ul style="list-style-type: none"> • Noisy • Dangerous • Threat of explosion • By 1801, not enough capacity for population of growing city

Continued, Fairmount Water Works: Ingenuity in Water Supply

4. Why were Charles Dickens and others so impressed by Philadelphia's Fairmount Water Works?

Water was plentiful and inexpensive for city residents. The area and the building itself were considered beautiful—"a combination of technology and beauty".

EXPLORING PRIMARY SOURCES:

1. Pause at 5 minutes, 21 seconds. What two engineering marvels are depicted?

Water Works

Dam across the Schuylkill River

2. Pause at 5 minutes, 54 seconds. What observations can you make about the people outside of the Water Works? Why do you think they are there?

They are dressed up in fancy clothes. Families as well as couples and individuals. Most seem to be wealthy. They seem to be there just strolling and enjoying leisure time.

ANALYZING THE INFO: According to Professor Steven Conn , "The Internet is as nothing when compared to drinkable water." What does he mean by this statement? What evidence did you find in the webisode that supports this comparison?

Answers will vary.

Fever: 1793 Quiz Questions (Based on Note Taking Sheet)

1. ____ In the 1790s, Philadelphia's economy was based on its
 - a. Port.
 - b. Involvement in the slave trade.
 - c. Textile industry.
 - d. Agricultural production.
2. ____ Which of the following was thought to be a cause of Yellow Fever?
 - a. Contaminated wells.
 - b. People or goods arriving in the city by ship.
 - c. Garbage rotting on city streets.
 - d. All of the above.
3. ____ Benjamin Rush believed the best way to treat Yellow Fever was
 - a. A mild diet and bed rest.
 - b. Exposure to frost.
 - c. Aggressive interventions such as bloodletting.
 - d. Red wine and hot tea.
4. ____ Each of the following statements about African American nurses during the Yellow Fever is true EXCEPT:
 - a. Leaders like Richard Allen believed that their service would lead to greater acceptance by white Philadelphians.
 - b. They were immune to Yellow Fever.
 - c. They were accused of stealing and price gouging.
 - d. Richard Allen co-authored an account of their role during the epidemic.
5. ____ As a response to the Yellow Fever crisis
 - a. A citywide water system was developed.
 - b. The capital of Pennsylvania was moved to Harrisburg.
 - c. Children's Hospital of Philadelphia was opened.
 - d. All of the above.

Answer Key:

1. a 2. d 3. c 4. b 5. a