

The Saffron Scourge: Society, Politics and Disease

Diane Luke and Ann Winkler

Introduction

Until Walter Reed discovered the source, Yellow Fever ravaged the Americas and was responsible for throwing cities into desolate wastelands of fear. Today we know that Yellow Fever is caused by the specific mosquito *Aedes aegypti*, and can be contained. This lesson, which is suitable for U.S. History or Sociology classes in grades 10 and 11, will allow your students to explore aspects of the illness from infection to possible death. Students will also learn about the societal, governmental, and economic effects epidemics have upon cities. The study is conducted by choosing a city where a major outbreak occurred; two such cities are Philadelphia (1793) and New Orleans (1853). However, if you research a bit you may find that an epidemic happened in your city or close to your home. After an informational session, ten digital pictures will be supplied to the students (see Teaching Tips for complete information). Students will be divided into groups and asked to write newspaper style headlines for each picture as it pertains to the Yellow Fever outbreak they have studied. Students will then compile the pictures in a PowerPoint presentation to show to the class.

This lesson plan meets the following themes and performance expectations of the national social studies standards and the NETS-S National Educational Technology Standards for Students.

NCSS Thematic Strands

III PEOPLE, PLACES, AND ENVIRONMENTS

V INDIVIDUALS, GROUPS, AND INSTITUTIONS

Performance Expectations

III PEOPLE, PLACES, AND ENVIRONMENTS

- j. Analyze and evaluate social and economic effects of environmental changes and crises resulting from phenomena such as floods, storms, and drought;

V INDIVIDUALS, GROUPS, AND INSTITUTIONS

- a. Apply concepts such as role, status, and social class in describing the connections and interactions of

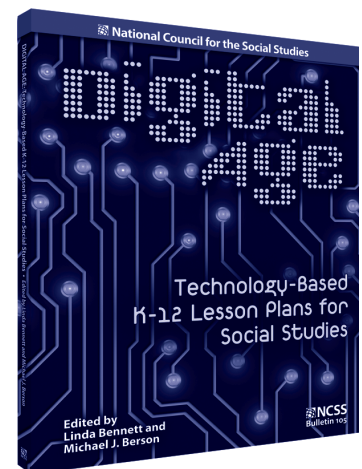
individuals, groups, and institutions in society

NETS-S National Educational Technology Standards for Students

- 5. Technology Research Tools
- 3. Technology Productivity Tools

Performance Expectations

- 8. (5) Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning
- 9. (3, 5) Investigate and apply expert systems, intelligent agents, and simulations in real-world situations



This article is one of more than thirty articles and lesson plans that will be published in March in the forthcoming NCSS Bulletin, *Digital Age: Technology-Based K-12 Lessons for Social Studies*, edited by Linda Bennett and Michael J. Berson. The book will be sent free of charge to all NCSS comprehensive members.

The book will also be available in March for \$14 plus shipping and handling for NCSS members and \$24 plus shipping and handling for non-members; call 1-800-683-0812 and quote item number 070105 to make an order. Advance orders can be placed right away.

If you are not a comprehensive member, but would like to become one and get all NCSS bulletins sent to you free of charge, upgrade to comprehensive membership next time you renew. For regular NCSS members renewing their membership for a year, it costs only \$11 a year extra to be a comprehensive member—less than the cost of a single book!

Objectives

1. The student will be able to understand how natural causes, such as disease, can affect the population of a society.
2. The student will be able to evaluate the role of political and social city models during a time of specific hardship.
3. The student will be able to illustrate his/her learning through the use of computers and relevant software.

Time

Three 1-hour sessions

Instructional Steps

Session 1

Preparation ahead of time will include learning the basic facts of Yellow Fever and the information you wish to present to your students regarding the city you have chosen. By looking through the resource list you should be able to obtain excellent information, especially if you choose a major city. The lesson plan originally focused on Tampa, Florida and an outbreak that occurred in 1887.

This first session will be the base content session. Activating prior knowledge of epidemics will help get this lesson rolling. Have students divide into groups and brainstorm words that relate to epidemics. A great graphic organizer for this is to give students a large piece of butcher paper, or poster board, write the word “epidemic” in the middle, and then write their brainstorming words around this central word. Bright colored markers are essential for such an activity!

A vocabulary review would also be helpful in starting the lesson. Some words of importance that students may not be familiar with include:

Yellow Fever: a viral disease transmitted between humans by a mosquito

Miasma: a poisonous atmosphere formerly thought to rise from swamps and putrid matter and cause disease

Quarantine: enforced isolation or restriction of free movement imposed to prevent the spread of contagious disease

Aedes aegypti: the mosquito that carries the Yellow Fever virus

Jaundice: yellowish discoloration of the whites of the eyes, skin, and mucous membranes caused by deposition of bile salts in these tissues; it occurs as a symptom of disease

Hemorrhage: excessive discharge of blood from the blood vessels

Boosters: community organizations designed to help promote a city’s popularity for the benefit of increase in population and commerce

Epidemic: an outbreak of a contagious disease that spreads rapidly and widely

Immunity: inherited, acquired, or induced resistance to infection by a specific pathogen

Your content presentation follows next. You can choose to use any presentation device you feel best suited for your students to present the content. Ideas include lectures with graphic organizers, jigsaw activities where students read parts of information and come together to assemble the complete picture, or perhaps even a mini-drama where the Yellow Fever epidemic is played out using a pre-written teacher narration. Regardless of your approach, it is important to include the following concepts:

1. The definition of an epidemic.
2. The basic facts of Yellow Fever and its disease course.
3. The specific facts of Yellow Fever in relation to the city you chose, i.e. date of epidemic, number of people involved, number of people killed, etc.
4. How governmental and societal institutions responded to the epidemic.
5. General population view of epidemic, i.e. great fear, relaxed attitude, etc.
6. Surrounding cities’ view of the besieged city and their response.
7. Major changes that occurred in the government, society, medical profession, and everyday life, because of the epidemic.

Session 2

This will be the day your students form into their groups and either use computers in your classroom (if available) or visit the computer lab. Be sure that you reserve the lab ahead of time and make sure that Power Point is on the computers you wish to use. Have students divided into heterogeneous groups. The group size will be based upon the number of students in your class and the number of computers available. Depending on group size, have students rotate the role of “computer operator” throughout the hour so that all students have a chance to work hands-on with the computer and software. Designate other roles—recorder, time-keeper, etc.—so that all students are involved. Be sure to remind students that actions and behavior during this creative process will be taken into account on the final assessment. Help students budget their time by giving them an approximate per minute slide time; for example with forty minutes and ten slides, each slide must be completed in approximately four minutes in order to finish the project. Also, keep the rubric handy and make notations regarding each group to help in final scoring.

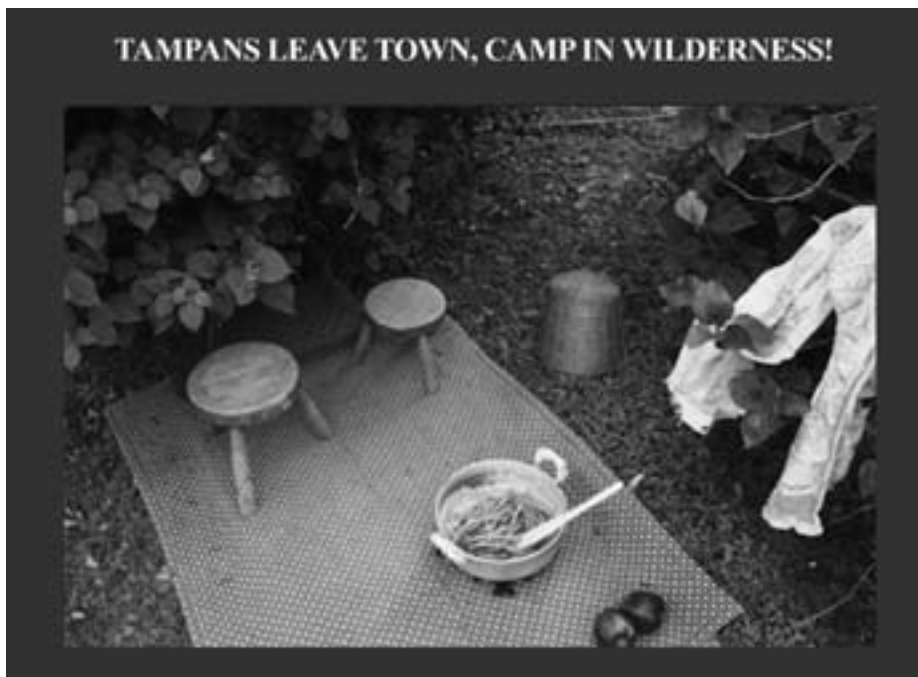
This lesson is not suggested for first time Power Point users. Be sure that your students have basic Power Point experience. They do not need expertise to create these slides. Encourage creativity with backgrounds and colors so that they can individualize their projects. Prepare the computers ahead of your scheduled class. We used a USB/Thumb Drive device to load the pictures onto the computers so that they would be ready for student use. When students were finished with their project we saved it on the USB/Thumb Drive so that it could then be accessed for presentation purposes.

Session 3

Presentation Day! Student groups will present their slideshow using a projector and computer. You should predetermine how long each group has for their presentation. An approximate time range should be given on the rubric. As each presentation occurs allow a short time for questions. After the presentations are finished, wrap up the lesson with a discussion debriefing. Some questions to consider: Could an epidemic like this happen today? What improvements have been made since the time period studied to help people out during periods of crisis? How would you have reacted if faced with this situation?

Assessment

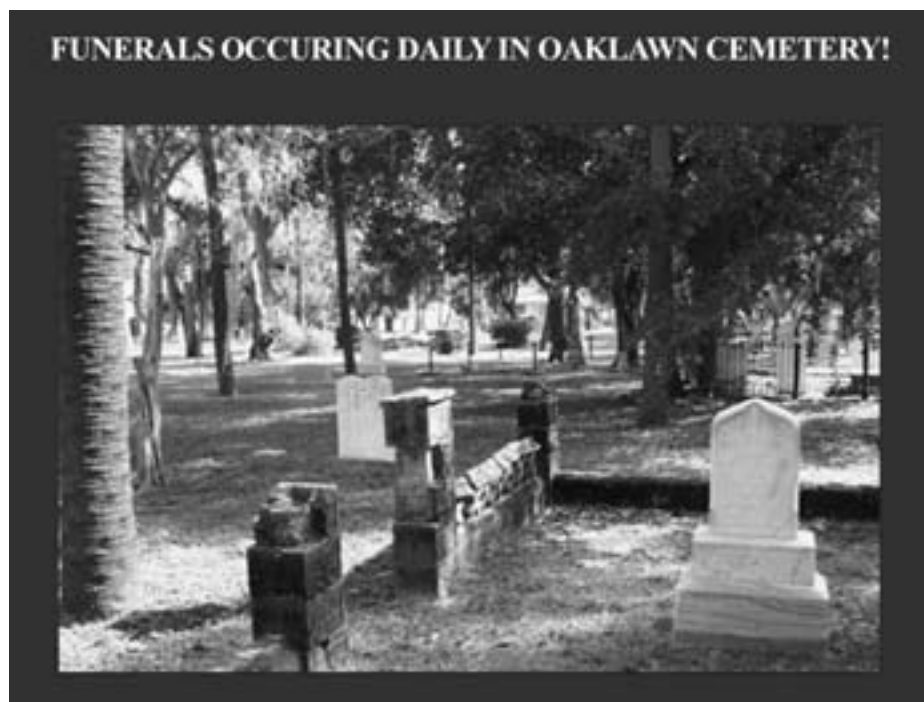
Students will be assessed by taking into account participation on the content session day, how well they worked as a group in the computer lab, and the effectiveness of their headlines. The assessment can be best graded by using a rubric involving a check list and a rating scale. The check list should cover required elements, i.e. ten headlines, ten photos, length of presentation, etc. The rating scale should be used for more esoteric items, i.e. success of group interaction, quality of presentation, creative use of PowerPoint, etc. Be sure your rubric includes an individual score and a group score. Copies of the rubric can be handed out to students before assembly of the slideshow. This way the students will know exactly what is expected.



Student Enrichment

To further understand the effects of Yellow Fever, students can be encouraged to read one of two books. They both deal with the outbreak of Yellow Fever in 1793. A novel by Laurie Halse Anderson regarding the outbreak, titled *Fever 1793*, is a terrific way to introduce students to the trauma. A second alternative is called *An American Plague*, by Jim Murphy. This story presents the facts in a format perfect for students of this age group.

Regardless of the book you choose, a great project to help adapt the lesson to students of all abilities would be to divide the students into groups, with each group having a section of the story as their responsibility. They would then draw a story board representing their section. These story boards can be presented to the class. The graphical representation of the story is a way to enhance kinesthetic and visual learning.



Teaching Tips

Obtaining photographs can be done in several ways. Since the outbreak upon which we originally based this lesson took place in our city, we drove to historic sites and took pictures of actual places we had spoken about during the content portion of the lesson. We also staged scenes (a husband became a Yellow Fever victim attempting to recover) to cover some ideas that were impossible to find. We used the sepia setting on the digital camera, which gave

the pictures an “old-fashioned” tone. However, since you may not be in the city you are covering, there are still many ways to find ten excellent pictures.

For example, if you know that the disease came from a boat through a port and you happen to live in an area where there is water available, then take a picture of that spot. It will serve as a substitute for the “real” area. If you are concerned that students will have no idea what to do with a scene of water, remember that this lesson requires active and creative thinking. Even if their headline is not exactly what you envisioned as a possibility when you took the picture, you may be surprised by how fitting it is to the epidemic regardless.

You can also stage your pictures as we did. This just requires imagination, perhaps a few participants, and very little time. We spread a quilt in the backyard, and placed a couple of wooden stools, an old cooking pan and some apples to create a “camp spot.” This was to denote the idea that many people fled the city and were forced to camp away from their homes during the time of an epidemic. If you are truly looking for realism then use the internet to find pictures of the actual places in the city you are studying. A bit of caution in doing this third form of picture hunting: be careful not to pick a picture that will be pigeon-holed into one possible headline. Remember to allow for student creativity and not to be completely obvious with your choices. Also be cautious of copyright information and make sure you are using a picture open to the public.

If you have networked computers, you can upload your pictures onto a central site that all students can access. This will save time over using a USB/Thumb Drive device. You can also designate a folder where all students can save their projects. On presentation day, students can simply access this folder on the network. If you are able to burn CDs, you can also use this method to save and load the pictures to available computers. Due to file size, the average floppy will not work for this exercise. Students will need a larger file space to save their work.

One last note on pictures: “Ten” pictures is the number that worked for this class. If you need to make it less or more, by all means change the lesson to suit your needs! 📷

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TECHNOLOGY RESOURCES

HARDWARE

Computers (including one computer in classroom capable of projection of PowerPoint presentations), projector, digital camera, USB/thumb drive (optional), compact discs (optional)

SOFTWARE

Microsoft PowerPoint

INTERNET

- Centers for Disease Control. Yellow Fever Disease and Vaccine. www.cdc.gov/ncidod/dvbid/yellowfever/.
- Bresnahan, Patrick. Yellow Fever. web.bryant.edu/~history/h453proj/spring_01/yellow_fever/index.html.
- Bronzell, Patrisha and Patricia D’Agostino. Philadelphia Yellow Fever Epidemic 1793. www.libweb.org/sls09/.
- Eyewitness to History. Yellow Fever Attacks Philadelphia 1793. www.eyewitnesstohistory.com/yellowfever.htm.
- The History Channel, search under “yellow fever.” www.historychannel.com.

PRINT

- Anderson, Laurie Halse. *Fever 1793*. Simon and Schuster: New York, 2000.
- Duffy, John. *Sword of Pestilence; the New Orleans Yellow Fever Epidemic of 1853*. Louisiana State Press: Baton Rouge: 1966.
- Ellis, John H. *Yellow Fever & Public Health in the New South*. University Press of Kentucky: Kentucky, 1992.
- Murphy, Jim. *An American Plague: The True and Terrifying Story of the Yellow Fever Epidemic of 1793*. Clarion Books: New York, 2003.
- Pierce, John and James Writer. *Yellow Jack: How Yellow Fever Ravaged America and Walter Reed Discovered Its Deadly Secrets*. Wiley: Hoboken, 2005.
- Savitt, Todd L. and James Harvey Young, Eds. *Disease and Distinctiveness in the American South*. University of Tennessee Press: Knoxville, 1988.
- Tomes, Nancy. *The Gospel of Germs*. Harvard College: USA, 1998.

Other Materials Needed

Screen or equitable blank wall for projection, ten digital photos placed in a file that is accessible to students.