Final Project – Primary Source Learning Activity

Section I

1. Title of Lesson:

   The Effects of Natural Disasters on Society

2. Overview:

   In today's world, natural disasters have unfortunately become common occurrences. Nations all around the world have been affected by nature's wrath and have been challenged to rebuild and reinvigorate after these disastrous events. In this particular lesson, the students will have the opportunity to investigate the social effects that natural disasters have upon a society. By reflecting upon recent natural disasters, and then investigating past disasters through the utilization of primary sources, students will gain an understanding of how our society has grown to tackle these events by implementing the scientific method. Additionally, students will be challenged to suggest programs or activities to help deal with the aftermath of a natural disaster in order to assist in rebuilding a society.

3. Learning Goals:

   • Students will be able to describe the effects of various natural disasters that have occurred in their lifetimes
   • Students will be able to utilize a variety of primary sources in order to gain an understanding of the impact of past natural disasters
   • Students will be able to understand and apply the scientific method in order to solve the problem of a natural disaster.
   • Students will be able to compare and contrast past natural disasters to more recent occurrences
   • Students will be able to design a plan of action for assisting with the aftermath of a natural disaster

4. Time Required/Duration of Activity:

   5 class periods (45 minute periods)

5. Recommended Grade(s):

   Grades 9-12
6. **Subject:**
   - Science, technology, and business
   - Art and culture

7. **Credits:**
   Meghan Boland – Freedom Area School District
   Adapted from a lesson designed by: Patricia Solfest & Kimberly Wardean

8. **LDC Teaching Task:**
   **LDC Type of Teaching Task** – Informational or Explanatory: Cause-Effect

   **Guiding Essential Question/Statement** – Which type of natural disaster causes the most damage to a society? After reading a variety of primary source texts, select a natural disaster and explain why that disaster causes the most damage to a society. Support your discussion with evidence from the texts.

9. **Section II**

10. **PA Common Core Standards:**
    
    **CC.3.6.11-12.B.** Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

    **CC.1.2.11-12.G.** Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

    **CC.1.4.11-12.S.** Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade-level reading standards for literature and literary nonfiction.

10. **Materials Used:**
    - Primary source analysis tool
    - Graphic organizer (Venn Diagram)
    - Guided note sheet
    - Poster board, construction paper, markers, scissors, etc. for making posters
    - Student computers
Final Project – Primary Source Learning Activity

11. Resources Used:

- Letter from Wilbur Wright:

- Gallery of Artifacts

- Informational text:

Section III

12. Instructional Procedures:

- In order to begin the class, the students will complete a mini-task in which they will learn about the steps of the scientific method. This mini-task will utilize the “teacher on your shoulder” graphic organizer which will accompany a written letter from Wilbur Wright to a colleague regarding his attempt to create a successfully flying aircraft. The students will be required to read through the letter and analyze the text in order to determine the steps utilized by the Wright brothers to construct a successful aircraft. By reading through and analyzing this text, the students will understand the steps of the scientific method and will be able to apply the scientific method towards solving everyday problems. The scientific method will be important background knowledge for successfully completing the rest of the lesson. The students will now have an understanding of how the scientific method can be utilized to solve an everyday problem.
Therefore, the students will later utilize the scientific method to solve the problem of a broken society following a natural disaster. This mini-task allows me to include a broad range of scientific content in my instruction.

- Next, to begin the lesson, the students will be challenged to answer the essential question provided: Which type of natural disaster causes the most damage to a society – select a natural disaster and explain. The students will be provided sufficient time for them to write a brief response (1-2 paragraphs).
- After the students have reflected on a natural disaster and its effects on the environment and society, the students will have the opportunity to share their responses with the class. This will allow informal class discussion on the disasters. This will also allow me to lead and direct the discussion towards the social effects of natural disasters, rather than solely the physical and environmental damage.
- After briefly discussing the social effects of recent natural disasters, the students will be instructed to utilize the primary sources provided (from the “Gallery of Artifacts”) to learn about natural disasters that occurred several years ago, perhaps before they were born. As the students study these past natural disasters, they will create a Venn diagram comparison in order to compare and contrast the social effects of a historical natural disaster and the natural disaster that they explained at the start of class.
- After completing their Venn Diagrams, the students will then meet in small groups to share and discuss their findings. Then, within their groups, the students will be required to create a list of the major social effects of natural disasters (both historically and recently). This will help the students to focus on the effects that these disasters have on society rather than solely the environment.
- After allowing time for the students to generate their lists, we will create one large class list on the chalkboard of social effects of natural disasters. This will allow all of the groups to share their thoughts and discuss them.
- Next, each individual student will read through the provided informational text regarding the American Red Cross Hurricane Recovery Program. This will provide the students with an example of how this organization helps to rebuild societies after deadly natural disasters such as hurricanes. This will give my students some ideas of how they can make a difference in rebuilding after a natural disaster.
- Now, the students will meet with their small group again (no more than 4 people per group) in order to complete the next phase of the lesson. I will then propose to all of the groups that “If you were the president or leader of a community that has just endured a natural disaster, how would you combat one or more of these social effects? What programs, fundraisers, or events could you coordinate to help solve these social problems that has resulted from the disaster?” Each small group will confront this “problem” and will utilize the scientific method to develop a “plan of action” for tackling one or more social effect (examples may include food drives, fundraisers, job placements, home building, etc.) After developing an idea, each small group must create a poster to advertise for their event, program, etc. These posters will be hung in the hallways of the school!
- Finally, each individual member of each group will be required to write a brief essay describing the social effects of natural disasters and how their program, fundraiser, etc. can help to relieve one or more of these problems. The students will be required to draw from and cite their primary source research in their writing.
Final Project – Primary Source Learning Activity

- **Additional note**: if one of the groups generates a particularly unique and practical idea for their “plan of action” (for instance a food drive, fundraiser, etc.), the entire class could complete the fundraiser and donate the proceeds to a disaster relief organization. This would help the students to realize that they can truly make a difference!

**Section IV**

13. **Assessment:**

**Assessments utilized:**

- **Teacher on your shoulder** – this graphic organizer will assess the students and their ability to analyze a provided primary source and analyze its meaning by answering the provided questions. This mini-task will be assessed using the provided rubric that will assess the student answers to the three provided questions. These responses will be ranked as proficient, emergent, or basic based upon the thoroughness and validity of the provided answers.

- **Venn Diagram** – these graphic organizers will be assessed upon each student’s ability to effectively compare and contrast the effects of historical versus current natural disasters

- **Small group poster** – these posters will be assessed on the students’ ability to identify social effects of natural disasters and propose a idea for tackling the problem

- **Individual student essay** - these essays will be assessed based upon each student's ability to draw from primary source research and class discussion to describe and propose solutions to the social effects of natural disasters. Specifically, by utilizing the LDC rubric, these essays will be graded for the student’s focus, controlling idea, research, development, organization, conventions, and overall content understanding.
Wilbur Wright Letter – Teacher on Your Shoulder Mini-Task

**Rubric**

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<th>Level</th>
<th>Description</th>
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| **Proficient** | **Question 1:** Student explains and comprehends Wilbur Wright's belief that knowledge and skill or the operator are more important than aircraft design because the true criteria for flight are determination and an ability to react appropriately in all flight circumstances.  
**Question 2:** The student explains that Wilbur's colleagues have spent inadequate time testing their designs, possess structural errors, etc. This will hold them back because they are not truly committed to conquering the task at hand and has helped Wilbur in completing background research.  
**Question 3:** Wilbur thoroughly explains his structural design and then asks for advice on an ideal area to fly. He wants an area with proper space, terrain, wind flow, etc. |
| **Emergent** | **Question 1:** The student is able to explain why knowledge and skill are important for flight, but doesn't thoroughly explain why these attributes rank more heavily than aircraft design.  
**Question 2:** The student states that Wilbur's colleagues have not properly tested their designs but do not explain that by investigating this, Wilbur has completed valuable background research that will guide his experimentation.  
**Question 3:** The student explains that Wilbur is searching for an ideal area to fly, but do not explain why it is important for him to find such ideal conditions for his experiment. |
| **Basic** | **Question 1:** The student is unable to explain why knowledge and skill rank more heavily than aircraft design.  
**Question 2:** The student is unable to explain the downfall of Wilbur's colleagues and why this is important information.  
**Question 3:** After describing Wilbur's design, the student is unable to state what Wilbur asks for in his letter. |