



Classroom Activities

Death By Fire

VIDEO OVERVIEW

Watch video [Chapter 5](#) of the FRONTLINE film *Death by Fire*.

In 2004, Cameron Todd Willingham was executed for the arson deaths of his three young children. The initial fire investigation found more than 20 indicators of arson, pointing to Willingham's guilt. But as students will discover in this video clip, when a modern fire scientist re-examined the evidence used to convict Willingham, no sign of arson was found. Did Texas execute an innocent man?

GETTING STARTED

For classrooms studying Social Studies, Civics and Law, this FRONTLINE teacher's guide includes a set of themes and discussion questions to help students analyze and understand key current events. Watch the video and start a discussion that examines the credibility of evidence used to convict Willingham. Go further into this topic with the *Death by Fire* lesson plan that asks students to compare conflicting interpretations of evidence from the crime scene and to evaluate whether or not the state proved that Willingham was guilty.

VIDEO THEMES

- In the years since Willingham's conviction in 1992, there has been a dramatic change in the science of arson investigation.
- To better learn how to detect arson, scientists now set their own fires and study how they burn.
- After re-examining the evidence used to convict Willingham, Gerald Hurst, a modern arson scientist, determined that there was no sign of arson and that Willingham had been wrongly convicted.
- Despite Hurst's report and a series of emergency appeals filed by Willingham's attorney, the execution went forward as scheduled. Cameron Todd Willingham was executed by lethal injection in 2004.

DISCUSSION QUESTIONS

- How would setting fires and studying how they burn help scientists who conduct fire investigations?
- How valid do you think Hurst's criticisms are for the arson evidence from the initial fire investigation? Explain.
- Do you believe that the state proved its case that Willingham was guilty of murdering his three children by arson?
- Based on Hurst's analysis of the arson evidence used to convict Willingham, do you believe that Willingham's execution should have been delayed and his case reopened? Why or why not?
- If Willingham was actually executed for a crime he didn't commit, how should that affect other death penalty cases in the United States?

GO FURTHER

Death by Fire Lesson Plan: "Did Texas Execute an Innocent Man?"

Web-exclusive Resources: [Documents and Artifacts From the Willingham Case](#)

CREDITS

Developed by:

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Written by:

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FEATURED LESSON PLAN: DID TEXAS EXECUTE AN INNOCENT MAN?

Overview:

In this lesson, students will examine evidence used in a 1994 case to convict Cameron Todd Willingham, who was executed for the arson-murder of his three young daughters. Students will also review a later study that re-examined the evidence and determined that arson was not involved. Finally, students will judge for themselves whether or not the state proved its case against Willingham. For primary source documents and other background materials on this case, please see Related Resources.

Grade Level:

Grades 9-12

Subject Areas:

Social Studies, Civics, Law

Objectives:

The student will:

- Consider evidence presented in an arson-murder trial and a re-examination of that evidence years later
- Compare and contrast the findings of these investigations
- Evaluate whether the state proved its case against the defendant

Estimated Time Needed:

One 50-minute class period. For classrooms able to spend more time or that need additional background, please see the teaching strategies outlined in the Lesson Extensions.

Materials Needed:

- Internet access and equipment to show the class online video clips
- Clips from *Death by Fire*, [Chapter 2](#): "The State's Case" and [Chapter 5](#): "Re-examining the Evidence"
- Handout 1: "The State's Case"
- Handout 2: "Re-examining the Case"
- Handout 3: "Analyzing the Case"
- Optional Handout: "Key Terms in a Criminal Case"

Procedure:

1. Divide the class into small groups of 3-4 students.
2. Distribute the student handout "The State's Case" to all students.
3. Have students watch Chapter 2: "The State's Case" (length: 8:43) and respond to the questions on the handout. Then have the student groups briefly discuss the questions listed at the end of the handout.

4. Repeat this process with a second video chapter. Distribute the student handout “Re-examining the Evidence” to all students.
5. Have students view Chapter 5: “Re-examining the Evidence” (length: 11:18) and take notes on the handout as they watch. Again, have student groups briefly consider the discussion questions at the end of the handout.
6. Pass out the third student handout, “Analyzing the Case,” to all students. Have student groups compare and contrast the evidence presented in the two video clips. Then ask each group to evaluate whether or not the state proved its case against Willingham.
7. After the groups have completed their handout, have them report their findings to the class.

Lesson Extensions:

- Familiarize students with the key legal terms used in this lesson. Divide students into pairs. Make enough copies of “Key Terms in a Criminal Case” for each pair. Separate the terms from the definitions and place the terms in one envelope and the definitions in another. Distribute the two envelopes to each pair of students and have them match the terms to the definitions.
- Conduct an in-depth investigation of the constitutional rights of the accused. As a class, review the four constitutional amendments listed at the beginning of the essay, “[Rights of the Accused](#).” Then assign each group a section of the essay and ask them to read it together and develop a summary to share with the rest of the class. Discuss the historical background of these constitutional protections for the accused, then investigate how these rights have been interpreted in some of the [Landmark Cases of the U.S. Supreme Court](#).

RELATED RESOURCES

Students should be aware that websites often present only one aspect of an issue. Encourage students to think about and question websites as they are reviewing them. Some guiding questions they can use are: What did you learn from this site? What didn't you learn from this site? Who sponsors this site? What bias might the sponsor have? How current is the site?

Background:

NPR: [“Improving the Science of Arson Detection”](#)

This approximately five-minute interview with arson expert John Lentini discusses methods of detecting arson.

The New Yorker: [“Trial by Fire”](#)

This article examines the 1994 arson-murder case of Cameron Todd Willingham, the investigations, and whether Texas might have executed an innocent man.

The Texas Tribune: [Cameron Todd Willingham](#)

This topic page provides background information and ongoing coverage of Willingham's case.

Death Penalty

Michigan State: [The Death Penalty](#)

A curriculum for high school students and teachers that outlines the stages of a capital case, provides state-by-state data, presents arguments for and against the death penalty, and more.

University of Alaska: [Death Penalty Organizations and Sites](#)

This resource directory provides links to organizations and sites both for and against the death penalty.

Primary Source Documents:

FRONTLINE: [Death by Fire](#)

Read the 1992 Fire Investigator's Report and Gerald Hurst's 2004 Report. Review transcripts of police interviews with Willingham and his wife. Study the accounts of the fire given at trial by family, neighbors, firefighters and Willingham himself.

PURCHASING THE FILM

Death by Fire can be purchased from [PBS Educational Media](#).

RELATED STANDARDS

[Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects](#)

SL, 9-10, 11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on [grade-appropriate] topics, text, and issues, building on others' ideas and expressing their own clearly and persuasively.

SL, 9-10.4 Present information, findings, and supporting evidence clearly, concisely, and logically, such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

SL, 11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

RH.9-10.2 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.

RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

RH.11-12.3 Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.

WHST. 9-10, 11-12.1 Writes arguments focused on discipline-specific content.

WHST. 9-10, 11-12.2 Writes informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, and technical processes.

WHST. 9-10, 11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

WHST. 11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and over-reliance on any one source and following a standard format for citation.

Content Knowledge: a compilation of content standards and benchmarks for K-12 curriculum by McRel (Mid-continent Research for Education and Learning).

Civics, Standard 3: Understands the sources, purposes, and functions of law, and the importance of the rule of law for the protection of individual rights and the common good.

Civics, Standard 18: Understands the role and importance of law in the American constitutional system and issues regarding the judicial protection of individual rights.

Civics, Standard 21: Understands the formation and implementation of public policy.

Key Terms in Criminal Law

- Presumption of innocence: The idea that all people accused of a crime are innocent until proven guilty.
- Burden of proof: The duty of the prosecution to prove that the defendant committed the crime for which he or she has been charged.
- Standard of proof: The level of evidence needed to convince the court of a person's guilt. This level can vary based on the degree of the alleged crime. The standard for a murder case is "Beyond a reasonable doubt."
- Reasonable doubt: In a criminal case, prosecutors must present sufficient evidence to overcome the presumption of innocence and prove a defendant's guilt "beyond a reasonable doubt." In other words, no reasonable doubt about the defendant's guilt could exist in the mind of the judge or jury based on the evidence presented.
- Hearsay evidence: A statement provided by someone who did not witness an event. Instead, someone else told him or her what happened. Such evidence is not usually allowed in court.
- Evidence presented in court: For a conviction to be legitimate, it must be based on the evidence presented in court and directly related to the crime.
- Circumstantial evidence: A collection of details that can point to a specific conclusion but does not provide conclusive proof. Other explanations are possible.

“The State’s Case”

Directions: Complete the questions below as you watch [Chapter 2](#): “The State’s Case” from the FRONTLINE film *Death by Fire*. Then discuss the questions that follow with your group.

As soon as the fire was out, the search for the cause of the blaze began. Investigators came to believe that this was a crime scene.

1. Why did fire investigators believe the cause of the fire wasn’t accidental?

2. What evidence did fire investigators find on the aluminum threshold plate that led them to believe the fire was deliberately started?

3. How did Willingham’s demeanor cause investigators to suspect that he might be guilty of starting the fire?

4. How did Willingham’s lack of injuries cause doubt in his story of trying to save his children?

5. How did Willingham’s court-appointed attorney feel about his innocence or guilt? What was his recommendation to Willingham about pleading guilty?

6. Why do you think Willingham refused to plead guilty to avoid the death penalty, despite pressure from the police and his attorney to do so?

7. What details were provided by jailhouse informant Johnny Webb? How did his testimony and the posters in Willingham's room further implicate him as guilty?

8. What were the details of Stacy Willingham's statements during the trial?

9. How did Todd Willingham's treatment of his family possibly affect the way the jury viewed the evidence?

Discussion Questions:

- Review the state's evidence and identify which items are related to the fire investigation, which are related to Willingham's personal relationships, and which represent hearsay evidence of someone testifying about what another person has said. Which of these do you think is the most credible in a court of law?
- Todd Willingham's behavior toward his wife was described as abusive. How much does this lend credibility to the charge against him of the murder of his children?
- Do you believe that Willingham's lack of injuries and police investigator Jimmie Hensley's observation that Willingham lacked any remorse are evidence of Willingham's guilt?
- How important do you think the testimony was from jailhouse informant Johnny Webb?
- Why do you think prosecutors believed Webb's testimony was credible? Why might it not be?

“Re-examining the Case”

Directions: Complete the questions below as you watch [Chapter 5](#): “Re-examining the Evidence” from the FRONTLINE film *Death by Fire*. Then discuss the questions that follow with your group.

During the years after Todd Willingham was convicted of arson, there had been dramatic change in the science of arson investigation. ... The change in arson science began when scientists set their own fires and studied how they burned. ... Fire scientist Dr. Gerald Hurst concluded the original investigators had not eliminated accidental causes. He had come to believe Todd Willingham was not guilty.

1. In the opinion of John Lentini, what was the problem with having firefighters serve as the primary investigators of a fire, as was the case in the Willingham fire?

2. How do fire scientists investigate fires? How does this lend credibility to their investigations of fire?

3. According to fire science investigators, how had the state’s initial fire investigators misread the burn patterns?

4. How was the re-examination of the liquid accelerant on the threshold door explained by the fire scientists?

5. According to fire science investigators, how did the nature of a flashover fire explain Todd Willingham's lack of injuries or burns to his feet?
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6. What explanation and evidence did the fire scientists present that the fire might have been started accidentally?
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7. What was Dr. Gerald Hurst's conclusion as to whether Todd Willingham was responsible for the fire?
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Subsequent Events:

- Willingham's appeals attorney Walter Reaves filed a series of emergency last-minute appeals to stay Willingham's execution and have a court re-examine the new evidence.
- Stacy Willingham told reporters that she now believed her husband had murdered their children. The statement was made after she and Todd quarreled over his request to be buried with his children.
- One day before the execution, prosecutors filed an affidavit signed by Stacy's brother claiming that, according to Stacy, Todd Willingham had allegedly confessed to starting the fire at his final meeting with Stacy.
- Texas Gov. Rick Perry would not use his authority to delay the execution.
- On Feb. 17, 2004, at 6:20 p.m., Todd Willingham was executed by lethal injection.

Discussion Questions:

- How credible do you think fire science is in investigating the cause of a fire? Do you think fire investigators who use these techniques are more, less or about the same in their accuracy as firefighters who are at the scene of a fire?
- According to fire science investigators, the state's initial fire investigators had misread the burn pattern on the floor. Explain why this discovery was important.

- According to fire science investigators, the nature of a flashover fire explains why Todd Willingham's feet weren't burned. How does this evidence affect the initial fire investigators' assumption about the cause of the fire?
- According to fire science investigators, there were signs that the fire might have been started accidentally. How might this evidence have changed the way the initial fire investigators viewed the fire?

Analyzing the Case

Directions: In this activity, your group will role-play a judicial examination board that is reviewing the case of Todd Willingham to determine if he was convicted properly. After viewing and taking notes on both FRONTLINE video chapters, consider the evidence from both investigations using the chart below. After each point of evidence, place a checkmark indicating whether you feel the state's case or the re-examination of the evidence is more credible. Then provide your conclusion as to whether the state proved Willingham's guilt, and provide reasons for your conclusion.

Key Evidence	The State's Case	Re-examining the Evidence
Explanation of the liquid accelerant on the aluminum threshold plate		
Explanation for Willingham's lack of burns or injuries		
Explanation of the burn patterns on the floor		

From the evidence of both investigations, do you feel Todd Willingham was guilty of starting the fire and murdering his children? Provide reasons for your conclusion.