

10.3.1

Lesson 2

Introduction

In this lesson, students read and analyze *The Immortal Life of Henrietta Lacks*, pp. 27–33 from “After her visit to Hopkins, Henrietta went about life as usual” to “They were sure Henrietta’s cells would die just like all the others” in which Skloot further surfaces ideas and events related to the story of Henrietta Lacks and her “contribution” to human tissue research. Students analyze the text through reading and evidence-based discussions, with specific attention paid to how Skloot unfolds the series of events and ideas, describing the advent of the study that immortalizes Henrietta’s cells, using both science and Henrietta’s narrative to provide the account.


Analysis and evidence-based discussions inform students’ completion of the lesson assessment, the Tracking Events and Ideas Tool. Specifically, the tool helps students represent how the science behind human tissue research and the story of Henrietta Lacks converge to create the first immortal line of human cells. For homework, students craft a 1–2 paragraph response explaining how the events and ideas communicated in the reading (including the order in which they were introduced and the connections drawn between them) work together to shape the culminating event of the excerpt based on students’ analysis of the Tracking Events and Ideas Tool.

Standards

Assessed Standard(s)	
RI.9-10.3	Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.
Addressed Standard(s)	
W.9-10.9.b	<p>Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>b. Apply <i>grades 9–10 Reading standards</i> to literary nonfiction (e.g., “Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning”).</p>

L.9-10.4.a	<p>Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grades 9–10 reading and content</i>, choosing flexibly from a range of strategies.</p> <p>a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.</p>
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Assessment

Assessment(s)
<p>Student learning is assessed via the Tracking Events and Ideas Tool at the end of the lesson. Students use the tool to help them analyze how Skloot unfolds the events leading to the culminating event in this excerpt, including the order in which the points are made and the connections that are drawn between them.</p> <p> The Tracking Events and Ideas Tool serves as the assessment for this lesson.</p>
High Performance Response(s)
<p>A High Performance Response should:</p> <ul style="list-style-type: none"> See Model Tracking Events and Ideas Tool for student responses.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
<ul style="list-style-type: none"> biopsy (n.) – the removal for diagnostic study of a piece of tissue from a living body epidermoid carcinoma (n.) – cancer that begins in squamous cells. (Squamous cells are thin, flat cells that look like fish scales, and are found in the tissue that forms the surface of the skin, the lining of the hollow organs of the body, and the lining of the respiratory and digestive tracts.) menopause (n.) – the period of permanent cessation of menstruation, usually between the ages of 45–55 endometriosis (n.) – the presence of uterine lining in other pelvic organs, especially the ovaries, characterized by cyst formation, adhesions, and menstrual pains gynecology (n.) – the branch of medical science that deals with the health maintenance and diseases of women, especially of the reproductive organs pipette (n.) – a slender graduated tube used in a laboratory for measuring and transferring liquids from one container to another hysterectomy (n.) – excision of the uterus

- indigent (adj.) – needy, poor, impoverished
- dearth (n.) – an inadequate supply; scarcity; lack
- radioactive (adj.) – of, pertaining to, exhibiting, or caused by radioactivity
- dilated (v.) – made wider or larger; caused to expand
- catheter (n.) – a flexible or rigid hollow tube employed to drain fluids from body cavities or to distend body passages

Vocabulary to teach (may include direct word work and/or questions)

- heckled (v.) – to harass (a public speaker, performer, etc.) with impertinent questions, gibes, or the like; badger
- consent (v.) – to permit, approve, or agree

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text: <ul style="list-style-type: none"> • Standards: RI.9-10.3, W.9-10.9.b, L.9-10.4.a • Text: <i>The Immortal Life of Henrietta Lacks</i>, pp. 27–33 	
Learning Sequence: <ol style="list-style-type: none"> 1. Introduction of Lesson Agenda 2. Homework Accountability 3. Masterful Reading 4. Reading and Discussion 5. Tracking Events and Ideas Tool and Assessment 6. Closing 	<ol style="list-style-type: none"> 1. 5% 2. 10% 3. 10% 4. 40% 5. 25% 6. 10%

Materials

- Copies of the Tracking Events and Ideas Tool for each student
- Student copies of the 10.3.1 Unit Glossary (refer to 10.3.1 Lesson 1)

Learning Sequence

How to Use the Learning Sequence	
Symbol	Type of Text & Interpretation of the Symbol
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	<i>Italicized text indicates a vocabulary word.</i>
▶	Indicates student action(s).
💬	Indicates possible student response(s) to teacher questions.
❗	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda

5%

Begin by reviewing the agenda and assessed standard for this lesson: RI.9-10.3. In this lesson, students read *The Immortal Life of Henrietta Lacks*, pages 27–33 from “After her visit to Hopkins, Henrietta went about life as usual” to “They were sure Henrietta’s cells would die just like all the others” and analyze how Skloot unfolds her analysis of ideas and events surrounding the genesis of HeLa. Students apply their analysis to track the unfolding of events, the order in which points are made, and ideas and the connections that are drawn between them using a Tracking Events and Ideas Tool.

- ▶ Students look at the agenda.

Activity 2: Homework Accountability

10%

Instruct students to take out their homework from the previous lesson where they were asked to preview *The Immortal Life of Henrietta Lacks*, pages 27–33 from “After her visit to Hopkins, Henrietta went about life as usual” to “They were sure Henrietta’s cells would die just like all the others” and annotate for evidence of Skloot’s unfolding of a series of events and ideas.

Direct students to choose 3–4 annotations that best exemplify Skloot’s unfolding of a series of events and ideas, and complete a Turn-and-Talk in pairs.

- ▶ Students take out their homework and discuss 3–4 annotations in pairs.
- ❗ In keeping with varied references throughout *The Immortal Life of Henrietta Lacks*, this unit may refer to The Johns Hopkins Hospital as: Hopkins, Johns Hopkins, Johns Hopkins Hospital, or The Johns Hopkins Hospital.

Student annotation may include:

- Star next to the first paragraph from “After her visit to Hopkins, Henrietta went about life” to “Epidermoid carcinoma of the cervix, Stage I” noting when Henrietta finds out she has cancer (p. 27).
- Star next to the lines in paragraph two from “By chance, when Henrietta showed up at Hopkins” to “cervical cancer, and how best to treat it” acknowledging the debate over what qualifies as cervical cancer and how best to treat it (p. 27).
- Star near the paragraph that begins with “In 1951, most doctors in the field” and ends with “but his critics called it extreme and unnecessary” noting discord between the way TeLinde and the rest of the medical community treat cervical cancer during this time period (p. 28).
- Star by the paragraph that begins with “Diagnosing carcinoma in situ had only been possible” and ends on page 29 with “and cervical cancer would be almost entirely preventable” explaining the advances in cancer detection facilitated by the development of the Pap smear (p. 28–29).
- Star next to the paragraph that begins “At that point, more than 15,000 women” and ends with “they often didn’t know how those changes should be treated” noting the prevailing confusion of cervical cancer diagnosis and the lack of patient knowledge at the time (p. 29).
- Star next to the paragraph that begins with “Not long before Henrietta’s first exam” and ending with “to see how many initially had carcinoma in situ” detailing TeLinde’s plan for research and setting the stage for the convergence of Henrietta’s life and science (p. 29).
- Exclamation point next to the lines “Like many doctors of his era, TeLinde often used patients” and continuing on to page 30 ending with “large indigent black population, had no dearth of clinical material” for setting up the issues of race and informed consent that develop through the remainder of the excerpt (p. 29–30).
- Star next to the lines beginning with “In addition to that study, TeLinde thought” and ending with “something never done before—he could compare all three” noting TeLinde’s need for a vehicle to validate his hypothesis (p. 30).
- Star near the sentence beginning with “The Geys were determined to grow the first *immortal* human cells” noting the Geys background interest in the research they would partner in with TeLinde (p. 30).
- Exclamation point next to the sentence beginning with “And TeLinde began collecting samples from any woman” noting the events that tie Henrietta into TeLinde and Gey’s research (p. 30).
- Star near the last paragraph from “One nurse placed the Brack plaques on a stainless” to “staff dressed in white gowns, hats, masks, and gloves” noting the separate treatment of African-American patients (p. 32).
- Star next to the lines “But first—though no one had told Henrietta that TeLinde was collecting” reinforcing the lack of consent regarding Henrietta’s tissue (p. 33).

- Star the quote from Henrietta’s chart that read “Henrietta Lacks . . . Biopsy of cervical tissue . . . Tissue given to Dr. George Gey” noting that records were kept of the tissue given to researchers despite nothing being said to Henrietta or her family (p. 33).

Remind students that annotating helps them keep track of evidence they use later in the End-of-Unit Assessment and Performance Assessment, which focus on the development of central ideas.

- ① This focused annotation supports students’ engagement with W.9-10.9.b, which addresses the use of textual evidence in writing.

Activity 3: Masterful Reading

10%

Have students listen to a Masterful Reading of *The Immortal Life of Henrietta Lacks*, from “After her visit to Hopkins, Henrietta went about life as usual” to “They were sure Henrietta’s cells would die just like all the others” (pp. 27–33).

- ▶ Students follow along, reading silently.
- ① This section introduces potentially charged issues, like the treatment of African-Americans in mid-twentieth century America, as well as the motives behind medical research, and the notion of tissue collection. Sensitivity to the emotional climate in the classroom for this and subsequent lessons may necessitate more lengthy or directed discussions.

Activity 4: Reading and Discussion

40%

Explain that the focus of this lesson is to analyze how Skloot unfolds her analysis of ideas and events, including the connections she draws between them.

- ▶ Students listen.
- Instruct students to form pairs. Post or project each set of questions below for students to discuss. Instruct student pairs to reread from “After her visit to Hopkins, Henrietta went about life as usual” to “But few in the field believed him” (pp. 27–28) and answer the following question before sharing out with the class.
- ▶ Students form pairs and reread pages 27–28.
 - ① In paragraph 1, “Jones” is mentioned as the individual who received Henrietta’s biopsy results. “Jones” refers to Dr. Howard Jones, the gynecologist who first saw Henrietta at Johns Hopkins gynecology clinic.

Encourage student pairs to annotate and take notes on the evidence-based discussion.

- ① Instruct students to consult the 10.3.1 Unit Glossary for the terms found in today's reading, including: *biopsy, epidermoid carcinoma, menopause, endometriosis, gynecology, pipette, hysterectomy, indigent, dearth, radioactive, dilated, and catheter.*

Why does Skloot use the words “by chance” to describe Henrietta going to Johns Hopkins gynecology clinic on page 27?

- ☛ Skloot uses the words “by chance” because she wants readers to understand it was the perfect time for Henrietta to go to Johns Hopkins with her specific health problem. She states: “By chance, when Henrietta showed up at Hopkins complaining of abnormal bleeding, Jones and his boss, Richard Wesley TeLinde, were involved in a heated nationwide debate over what qualified as cervical cancer and how best to treat it” (p. 27). All of these variables (time, place, people, and circumstance) came together “by chance” to propel science in a new direction.

Lead a brief whole-class discussion of student responses.

Instruct student pairs to reread from “Cervical carcinomas are divided into two types” to “needed aggressive treatment, so their cancer didn’t become invasive” (pp. 28–29) and discuss the following question before sharing out with the class.

What was TeLinde’s motivation for research?

- ☛ TeLinde wanted “to prove that women with carcinoma in situ needed aggressive treatment” (p. 29) just like invasive carcinoma patients received. According to Skloot, “He argued that this would drastically reduce cervical cancer deaths” (p. 28). He also wanted doctors to know how to correctly interpret Pap smear results and to establish appropriate treatment protocol in order to “minimize . . . ‘unjustifiable hysterectomies’” (p. 29).
- ① Consider reviewing Skloot’s definition of *carcinoma in situ*, “which derives from the Latin for ‘cancer in its original place’.”

Lead a brief whole-class discussion of student responses.

Instruct student pairs to reread from “Not long before Henrietta’s first exam, TeLinde presented his argument” to “who happened to walk into Hopkins with cervical cancer. Including Henrietta” (pp. 29–30) and discuss the following questions before sharing out with the class.

Why does Telinde return to Hopkins to plan a study?

- 💬 Telinde plans the study after he is heckled off the stage when he presents “his argument about carcinoma in situ to a major meeting of pathologists” (p. 29).

What words (synonyms) could replace *heckled* in this context?

- 💬 Heckled could mean laughed at, jeered, or booed.
- ① Consider drawing students’ attention to their application of standard L.9-10.4.a through the process of using context to make meaning of a word.

Instruct student pairs to refer to the text from “Like many doctors of his era, TeLinde” to “large indigent black population, had no dearth of clinical material” (pp. 29–30) and highlight or circle the different terms used to reference human beings in this paragraph.

- 💬 Student responses should include:
 - patients
 - research subjects
 - black population
 - clinical material

What cumulative impact do these word choices have on understanding the doctors’ perspective? Why might doctors have had this perspective?

- 💬 Doctors viewed people more scientifically than humanly, and justified their behavior based on a patient’s inability to pay. Skloot notes that “Like many doctors of his era, TeLinde often used patients from the public wards for research, usually without their knowledge” (p. 29) and goes on to say: “Many scientists believed that since patients were treated for free in the public wards, it was fair to use them as research subjects as a form of payment” (p. 30).

Explain the connections between TeLinde’s research and the research of George Gey.

- 💬 Skloot notes that if TeLinde “could prove that carcinoma in situ and invasive carcinoma looked and behaved similarly in the laboratory he could end the debate, showing that he’d been right all along” (p. 30). Skloot also notes that George Gey and his wife “were determined to grow the first *immortal* human cells” (p. 30). She further explains the relationship between TeLinde and George Gey by writing, “So when Telinde offered him a supply of cervical cancer tissue in exchange for trying to grow some cells, Gey didn’t hesitate” (p. 30). TeLinde needed Gey so he could prove his point and change cervical cancer diagnosis/treatment methods. Gey needed TeLinde to supply him with cell tissue so he could grow the first immortal human cells.

Explain the connection between Henrietta and the research of TeLinde and Gey.

- Henrietta went to Johns Hopkins for treatment at the same time TeLinde had partnered with Gey, so her tissue was collected for research like “any woman who happened to walk into Hopkins with cervical cancer” (p. 30).

Lead a brief whole-class discussion of student responses.

Instruct student pairs to reread from “On February 5, 1951, after Jones got Henrietta’s biopsy report” (p. 31) to “They were sure Henrietta’s cells would die just like all the others” (p. 33), and discuss the following questions before sharing out with the class.

What was the importance of the “Operation Permit” Henrietta signed on page 31?

- Henrietta was agreeing to “any operative procedures and under any anesthetic either local or general that they may deem necessary” (p. 31).

What could the word *consent* mean?

- Consent means to agree with something or approve it.
- ① **Differentiation Consideration:** Consider discussing the language of the Operation Permit if students struggle with the previous two questions.
- ① Consider drawing students’ attention to their application of standard L.9-10.4.a through the process of using context to make meaning of a word.
- ① The word *consent* is important in this text and will be explored further in subsequent text-analysis lessons. The topic of informed consent will surface and be discussed as a possible research topic later in the unit. Students should become familiar with this key word as they progress through the module; consider additional practice with this word in other contexts, if possible.

What is Henrietta not told about during her “first treatment” (pp. 32–33)?

- Henrietta is not told that tissue samples will be taken from her cervix. Skloot writes that while “no one had told Henrietta that TeLinde was collecting samples or asked if she wanted to be a donor . . . Wharton picked up a sharp knife and shaved off two dime-sized pieces of tissue from Henrietta’s cervix” (p. 33).

How does this information connect to the Operation Permit Henrietta signed when she was admitted for treatment?

- She consented to “any operative procedures” deemed “necessary in the proper surgical care and treatment” (p. 31) of her cancer in the Operation Permit, but she neither knew about nor gave consent to tissue donation during her treatment.

What connections does Skloot further develop between Henrietta, TeLinde, and George Gey in this section of text?

- Henrietta’s life intersects with the research of TeLinde and Gey after a doctor shaves off pieces of her cervix tissue and has a resident take “the dish with the samples to Gey’s lab” (p. 33).

Lead a brief whole-class discussion of student responses.

Activity 5: Tracking Events and Ideas Tool and Assessment

25%

Distribute the Tracking Events and Ideas Tool.

- Students examine the Tracking Events and Ideas Tool.

Explain to students that this tool helps them analyze how Skloot unfolds the events and ideas leading to the culminating event in this excerpt, including the order in which the points are made and the connections that are drawn between them. Ask students the following questions:

What are the two series of events addressed simultaneously throughout this excerpt?

- Henrietta’s story of going to Johns Hopkins for cancer treatments and TeLinde and Gey’s converging research on cervical cancer and immortal cell development.

What is the culminating event in this excerpt?

- Dr. Wharton takes Henrietta’s tissue, without her consent, and gives it to George Gey for research purposes.

Explain to students that by using this tool, they trace the series of key events and ideas Skloot unfolds in this excerpt that lead up to the culminating event. Students should focus on the order in which the events and ideas are unfolded and the connections Skloot draws between them.

- Students listen.

Explain to students that the tool is divided into two columns where they are to track information according to how it appears in the excerpt. In the left column, students track events and ideas related to one series of events and ideas in the text; in the right column, students track events and ideas related to another series of events and ideas in the text. Both columns lead to the culminating event that occurs at the end of the excerpt where the columns merge.

- Students individually complete the Tracking Events and Ideas Tool.

- ① Consider modeling this tool to support student comprehension; the model tool is available at the end of the lesson.
- ① This tool is not collected at the end of the lesson because students need to use the tool for the homework. Consider holding students accountable for this lesson assessment by monitoring students' completion of the tool over the course of the lesson.

Activity 6: Closing

10%

Display and distribute the homework assignment. For homework, instruct students to craft a 1–2 paragraph response explaining how the events and ideas communicated in the reading (including the order in which they were introduced and the connections between them) work together to shape the culminating event of the excerpt based on their analysis of the Tracking Events and Ideas Tool.

Ask students to use this lesson's vocabulary wherever possible in their written responses.

- ▶ Students follow along.

Homework

Based upon today's Masterful Reading and text analysis, and upon completion of the Tracking Events and Ideas Tool, write 1–2 paragraphs explaining how the events and ideas communicated in the excerpt (including the order in which they were introduced and the connections between them) work together to shape the culminating event. Use the lesson's vocabulary wherever possible in your written response.

Tracking Events and Ideas Tool

Name:		Class:		Date:	
Events and Ideas #1: _____ (include page numbers where information is found)		Events and Ideas #2: _____ (include page numbers where information is found)			
Culminating Event/Page Number					

Model Tracking Events and Ideas Tool

Name:		Class:		Date:	
Events & Ideas #1: Scientific Research (include page numbers where information is found)			Events and Ideas #2: Henrietta's Story (include page numbers where information is found)		
Debate about what qualifies as cervical cancer and how to best treat it (p. 27)			Dr. Jones gets Henrietta's pathology report: Epidermoid carcinoma of the cervix, stage I (Henrietta's cervical cancer diagnosis) (p. 27)		
TeLinde's theory (1951) about carcinoma in situ made possible by Pap smear test (p. 28)			Henrietta arrives at Hopkins in 1951 (p. 28)		
TeLinde wants to minimize "unjustifiable hysterectomies" by documenting what was not cancer and to prove carcinoma in situ needs aggressive treatment (p. 29)			Patients from public wards used for research without their knowledge. Many doctors believe that this is fair use since "patients were treated for free" (pp. 29-30)		
TeLinde's argument about carcinoma in situ rejected by peers so he plans a study to determine if carcinoma in situ leads to invasive cervical cancer (p. 29)			Henrietta goes to Johns Hopkins for her first cancer treatment and signs an Operation Permit, consenting to the surgical care she will receive (p. 31)		
TeLinde (with Jones's help) finds that 62% of invasive cervical cancers began as carcinoma in situ. TeLinde then wants to find a way to grow living samples from normal and cancerous cervical tissues to compare and prove he had been right (p. 30)			Henrietta's cancer is treated with topical radium, the standard cancer treatment of the time (p. 32)		
TeLinde calls George Gey, head of tissue culture research at Hopkins; they agree to a partnership that provides Gey with the tissue samples he needs for his attempts to grow the first line of immortal human cells (p. 30)			While Henrietta is under anesthesia for the radium treatment, her doctor removes two tissue samples from her cervix, without her knowledge or consent to be a tissue donor (p. 33)		
TeLinde begins collecting cells from any woman with cervical cancer seeking healthcare at Johns Hopkins (p. 30)					
Culminating Event/Page Number					
Henrietta's cervical tissue is taken without her consent and delivered to George Gey's lab (p. 33)					