

10.3.1**Lesson 1****Introduction**

In this first lesson of the unit and module, students are introduced to the focus of the module: building evidence-based arguments through inquiry-based research. Students listen to a Masterful Reading of an excerpt from the prologue of Rebecca Skloot's *The Immortal Life of Henrietta Lacks*, focusing on the connections Skloot makes between Henrietta Lacks the person and the scientific advancement her cells supported.

In Unit 1, students begin learning about a specific approach to research that is developed and completed throughout Units 2 and 3. This module addresses research as an iterative, non-linear process, designed to develop students' skills in crafting evidence-based arguments on issues of interest. In this unit, students read and analyze a seed text, *The Immortal Life of Henrietta Lacks*, to identify topics that spark inquiry and provide entry points into the research process with which they engage throughout the module. The intent of this unit is to model how to initiate a process of inquiry-based research using texts that are rich enough to provide claims, counterclaims, and foster varying points of argumentation. In this research module, students are expected to read and analyze sources during in-class work and for homework.


In this lesson, students begin reading and analyzing the prologue of *The Immortal Life of Henrietta Lacks* (pp. 1–4) from “There’s a photo on my wall of a woman I’ve never met” to “There has to be more to the story.” Students focus on the connection between Henrietta Lacks and the scientific advancement provided by the research of her “immortal” cells. The assessment in this lesson is a Quick Write prompt: How does Skloot unfold events in this excerpt and what connections does she draw among these events? For homework, students preview 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” and annotate for evidence of Skloot’s strategic unfolding of events and ideas.

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 grades 9–10 Reading standards 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>

Assessment

Assessment(s)
<p>Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, citing textual evidence to support analysis and inferences drawn from the text.</p> <ul style="list-style-type: none"> How does Skloot unfold events in this excerpt and what connections does she draw among these events? <p> Throughout this unit, Quick Writes will be evaluated using the Short Response Rubric.</p>
High Performance Response(s)
<p>A High Performance Response should:</p> <ul style="list-style-type: none"> Describe how Skloot unfolds events in this excerpt (e.g., Skloot first introduces readers to Henrietta Lacks, then she discusses the scientific/medical impact made by Henrietta’s cells, and finally Skloot shares how she personally became interested in Henrietta’s story). Explain the connections Skloot draws among the events (e.g., Skloot introduces Henrietta Lacks, the person, with the statement, “There’s a photo on my wall of a woman I’ve never met . . .,” (p.1) and then discusses her cells and their profound medical and scientific contributions by saying, “I’ve spent years staring at that photo, wondering . . . what she’d think about cells from her cervix living on forever—bought, sold, packaged and shipped by the trillions to laboratories all around the world” (pp.1–2). Skloot then highlights these contributions before sharing with readers how she personally connects to the story of Henrietta and her cells by discussing, “I first learned about HeLa cells and the woman behind them in 1988, thirty-seven years after her death, when I was sixteen and sitting in a community college biology class” (p.2). Skloot then returns readers to Henrietta, the human being, as she is left wondering about Henrietta’s personal story.).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)

- cervix (n.) – any neck-like part, especially the constricted lower end of the uterus
- chemotherapy (n.) – the treatment of disease by means of chemicals that have a specific toxic effect upon disease-producing microorganisms or that selectively destroy cancerous tissue
- cloning (n.) – the process of producing a clone (a cell, cell product, or organism that is genetically identical to the unit or individual from which it was derived)
- gene mapping (n.) – any of a number of methods used to construct a model of the linear sequence of genes of a particular chromosome
- in vitro fertilization (n.) – a specialized technique by which an ovum, especially a human one, is fertilized by sperm outside the body, with the resulting embryo later implanted in the uterus for gestation
- herpes (n.) – any of several diseases caused by herpes virus, characterized by eruption of blisters on the skin or mucous membranes
- influenza (n.) – an acute, commonly epidemic disease, occurring in several forms, caused by numerous rapidly mutating viral strains and characterized by respiratory symptoms and general prostration
- hemophilia (n.) – any of several X-linked disorders, symptomatic chiefly in males, in which excessive bleeding occurs owing to the absence or abnormality of a clotting factor in the blood
- Parkinson's disease (n.) – a common neurologic disease believed to be caused by deterioration of the brain cells that produce dopamine, occurring primarily after the age of 60, characterized by tremors, especially of the fingers and hands, muscle rigidity, shuffling gait, slow speech, and a masklike facial expression
- lactose digestion (n.) – the process of digesting a disaccharide that is present in milk
- sexually transmitted disease (n.) – any disease characteristically transmitted by sexual contact
- appendicitis (n.) – inflammation of the vermiform appendix
- genome (n.) – a full set of chromosomes; all the inheritable traits of an organism
- workhorse (n.) – person or thing that works tirelessly at a task, assumes extra duties, etc.

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

- immortal (adj.) – not mortal; not liable or subject to death

① Due to the volume of Tier 3/discipline-specific vocabulary in this text, students will be provided with a 10.3.1 Unit Glossary in this lesson.

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. 1–4) 	
Learning Sequence: <ol style="list-style-type: none"> Introduction of Lesson Agenda Homework Accountability Masterful Reading Reading and Discussion Quick Write Closing 	<ol style="list-style-type: none"> 10% 5% 20% 50% 10% 5%

Materials

- Copies of the Short Response Rubric and Checklist for each student
- Copies of the 10.3.1 Unit Glossary for each student

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

10%

Begin by reviewing the agenda and assessed standard for this lesson: RI.9-10.3. Today, students experience a new text called *The Immortal Life of Henrietta Lacks* through a Masterful Reading of a small excerpt and begin the process of reading pages 1–4 closely from “There’s a photo on my wall of a woman I’ve never met” to “There has to be more to the story” to determine how the author unfolds key events and draws connections between them.

- ▶ Students look at the agenda.

Share with students that the focus of this module is to engage in an inquiry-based, iterative process for research to build evidence-based arguments. Inform students that they are to explore topics that have multiple claims and perspectives by gathering and analyzing research to establish a central claim of their own and to generate an evidence-based perspective. This serves as the foundation of a written research-based argument paper that synthesizes and articulates several claims with valid reasoning and relevant and sufficient evidence. Students’ writing is strengthened through a strategic process of editing and revision.

Share with students the End-of-Unit Assessments and the Module Performance Assessment. Inform students that their work over the next several weeks should prepare them for these assessments. Briefly introduce the unit and the text: *The Immortal Life of Henrietta Lacks* by Rebecca Skloot. Inform students that this unit focuses on reading and analyzing excerpts from the book to consider the development of central ideas and authorial purpose and choices through specific textual details. Additionally, students begin the research process by surfacing and tracking issues, generating inquiry questions, examining central and supporting claims, identifying areas of investigation, and analyzing arguments using Skloot’s text as the initial resource.

- ▶ Students listen.

Activity 2: Homework Accountability

5%

Explain to students that the Accountable Independent Reading requirement is suspended during this module. Instead, for Unit 1 reading homework, students periodically preview *The Immortal Life of Henrietta Lacks*, while also beginning to research by independently reading possible sources for a variety of topics that arise from the Skloot text. Explain to students that in Unit 2, the volume of independent reading comes from students’ searches related to their research topic/problem-based question. Students read a variety of academic sources to deepen their understanding of their research topic/problem-based question.

- ▶ Students listen.

Activity 3: Masterful Reading

20%

Have students listen to a Masterful Reading of *The Immortal Life of Henrietta Lacks* (pp. 1–4) from “There’s a photo on my wall of a woman I’ve never met” to “There has to be more to the story.” Instruct students to read along in their text.

① The term “HeLa” is pronounced hee lah.

- ▶ Students follow along, reading silently.

After the Masterful Reading, ask students to independently write down initial reactions and questions they have about the text. Give students 3–5 minutes to write down initial reactions and questions.

🗣 Student questions may include:

- What made Henrietta’s cells immortal?
- How did her cells help in the treatment of medical diseases and conditions?
- Have her cells helped cure any diseases or conditions?
- What happened to the five children she left motherless?
- Why are her cells in laboratories all over the world?
- What was significant about the code name HeLa?

① Assure students that any question related to the text is valid. If students are struggling with questions, encourage them to think about unknown vocabulary, textual details that seem confusing, or any information they still want to know from the text after this initial reading.

Ask students to share out their initial questions. Record the questions on the board or on chart paper. Share with students that it is okay to have questions as they engage in a complex text and that questions like these initiate the inquiry-based research process. As students read, they can look for answers, or be mindful of what questions remain unanswered.

- ▶ Students share out their initial questions.

① Continue to return to these initial questions as Unit 1 progresses, addressing the answers as they emerge from the text or research.

Activity 4: Reading and Discussion

50%

Instruct students to form pairs. Post or project each set of questions below for students to discuss.

Inform students that they are to reread closely the first four pages of *The Immortal Life of Henrietta Lacks* and analyze how Skloot unfolds and draws connections between key events.

- ▶ Students listen.

Distribute the 10.3.1 Unit Glossary. Inform students that as they read the text excerpts in this unit, they may come across many unfamiliar discipline-specific words. Explain that the 10.3.1 Unit Glossary provides many of these definitions and is a reference for students to use while reading and analyzing the text. Explain to students that many of these words are examined further as they identify issues for research in subsequent lessons.

► Students examine the 10.3.1 Unit Glossary.

- ① Instruct students to consult the 10.3.1 Unit Glossary as they read and analyze today's text excerpt. The terms that can be found in today's reading include: *cervix, chemotherapy, cloning, gene mapping, in vitro fertilization, herpes, influenza, hemophilia, Parkinson's disease, lactose digestion, sexually transmitted disease, appendicitis, genome, and workhorse.*

Instruct student pairs to reread pp. 1–2 from “There’s a photo on my wall of a woman I’ve never met” to “sold, packaged, and shipped by the trillions to laboratories around the world” and answer the following questions before sharing out with the class. Students can also box any unfamiliar words at this time.

- ① Remind students to take notes and annotate the text as they engage in the following evidence-based discussion. This annotation supports students’ engagement with W.9-10.9.b, which focuses on the use of textual evidence in writing.
- ① Consider reviewing the annotation codes previously taught in Module 10.1, including:
- Put a question mark next to a section you are questioning (?).
 - Write in the margin at the top or bottom of the page to record questions (and perhaps answers) that a passage raises in your mind.
 - Use an exclamation point for areas that remind you of another text, strike you in some way, or surprise you (!).
 - Star ideas that seem important or that may support your thesis writing later (*).
 - Box or circle words and phrases that you do not know or that you find confusing. Rewrite a word or phrase you might have figured out.
 - Add an arrow to make connections between points.

In paragraph 1, how does Skloot connect Henrietta and the future of medicine?

- 💬 Henrietta and the future of medicine are connected by the tumor growing inside her, according to Skloot’s statement “a tumor that would leave her five children motherless and change the future of medicine” (p. 1).

How has Henrietta been identified in pictures that have appeared “hundreds of times in magazines and science textbooks” (p. 1)? What is the impact of how Henrietta has been identified?

- 💬 Student responses may include:

- She is usually identified by another name, “Helen Lane” (p. 1) or “she has no name at all” (p. 1). She is usually called HeLa, “the code name given to the world’s first immortal human cells – *her* cells” (p. 1).
- The impact is that Henrietta is not identified as a person but by her cells’ “code name” (p. 1), revealing that science is more important than the human being behind the cells.

To whom does the abbreviation HeLa refer?

- HeLa refers to “Henrietta Lacks” (p. 1).

What does Skloot mean when she describes HeLa cells as “immortal” (p. 1)? Cite evidence from the text to support your understanding of the word “immortal”.

- Skloot says Henrietta’s cells are “immortal” (p. 1), and then wonders what Henrietta would “think about cells from her cervix living on forever” (p. 2), so *immortal* refers to something that will never die or something that just keeps going on in some way.

- ① To ensure student understanding of the meaning of *immortal*, contrast it with the word *mortal* and discuss how the two words are opposite in meaning.
- 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.

Lead a brief whole-class discussion of student responses.

Instruct student pairs to reread pages 2–3, from “I’ve tried to imagine how she’d feel knowing that her cells” to “our tissues—muscle, bone, blood—which in turn make up our organs” and discuss the following question before sharing out with the class.

How have Henrietta’s cells “helped with some of the most important advances in medicine” (p. 2)?

- Skloot shares that Henrietta’s cells went up in space to help study zero gravity and helped with medical advances including “the polio vaccine, chemotherapy, cloning, gene mapping, in vitro fertilization” (p. 2).

- ① Polio vaccine is defined and further explored in 10.3.1 Lesson 4.

Lead a brief whole-class discussion of student responses.

Instruct student pairs to read the paragraphs, “I first learned about HeLa cells and the woman behind them” (p.2) to “They make up all our tissues —muscle, bone, blood— which in turn make up our organs” (p.3) and discuss the following question before sharing out with the class.

What events occur in these paragraphs, and how are they connected?

- ☛ The events that occur provide readers with an understanding of the path that brought Skloot to Henrietta and Henrietta’s cells. Skloot talks about the genesis of her research on HeLa cells by stating “I first learned about HeLa cells and the woman behind them in 1988, thirty-seven years after her death, when I was sixteen and sitting in a community college biology class” (p. 2), and goes on to detail the circumstances that brought her to that class saying “I was taking Defler’s class for high-school credit” (p. 2), and the content that led to her first hearing the name Henrietta Lacks, stating about her instructor “he wanted us to understand . . . that cells are amazing things” (p. 3).

Lead a brief whole-class discussion of student responses.

Instruct student pairs to reread from “Under the microscope, a cell looks a lot like a fried egg” to “where he wrote two words in enormous print: HENRIETTA LACKS” (p. 3) and discuss the following question before sharing out with the class.

How does Skloot further develop connections between cells and cancer in this passage?

- ☛ After describing the detailed parts of a cell, cell division, and the role cells play in various body processes, Skloot says “All it takes is one small mistake anywhere in the division process for cells to start growing out of control . . . Just *one* enzyme misfiring, just *one* wrong protein activation, and you could have cancer”(p. 3).

Lead a brief whole-class discussion of student responses.

Instruct student pairs to reread from “Henrietta died in 1951 from a vicious case of cervical cancer” to “There has to be more to the story” (pp. 3–4) and discuss the following questions before sharing out with the class.

What made Henrietta’s cells different from any other previously studied cells?

- ☛ Skloot states “Scientists had been trying to keep human cells alive in culture for decades, but they all eventually died. Henrietta’s were different: they reproduced an entire generation every twenty-four hours, and they never stopped” (p. 4). Her cells are the first immortal cells grown in a laboratory.

What connects Henrietta to almost any cell culture lab in the world?

- 💬 Henrietta's cells are grown in almost every research lab. Skloot shares that her instructor said "If we went to almost any cell culture lab in the world . . . we'd probably find millions—if not billions—of Henrietta's cells in small vials on ice" (p. 4).

① Consider discussing the word meaning of *culture* in this context. In biology, *culture* is used to describe growing microorganisms or tissues in a controlled or defined medium or nutritive substance. Students encounter this word again in 10.3.1 Lesson 4.

How does Skloot relate Henrietta's cells to guinea pigs and mice?

- 💬 Student responses may include:
 - After listing all the ways Henrietta's cells were part of research, Skloot states, "Like guinea pigs and mice, Henrietta's cells have become the standard laboratory workhorses" (p. 4).
 - Like guinea pigs and mice, Henrietta's cells have been used for a wide variety of scientific research.
 - Her cells, despite doing amazing things for science and medicine, have now become cogs in the research machine, no different from guinea pigs and mice.

① **Differentiation Consideration:** If students struggle, consider discussing how guinea pigs and mice are frequently used for testing in various kinds of research. Additionally, instruct students to reference the 10.3.1 Unit Glossary for the meaning of the word *workhorse* (a person or thing that works tirelessly at a task, assumes extra duties, etc.).

What is the impact of Skloot including Defler's final quote "She was a black woman" (p. 4)?

- 💬 Skloot wants readers to connect the science of the HeLa cells to an actual person, specifically "a black woman" (p. 4).

Summarize the key events unfolded in today's excerpt, from "There's a photo on my wall of a woman I've never met" to "There has to be more to the story" (pp. 1–4).

- 💬 Student responses should include:
 - Skloot begins by introducing the picture on her wall and the name Henrietta Lacks so we know the person first before learning about her cells (p. 1). (E.g., "There's a photo on my wall of a woman I've never met, its left corner torn and patched together with tape.")
 - She details many of the scientific contributions made possible by the study of Henrietta's cells (p. 3). (E.g., ". . . helped with some of the most important advances in medicine.")
 - She explains how she became interested in the story of Henrietta's cells and explains cell structure and function (pp. 2–3). (E.g., "I first learned about HeLa cells and the woman behind them in 1988, thirty-seven years after her death.")

- The excerpt ends with Skloot refocusing the story on Henrietta and what her story might be besides her cells (p. 4). (E.g., “That’s it? That’s all we get? There has to be more to the story.”)

Lead a brief whole-class discussion of student responses.

Activity 5: Quick Write

10%

Instruct students to respond briefly in writing to the following prompt:

How does Skloot unfold events in this excerpt and what connections does she draw among these events?

Instruct students to look at their annotations to find evidence. Ask students to use this lesson’s vocabulary wherever possible in their written responses. Remind students to use the Short Response Rubric and Checklist to guide their written responses.

① Display the prompt for students to see, or provide the prompt in hard copy.

- ▶ Students independently answer the prompt, using evidence from the text.

🗨 See the High Performance Response at the beginning of this lesson.

Activity 6: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to preview *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” and annotate for evidence of Skloot’s unfolding of a series of events and ideas.

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

① Remind students to use the annotation codes introduced in Modules 10.1 and 10.2.

- ▶ Students follow along.

Homework

Preview *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” and annotate for evidence of Skloot’s unfolding of a series of events and ideas.

Short Response Rubric

Name:		Class:		Date:	
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Assessed Standard: _____

	2-Point Response	1-Point Response	0-Point Response
Inferences/Claims	Includes valid inferences or claims from the text Fully and directly responds to the prompt	Includes inferences or claims that are loosely based on the text Responds partially to the prompt or does not address all elements of the prompt	Does not address any of the requirements of the prompt or is totally inaccurate
Analysis	Includes evidence of reflection and analysis of the text	A mostly literal recounting of events or details from the text	The response is blank
Evidence	Includes relevant and sufficient textual evidence to develop response according to the requirements of the quick write	Includes some relevant facts, definitions, concrete details and/or other information from the text to develop an analysis of the text according to the requirements of the quick write	The response includes no evidence from the text
Conventions	Uses complete sentences where errors do not impact readability	Includes incomplete sentences or bullets	The response is unintelligible or indecipherable

Short Response Checklist

Name:		Class:		Date:	
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Assessed Standard: _____

Does my writing...	Did I...	✓
Include valid inferences and/or claims from the text?	Closely read the prompt and address the whole prompt in my response?	<input type="checkbox"/>
	Clearly state a text-based claim I want the reader to consider?	<input type="checkbox"/>
	Confirm that my claim is directly supported by what I read in the text?	<input type="checkbox"/>
Develop an analysis of the text?	Did I consider the author's choices, impact of word choices, the text's central ideas, etc.?	<input type="checkbox"/>
Include evidence from the text?	Directly quote or paraphrase evidence from the text?	<input type="checkbox"/>
	Arrange my evidence in an order that makes sense and supports my claim?	<input type="checkbox"/>
	Reflect on the text to ensure the evidence I used is the best evidence to support my claim?	<input type="checkbox"/>
Use complete sentences, correct punctuation, and spelling?	Reread my writing to ensure it means exactly what I want it to mean?	<input type="checkbox"/>
	Review my writing for correct grammar, spelling, and punctuation?	<input type="checkbox"/>

10.3.1 Unit Glossary

Word	Definition	Introduced Where in the Text (Page Number)	Lesson #
cervix	(n.) – any neck-like part, especially the constricted lower end of the uterus	1	1
chemotherapy	(n.) – the treatment of disease by means of chemicals that have a specific toxic effect upon disease-producing microorganisms or that selectively destroy cancerous tissue	2	1
cloning	(n.) – the process of producing a clone (a cell, cell product, or organism that is genetically identical to the unit or individual from which it was derived)	2	1
gene mapping	(n.) – any of a number of methods used to construct a model of the linear sequence of genes of a particular chromosome	2	1
in vitro fertilization	(n.) – a specialized technique by which an ovum, especially a human one, is fertilized by sperm outside the body, with the resulting embryo later implanted in the uterus for gestation	2	1
genome	(n.) – a full set of chromosomes; all the inheritable traits of an organism	3	1
herpes	(n.) – any of several diseases caused by herpes virus, characterized by eruption of blisters on the skin or mucous membranes	4	1

Word	Definition	Introduced Where in the Text (Page Number)	Lesson #
influenza	(n.) – an acute, commonly epidemic disease, occurring in several forms, caused by numerous rapidly mutating viral strains and characterized by respiratory symptoms and general prostration	4	1
hemophilia	(n.) – any of several X-linked disorders, symptomatic chiefly in males, in which excessive bleeding occurs owing to the absence or abnormality of a clotting factor in the blood	4	1
Parkinson's disease	(n.) – a common neurologic disease believed to be caused by deterioration of the brain cells that produce dopamine, occurring primarily after the age of 60, characterized by tremors, especially of the fingers and hands, muscle rigidity, shuffling gait, slow speech, and a masklike facial expression	4	1
lactose digestion	(n.) – the process of digesting a disaccharide that is present in milk	4	1
sexually transmitted disease	(n.) – any disease characteristically transmitted by sexual contact	4	1
appendicitis	(n.) – inflammation of the vermiform appendix	4	1
workhorse	(n.) – a person or thing that works tirelessly at a task, assumes extra duties, etc.	4	1

Word	Definition	Introduced Where in the Text (Page Number)	Lesson #
biopsy	(n.) – the removal for diagnostic study of a piece of tissue from a living body	27	2
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.)	27	2
menopause	(n.) – the period of permanent cessation of menstruation, usually between the ages of 45–55	27	2
endometriosis	(n.) – the presence of uterine lining in other pelvic organs, especially the ovaries, characterized by cyst formation, adhesions, and menstrual pains	27	2
gynecology	(n.) – the branch of medical science that deals with the health maintenance and diseases of women, especially of the reproductive organs	28	2
pipette	(n.) – a slender graduated tube used in a laboratory for measuring and transferring liquids from one container to another	28	2
hysterectomy	(n.) – excision of the uterus	29	2
indigent	(adj.) – needy, poor, impoverished	30	2

Word	Definition	Introduced Where in the Text (Page Number)	Lesson #
dearth	(n.) – an inadequate supply; scarcity; lack	30	2
radioactive	(adj.) – of, pertaining to, exhibiting, or caused by radioactivity	32	2
dilated	(v.) – made wider or larger; caused to expand	33	2
catheter	(n.) – a flexible or rigid hollow tube employed to drain fluids from body cavities or to distend body passages	33	2
deception	(n.) – the act of deceiving (misleading by false appearance or statement)	63	3
specimen	(n.) – a sample of a substance or material for examination or study	66	3
polio	(n.) – shortened form of poliomyelitis; a serious disease that affects the nerves of the spine and often makes a person permanently unable to move particular muscles	93	4
vaccine	(n.) – a substance that is usually injected into a person or animal to protect against a particular disease.	93	4
autoclave	(n.) – a heavy vessel for conducting chemical reactions under high pressure	96	4

Word	Definition	Introduced Where in the Text (Page Number)	Lesson #
incubators	(n.) – apparatus in which media inoculated with microorganisms are cultivated at a constant temperature	96	4
proteins	(n.) – any of various naturally occurring extremely complex substances that consist of amino-acid residues joined by peptide bonds; contain the elements carbon, hydrogen, nitrogen, oxygen, usually sulfur, and occasionally other elements (as phosphorus or iron); and include many essential biological compounds (as enzymes, hormones, or antibodies)	97	4
optimal	(adj.) – most favorable	97	4
hardy	(adj.) – capable of enduring hardship; strong	97	4
metabolism	(n.) – the chemical processes by which a plant or animal uses food, water, etc., to grow and heal and to make energy	98	4
culture medium	(n.) – a liquid or solidified nutrient material suitable for the cultivation of microorganisms	99	4
inoculation	(n.) – introduction of (the causative agent of disease) into the body of (a person or animal), in order to induce immunity	127	5

Word	Definition	Introduced Where in the Text (Page Number)	Lesson #
immune systems	(n.) – a diffuse, complex network of interacting cells, cell products, and cell-forming tissues that protects the body from pathogens and other foreign substances, destroys infected and malignant cells, and removes cellular debris	128	5
lymph nodes	(n.) – any of the glandlike masses of tissue in the lymphatic vessels containing cells that become lymphocytes through which lymph passes to be filtered and cleaned	128	5
refrain	(n.) – a phrase or verse recurring at intervals in a song or poem	129	5
diagnosis	(n.) – the process of determining by examination the nature and circumstances of a diseased condition	130	5
dissecting	(v.) – cutting apart (an animal body, plant, etc.) to examine the structure, relation of parts, or the like	131	5
ethical boundaries	(n.) – the limits of accepted principles of right and wrong that govern the conduct of a profession	132	5
civil courts	(n.) – courts of law in which civil cases (private and civilian affairs) are tried and determined	132	5

Word	Definition	Introduced Where in the Text (Page Number)	Lesson #
inalienable rights	(n.) – that which is due to anyone by just claim, legal guarantees, moral principles, etc., and cannot be transferred to another without consent (e.g., rights of liberty or of speech)	134	5
abducted	(v.) – took (someone) away from a place by force	165	7
tactics	(n.) – modes or procedures for gaining advantage or success	166	7
exhumed	(v.) – removed a body from the place where it was buried	166	7
anesthesia	(n.) – loss of sensation, especially of pain, induced by drugs; called general anesthesia when consciousness is lost	166	7
peril	(n.) – something that is likely to cause injury, pain, harm, or loss	167	7
discretion	(n.) – the power or right to decide or act according to one's own judgment; freedom of judgment or choice	167	7
predisposition	(n.) – tendency to a condition or quality, usually based on the combined effect genetic and environmental factors	167	7
abatement	(n.) – suppression or termination	168	7

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exploited	(v.) – used (someone or something) in a way that helps you unfairly	168	7
autopsy	(n.) – an examination of a dead body to find out the cause of death	181	8
deduce	(v.) – to use logic or reason to form a conclusion or opinion about something; to decide (something) after thinking about the known facts	183	8
receptive	(adj.) – able or quick to receive knowledge, ideas, etc. *Hsu uses the word <i>receptible</i> , which is not a word in English. What Hsu likely meant was <i>receptive</i> .	183	8
biotech [biotechnology]	(n.) – the use of living organisms or other biological systems in the manufacture of drugs or other products or for environmental management, as in waste recycling; includes the use of bioreactors in manufacturing, microorganisms to degrade oil slicks or organic waste, and genetically engineered bacteria to produce human hormones	194	9
crossed	combined characteristics of two different types of individuals	196	9
malignant	(adj.) – (of a tumor) characterized by uncontrolled growth; cancerous, invasive, or metastatic	199	10
severed	(v.) – separated (a part) from the whole, as by cutting or the like	199	10

Word	Definition	Introduced Where in the Text (Page Number)	Lesson #
cremation	(n.) – consumption by fire; process of burning	199	10
voluntarily	(adv.) – done, made, brought about, undertaken, etc. of one’s own accord or by free choice	200	10
heirs	(n.) – people who inherit or have a right of inheritance in the property of another following the latter’s death	200	10
patent	(n.) – the exclusive right granted by a government to an inventor to manufacture, use, or sell an invention for a number of years	201	11
pharmaceutical companies	(n.) – companies that manufacture and sell medicinal drugs	202	11
legislation	(n.) – a law or body of laws enacted	204	11
incentive	(n.) – something that encourages a person to do something or work harder	205	11