10.3.2 Unit Overview

"Engaging in an Inquiry-Based, Iterative Research Process to Write Arguments"

Texts	Students choose texts for research based on their problem-based question. *Model Research Sources:* • "A Court Allows Payment for Bone Marrow. Should People Be Able to Sell Their Parts? by Alice Park (Source #1) • "Do We Own Our Bodily Tissues?" by Margaret Ng Thow Hing (Source #2) • "Paying Patients for Their Tissue: The Legacy of Henrietta Lacks" by Robert D. Truog, Aaron S. Kesselheim and Steven Joffe (Source #3) • "Tissue Banks Trigger Worry About Ownership Issues" by Charlie Schmidt (Source #4) • "Human Tissue for Sale: What Are the Costs?" by Deborah Josefson (Source #5) • "My Body, My Property" by Lori B. Andrews (Source #6) • "Body of Research—Ownership and Use of Human Tissue" by R. Alta Charo (Source #7)
Number of Lessons in Unit	13

Introduction

In this unit, students continue the research process begun in Unit 1. Students begin to deeply engage in this iterative, non-linear process with the goal of deepening students' understanding of topics and issues that may lead to argument writing. Students continue to learn how to use the inquiry-based research process to gather, assess, read, and analyze sources, while organizing and synthesizing research to develop claims and counterclaims about a specific problem-based question.

Students are formally introduced to the research process by creating a Research Portfolio and learning about the Student Research Plan, a roadmap for students to reflect on their ongoing research progress

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and next steps. Students vet areas of investigation, developed in Unit 1, to focus on a specific research topic/issue. From there, students learn how to develop specific inquiry questions and choose credible, relevant, and accessible sources by planning for searches, assessing sources, annotating sources, taking notes, and evaluating arguments effectively.

Through these inquiry steps, students create a problem-based question and an initial research frame that guides independent searches. Using the reading skills developed in previous modules and the source assessment skills introduced in this unit, students conduct independent research by using inquiry questions to explore and deepen their understanding of their specific problem-based question. As the research process continues, students continually revisit the research frame to analyze their research direction and focus, while assessing and making changes as necessary. As this cyclical and iterative research process evolves, students begin to organize and synthesize their data, make claims about inquiry paths, and eventually the problem-based question itself.

Additionally, students are exposed to the fundamentals of argument-based writing through the examination and delineation of arguments. Students work to identify the effective components of argument-based writing and begin to expand their understanding of effective argument writing by establishing counterclaims opposing their claims.

There is one formal assessment in this unit; however, students continually reflect on their research progress by journaling about their research progress and next steps using a Research Journal. The End-of-Unit Assessment asks students to develop an Evidence-Based Perspective by writing a one-page synthesis of their personal conclusions and perspective derived from the research (W.9-10.7, W.9-10.9).

Note: This unit suspends Accountable Independent Reading (AIR). Students are held accountable for building a volume of independent reading as they read multiple sources and refine and deepen their understanding of their inquiry topic and later, problem-based question.

Literacy Skills & Habits

- Assess sources for credibility, relevance, and accessibility.
- Conduct independent searches using research processes including planning for searches, assessing sources, annotating sources, recording notes, and evaluating argument.
- Develop, refine, and select inquiry questions for research.
- Develop and continually assess a research frame to guide independent searches.
- Collect and organize evidence from research to support analysis in writing.
- Craft claims about inquiry questions, inquiry paths, and a problem-based question using specific textual evidence from the research.
- Develop counterclaims in opposition to claims.

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Standards for This Unit

CCS Standards: Reading-	
RI.9-10.1.a	**Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.** **a. Develop factual, interpretive, and evaluative questions for further exploration of the topic(s).**
RI.9-10.8	**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.**

CCS Standards: Writing	
W.9-10.1.b	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. Explore and inquire into areas of interest to formulate an argument. b. Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns.
W.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
W.9-10.7	**Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.**
W.9-10.8	**Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.**
W.9-10.9	**Draw evidence from literary or informational texts to support analysis, reflection, and research.**

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CCS Standards: Speaking & Listening	
SL.9-10.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 9–10 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively.

CCS Standards: Language	
L.9-10.4. a, c, d	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies. 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. c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

Note: Bold text indicates standards that will be assessed in the unit.

Unit Assessments

Ongoing Assessment	
Standards Assessed	RI.9-10.1a, RI.9-10.8, W.9-10.7, W.9-10.8, W.9-10.9
Description of Assessment	Varies by lesson but may include completed research tools, responses to Quick Write prompts focused on developing research skills, and vocabulary learned through research as tracked in the vocabulary journal.

End-of-Unit Assessment	
Standards Assessed	W.9-10.7, W.9-10.9

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Description of Assessment	• Students submit a completed Research Portfolio with the four sections organized including 1. Defining an Area of Investigation, 2. Gathering and Analyzing Information, 3. Drawing Conclusions, 4. Discarded Material. The Research Journal is also located in the Research Portfolio. • Students write a one-page synthesis of their developing perspective derived from their research. Students draw on the research evidence collected to express their Evidence-Based Perspective on their problem-based question.

Unit-at-a-Glance Calendar

Lesson	Text	Learning Outcomes/Goals
1	Students choose texts for research based on their individual research question/problem.	Students are formally introduced to the research unit and construct a Research Portfolio to house all research previously conducted in Unit 1 and the research materials distributed and gathered in this unit. Additionally, students vet their 2–3 possible areas of investigation (from Unit 1, Lesson 15) to identify a research topic/area of investigation for use throughout the unit.
2	Students choose texts for research based on their individual research question/problem.	Students work to generate more specific inquiry questions to frame their research. Students were introduced to inquiry questions in Unit 1. In this lesson, they learn how to craft specific inquiry questions for their selected research topic/area of investigation developed in the previous lesson. Students engage in a research process check-in during which they review the Student Research Plan Handout. Students also review inquiry questions from Unit 1 and generate, vet, and refine specific inquiry questions for their research topic/area of investigation using a Specific Inquiry Questions Checklist.
3	Students choose texts for research based on their individual research question/ problem.	Students learn how to select inquiry questions, plan search locations, and use key words and phrases to conduct effective and efficient research. Additionally, students learn how to formally assess sources for credibility, accessibility, and relevance.
4	Students choose texts for research based on their individual research question/problem.	Students continue to develop their research skills as they learn how to closely read important sources for selected inquiry questions, using annotation and note taking. Students are introduced to additional annotation codes and a Taking Notes Tool.

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Lesson	Text	Learning Outcomes/Goals
5	Students choose texts for research based on their individual research question/problem.	Students learn how to evaluate an evidence-based argument. Students work to develop their ability to identify the necessary components of a compelling argument, systematically evaluate arguments, and assess the effectiveness of these arguments.
6	Students choose texts for research based on their individual research question/problem.	Students construct a frame (Research Frame Tool) to guide their research by establishing inquiry paths that allow them to explore various aspects of their research topic/area of investigation. Students group their inquiry questions thematically, establish a problem-based question, and formally plan their research using the Research Frame Tool.
7	Students choose texts for research based on their individual research question/problem.	Students begin conducting searches independently using the Research Frame and associated search tools. This lesson is the first of three lessons during which students conduct sustained, independent research during class. While researching, students consider how to use inquiry questions to drive research while continually assessing sources for credibility and usefulness in answering inquiry questions.
8	Students choose texts for research based on their individual research question/problem.	Students continue to conduct searches independently using the Research Frame as a guide, with the associated search tools. This lesson is second in a series of three lessons focusing on the independent search process. It builds on the previous lesson by focusing students on determining if the research surfaced is sufficient to address established inquiry paths and questions, and adjusting the search accordingly. Additionally, students read sources closely, analyzing details and ideas, and taking notes for each source to determine how it addresses inquiry questions and paths.
9	Students choose texts for research based on their individual research question/problem.	Students continue to conduct searches independently. This lesson is the last in a series of three lessons focused on conducting searches independently. Students assess their current search process and make strategic decisions about changes, additions, and deletions to the Research Frame. Students make final decisions about their research direction by revising their Research Frame accordingly.

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Lesson	Text	Learning Outcomes/Goals
10	Students choose texts for research based on their individual research question/problem.	Students analyze and synthesize their research to make claims about inquiry questions within an inquiry path. Students complete at least two Forming Evidence-Based Claims Tools for all inquiry paths on the Research Frame. These initial claims are the foundation for the Evidence-Based Perspective students will develop in Lesson 13.
11	Students choose texts for research based on their individual research question/problem.	In this lesson, students organize, analyze, and synthesize their claims (Forming Evidence-Based Claims Tools) from the previous lesson to develop comprehensive claims about each inquiry path in the Research Frame. This work directly prepares students for developing and writing an Evidence-Based Perspective (End-of-Unit Assessment) in Lesson 13. Students build on the claims created in the previous lesson to develop comprehensive claims that reflect a deeper understanding of the inquiry paths and the problem-based question itself.
12	Students choose texts for research based on their individual research question/problem	Students choose one claim from the previous lesson to form a counterclaim in opposition to that claim. Students identify evidence to support their counterclaims and record that information on the Forming Counterclaims Tool before engaging in a peer review. Students use the Evidence-Based Claims Criteria Checklist to evaluate a peer's counterclaim.
13	Students choose texts for research based on their individual research question/problem.	Students complete the End-of-Unit Assessment by conducting a final review of the Research Portfolio and writing an Evidence-Based Perspective based on the research outcomes from the unit. Students submit the final Research Portfolio and the Evidence-Based Perspective. The Evidence-Based Perspective is assessed using a rubric based on the Research Portfolio content.

Preparation, Materials, and Resources

Preparation

- Identify and contact the media specialist/librarian/person best positioned to assist students with conducting research.
- Reserve computer lab or classroom with technology and Internet access for all students.

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- Read and annotate model sources (see page 1).

Materials/Resources

- Binders or Electronic Folders (for the Research Portfolio)
- Access to technology (if possible): interactive whiteboard, document camera, and LCD projector
- Copies of handouts and tools for each student: see Materials list in individual lesson plans
- Highlighters
- Copies of the 10.3.2 End-of-Unit Evidence-Based Perspective Rubric.

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10.3.2 Lesson 1

Introduction

In this first lesson of the unit, students are formally introduced to the research unit and continue the research process they began in 10.3.1. The teacher provides an overview of the research process and engages students in vetting their two to three possible areas of investigation from 10.3.1 Lesson 15, in order to select a research topic/area of investigation to explore throughout the unit.

Students begin the lesson by learning more about the research process and constructing the Research Portfolio, which they use to house all research they conducted in 10.3.1 and the research materials that are distributed and gathered in this unit. Next, using the Area Evaluation Checklist, students vet their two to three possible areas of investigation that they previously refined in 10.3.1 Lesson 15, and independently select a research topic/area of investigation. The lesson concludes with a Quick Write in which students discuss their specific research topic/area of investigation and how they selected it using the Area Evaluation Checklist to vet the possible areas of investigation. For homework, students use the Pre-Search Tool from 10.3.1 to search for two sources related to the research topic/area of investigation they draft in this lesson. Students prepare to discuss how the two sources connect to the research topic/area of investigation in the following lesson, 10.3.2 Lesson 2.

Standards

Assessed Standard(s)	
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
Addressed Standard(s)	
W.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
L.9-10.4.a, c, d	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies. 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.

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	c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

Assessment

Assessment(s)
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. • Describe how you arrived at your specific research topic/area of investigation through the vetting process you conducted in the lesson. Explain how the Area Evaluation Checklist led you to select your specific research topic/area of investigation. ⓘ The Quick Write is assessed using the Area Evaluation Checklist.
High Performance Response(s)
A High Performance Response should: • Describe the specific area of investigation and the factors that helped the student narrow his or her choice (e.g., I chose the topic of tissue ownership because it had the most sources available and has a large scope for argument-based research.). • Explain how the criteria in the Area Evaluation Checklist support the evaluation of topics (e.g., The Area Evaluation Checklist helped me evaluate the topic by asking me to consider whether the topic led to more questions. This topic is strong enough to support further inquiry through questions such as, "What happens to tissue once it is removed from the body?" and "When do patients relinquish the right to their tissue?"). • Explain how the chosen area of investigation supports a research-based argument (e.g., There are different perspectives on the topic: Some think that researchers should own excised and donated tissues, and some think that ownership should revert to the patient, so I can argue for one of these perspectives or perhaps identify another.).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*

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Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text:	
• Standards: W.9-10.7, W.9-10.4, L.9-10.4.a, c, d	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 15%
2. Homework Accountability	2. 10%
3. Introduction to Research Process and Resources	3. 25%
4. Vetting Areas of Investigation	4. 35%
5. Quick Write	5. 10%
6. Closing	6. 5%

Materials

- Copies of the 10.3 Common Core Learning Standards Tool for each student
- Students' two to three areas of investigation (refer to 10.3.1 Lesson 15)
- Student copies of the Area Evaluation Checklist (at least three blank copies) (refer to 10.3.1 Lesson 15)
- Student copies of the Pre-Search Tool (refer to 10.3.1 Lesson 8)
- Binders or electronic folders (for the Research Portfolio)

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.

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	Italicized text indicates a vocabulary word.
▸	Indicates student action(s).
❝	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda 15%

Begin by reviewing the agenda and assessed standard for this lesson: W.9-10.7. In this lesson, students learn more about the research process. They construct the Research Portfolio to house all research they previously conducted in 10.3.1 and the research materials that are distributed and gathered in this unit. Next, using the Area Evaluation Checklist, students vet their two to three possible areas of investigation that they previously refined in 10.3.1 Lesson 15, and independently select a specific research topic/area of investigation. The lesson concludes with a Quick Write in which students discuss their research topic/area of investigation and how they selected it using the Area Evaluation Checklist to vet the possible areas of investigation.

- ▸ Students look at the agenda.

Distribute copies of the 10.3 Common Core Learning Standards Tool to each student. Explain that students continue to work on mastering the skills described in the Common Core State Standards (CCSS) throughout this new module and the rest of the year.

- ▸ Students listen and examine the 10.3 Common Core Learning Standards Tool.

ⓘ It may be helpful to explain to students that at the beginning of lessons, they are introduced to new standards as necessary, as in Modules 10.1 and 10.2.

Inform students that in this lesson they begin to work with a new standard: W.9-10.7. Ask students to individually read this standard on their tools and assess their familiarity with and mastery of it.

- ▸ Students read and assess their familiarity with standard W.9-10.7.

Instruct students to talk in pairs about what they think the standard means. Lead a brief discussion about this standard.

- ❝ Student responses should include:
  - Students conduct research for short and long projects.
  - Students use research to answer a question or solve a problem.
  - Students expand or limit the inquiry based on the project or the research topic.
  - Students read and put together multiple sources on the subject, showing what they understand about the subject based on what they learned from the sources.

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ⓘ If students have completed the Grade 9 Module 3 ELA Curriculum and/or the Odell Education Research for Deepening Understanding Core Proficiency Unit, consider a brief review of this standard versus a full-class discussion.

Provide students with the following definitions: *sustained* means "kept up or continued, as an action or process," and *self-generated* means "made without the aid of an external agent; produced spontaneously."

- Students write the definitions of *sustained* and *self-generated* in a vocabulary journal.

Ask students to consider the meaning of *inquiry* in the context of the standard.

- Students responses may include:
  - The standard is about conducting research, which means looking for information.
  - The verb is "to inquire," which means to look for information.

ⓘ Consider providing students with the following definition: *inquiry* means "the act of seeking information by questioning," and explain that the research process taught in this unit is based on *inquiry* and that questioning plays a vital role in exploring a specific research topic/area of investigation.

- Students write the definition of *inquiry* in a vocabulary journal.

Ask students what it means to "*synthesize* multiple sources."

- The standard says that you synthesize multiple sources in order to demonstrate "understanding of the subject under investigation." To really understand a subject from more than a single source you have to compare, discuss, draw conclusions from multiple sources; this is likely to be what *synthesize* means.

ⓘ Consider providing students with the following definition: *synthesize* means "to combine into a single unit or unified entity or thing," and explain to students that after plenty of research, they draw conclusions or *synthesize* the research to make claims about the research topic/area of investigation. However, this action happens near the end of the unit, after plenty of research and analysis has been conducted.

- Students write the definition of *synthesize* in a vocabulary journal.

ⓘ Consider pointing out that the prefix *syn-* means "with" or "together." Discuss how this prefix relates to the larger meaning of the word *synthesize.*

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Activity 2: Homework Accountability 10%

Inform students that during 10.3.2, they are not assessed on their Accountable Independent Reading. Instead, homework is an extension of the learning from the lesson. Students are expected to conduct research activities outside of class. Students build a volume of independent reading as they read multiple sources and refine and deepen their understanding of their research topic/area of investigation. Remind students to continue to record new vocabulary words in their vocabulary journals when conducting independent searches for homework.

- Students listen.

ⓘ Consider distributing the assessed 10.3.1 End-of-Unit Assessment to each student for review purposes. Consider meeting with students who struggled with the End-of-Unit Assessment to provide extra support. A formal review of the 10.3.1 End-of-Unit Assessment is not conducted here to allow for time in evaluation and selection of a research topic/area of investigation.

Instruct student pairs to take out their homework from the previous lesson and discuss two to three vocabulary words they identified and explain how they function in the context of the source discovered in their pre-searches.

- Student pairs take out their homework and discuss two to three vocabulary words and how they function in the context of the source.

- Student responses will vary by sources.

ⓘ 10.3.1 Lesson 15 homework was as follows: Continue to read the sources you found during your pre-searches and identify, record, and define unknown vocabulary using your vocabulary journal. Check the definitions of at least five unknown vocabulary words. Be prepared to discuss these words and their definitions in the following lesson.

ⓘ Consider reminding students of the strategies inherent in the standards L.9-10.4.a, c, and d.

ⓘ **Differentiation Consideration:** Consider giving students a structure to follow when discussing the vocabulary words. For example, display the following sentence starters to support students in their vocabulary discussions: The word I found is _____. I found it in _____ source, related to my area of investigation, which is _____. This word serves this purpose in the source: _____.

ⓘ Consider circulating to ensure that students are picking Tier II or III words that would build understanding within and across topics.

ⓘ Consider collecting the homework to assess students' research progress.

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Activity 3: Introduction to Research Process and Resources 25%

Explain to students that in 10.3.2 they continue the research process they began in 10.3.1. Additionally, students use a set of tools that help them organize and synthesize the information they gather across sources.

Remind students that in 10.3.1 they engaged in surfacing issues and narrowing those issues into two to three possible areas of investigation. Inform students that in 10.3.2, they narrow the two to three possible areas of investigation into a specific debatable issue that is known as a research topic or area of investigation. Students then refine this research topic/area of investigation further by developing a problem-based question to guide the research and use the gathered evidence to inform and develop a perspective on the issue.

Begin by discussing the nature of inquiry-based research. Explain to students that researchers follow a general *iterative* (cyclical or repetitive) process and use tools and strategies to find, analyze, and organize information from sources that they read. Effective researchers follow the data, which enables them to consider multiple perspectives. Researchers conduct research to discover new information, develop new ideas, and draw conclusions along the way. Reiterate that students should not go into the research with pre-established claims on a given research topic, but should keep an open mind and evaluate all the evidence as they engage in research.

Explain to students that there are multiple steps in the process and many of the steps are repeated; this type of research is not a sequential list of steps but a cyclical and iterative process during which new directions and paths can be created at different points in the process.

- Students listen.

Provide students with the following definition: *iterative* means "involving repetition relating to an operation or procedure," so they understand the research process is not a linear process, but has parts that may repeat based on answers, evidence, and conclusions discovered along the way.

- Students write the definition of *iterative* in a vocabulary journal.

Explain to students that research is a form of exploration. They are taught to use skills like asking questions, conducting inquiries, and gathering reliable information. They learn how to organize, make connections, and analyze the information they gather. These processes show students how to deepen their understanding of a specific research topic/area of investigation. Through exploration, students develop a problem-based question to explore multiple arguments and finally develop a central claim of their own about an issue.

- Students listen.

ⓘ **Differentiation Consideration:** Consider informing students that they already know of at least one researcher, Rebecca Skloot, whose research about the Lacks family and the HeLa cells serves multiple purposes. Ask students the following question:

What multiple purposes does Skloot's research serve?

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- Student responses may include:
  - Skloot uses her research to help the Lacks family and others understand what happened to Henrietta and to reveal reasons for why the Lacks family should have some control over how HeLa cells are used or the financial proceeds from the cells' use.
  - She uses research to expand on the issue of informed consent, considering arguments about the greater good and science, and how informed consent can impede research. However, informed consent protections also lead to privacy and ownership of biological information and material considerations.
  - Skloot uses research to provide multiple examples of similar cases so the reader can develop his or her own central claims regarding the book's tissue ownership issues.
  - Skloot uses research to cement her own understandings of some of the issues involved, including reading articles that are directly related to her topic for background knowledge, and revealing the depth of her research by presenting the facts, characters, and issues involved with Henrietta's cells and HeLa.
  - Skloot acts like a detective, researching to dig deeper into issues that she does not fully understand and working to form a larger picture of the topic, even meeting with primary source subjects who take her down different paths.

ⓘ Consider reminding students about how Skloot's research process was initiated by a spark of interest during a Biology class. (The text captures her arriving at her initiation of inquiry/generating of inquiry questions on page 4 of the Prologue.)

Inform students that throughout the research process they are expected to use a structured organizational system for annotating, recording notes, analyzing sources, and sorting information. As students work though the research steps, they construct a Research Portfolio consisting of various tools, handouts, checklists, and sources that guide, store, and organize their research and analysis. Explain the sections of the Research Portfolio:

- Section 1: Defining an area of investigation – This section stores all the work you do exploring the topic and choosing a research topic/area of investigation.
- Section 2: Gathering and Analyzing Information – This section stores all the information you gather throughout your investigation. It also stores your notes and analysis of sources.
- Section 3: Drawing Conclusions – This section stores your evidence-based claims about inquiry questions and inquiry paths, and the evidence-based perspective that you come to at the end of your inquiry.
- Section 4: Discarded Material – This section stores all the sources and analysis that you have discarded throughout your investigation. The purpose of this section is to keep a record of discarded materials until the end of the research process in case you change your mind and want to use them.

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ⓘ Consider displaying the Research Portfolio sections for students to see.

Distribute binders and instruct students to create the four sections of the Research Portfolio and place all the research material from 10.3.1 into section 1.

- Students follow along and organize their Research Portfolios.

ⓘ Consider using a form of electronic folders or other technological media to house and manage the Research Portfolio contents. Teachers who choose to use Google Drive and/or other cloud-based online organizational formats should consider displaying sample folders for all students to see.

Activity 4: Vetting Areas of Investigation 35%

Inform students that they are to narrow down the two to three areas of investigation they crafted in the 10.3.1 Lesson 15 End-of-Unit Assessment into a research topic/area of investigation that guides their inquiry for the rest of the unit. Explain to students that they should use the Area Evaluation Checklist to vet their areas of investigation, so they can craft and select a research topic/area of investigation that sustains effective research for the duration of the unit.

- Students listen.

Distribute students' two to three possible areas of investigation from the 10.3.1 Lesson 15 End-of-Unit Assessment.

- Students examine their possible areas of investigation.

ⓘ The 10.3.1 Lesson 15 End-of-Unit Assessment Part 2 prompt was as follows: "Articulate in writing two to three areas of investigation and describe how and where each area emerged from the Skloot text."

Inform students that throughout 10.3.2, "Tissue Ownership" is the research topic/area of investigation to be used for modeling the research process. Explain to students that by using the Area Evaluation Checklist, they select their final research topics/areas of investigation from their 10.3.1 areas of investigation. Inform students that this research topic/area of investigation is a model only and not an exemplary response to follow or mimic. Remind students they are required to follow their own inquiries as established by the research topic/area of investigation they select in this lesson.

- Students listen.

ⓘ Distribute at least two to three blank copies of the Area Evaluation Checklist. Students need to complete a checklist for each area of investigation from the 10.3.1 Lesson 15 End-of-Unit Assessment.

- Students examine their blank Area Evaluation Checklist.

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Show students how to use the Area Evaluation Checklist using the following three areas of investigation. Model three sample areas of investigation that may have been included in a student response from 10.3.1 Lesson 15:

- Area of investigation: Tissue Ownership
- Area of investigation: Informed Consent
- Area of investigation: Genetic Basis for Criminal Behavior

  - Students listen.

ⓘ Consider displaying the three model areas of investigation for students to see. Remind students that their areas of investigation are different from these, but they should have two to three of their own listed on their 10.3.1 End-of-Unit Assessment responses.

Model for students how to use the Area Evaluation Checklist to *vet* one of the model areas of investigation just discussed.

Provide students with the following definition: *vet* means "to appraise, verify, or check for accuracy, authenticity, or validity." Students are to appraise their two to three areas of investigation using the Area Evaluation Checklist. Inform students the first area of investigation to be modeled for vetting is the one about tissue ownership.

  - Students listen and follow along with the modeling.
  - Students write the definition of *vet* in a vocabulary journal.

ⓘ Consider displaying the Area Evaluation Checklist for students to see the modeling.

Explain to students that the first part of the Area Evaluation Checklist calls for the researcher to articulate clearly his/her area of investigation in a way that others understand and that makes sense. The area of investigation should demonstrate that the researcher has a coherent vision of his/her area of investigation. For example, "My area of investigation is tissue ownership."

  - Students listen and follow along with the modeling.

Explain to students that the second part of the Area Evaluation Checklist calls for the researcher to think about what thoughtful questions are necessary in order to deeply explore the area of investigation. These questions should allow for extensive research of the area of investigation but with available resources that are credible or academic in nature. Some of these questions may include:

- For what research purposes are human tissues used?
- How does a researcher get consent from a patient to use his or her tissues in research?
- Does a researcher need consent from the family to take tissues from someone if the person is no longer living?
- When unnecessary tissues are removed from the body, what happens to them?

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ⓘ Although these sample questions are focused on a scientific issue, consider reminding students they can draw on a wide range of other types of issues from *The Immortal Life of Henrietta Lacks*, such as civil rights, medical concerns, legal precedents, or ethics.

ⓘ Explain to students that they discuss source credibility further in 10.3.2 Lesson 3.

Explain to students that the questions above allow for interesting and rich research in the area of investigation and contribute to a deeper understanding about it.

- Students listen and follow along with the modeling.

ⓘ Consider engaging students in the model vetting process by asking for additional questions that would lead to an understanding of the model area of investigation.

Explain to students that the third part of the Area Evaluation Checklist calls for an explanation of how the area of investigation is relevant to a larger topic and if it supports argument. Remind students that at the beginning of the research process, while reading Skloot's text, *The Immortal Life of Henrietta Lacks*, one of the surfaced issues was the focus on how her cells were taken without telling her. It was from the broad topic of stolen tissues that the area of investigation was derived, especially after the cases of John Moore and Ted Slavin were described. The question of who owns the tissue that has been removed from a person seems unclear, and one that may support multiple claims since it was never resolved in the text.

- Students listen and follow along with the modeling.

Explain to students that the fourth part of the Area Evaluation Checklist calls for the researcher to illustrate the reason for his/her curiosity and why the topic is valuable to explore. Explain to students that a researcher may be interested in this topic because in the *Immortal Life of Henrietta Lacks*, once Henrietta's cells and the Lacks family's blood were removed, the Lacks family had no control over how they were used, which raises questions of what is fair or ethical.

- Students listen and follow along with the modeling.

The last section asks students to evaluate their answers in the previous boxes and determine whether they want to select this research topic/area of investigation as their focus for research. Ask students what it means to evaluate the strength of an area of investigation.

- Student answers may include:
  - Determine if there are multiple claims about the topic.
  - Decide whether there is enough about the area of investigation to investigate.
  - Determine whether there is a basic understanding of the topic.
  - Ensure there is interest in the topic.

ⓘ "Area of investigation" and "research topic" are used synonymously throughout the unit.

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Next, model for students how to evaluate and select the potential area of Investigation by writing on the bottom of the Area Evaluation Checklist. Remind students to use the tools from 10.3.1 to support their answers in this section: "During my pre-searches, I found many sources that support different central claims on this issue. I learned some of the background knowledge to support my understanding of this issue, and recorded important terms, such as tissue, cell line, royalties, and lymphocytes in my vocabulary journal. This issue is unresolved and is worth investigating, and I am interested in finding out more about it. I plan to select 'tissue ownership' as my area of investigation."

- Students follow along with the modeling.

ⓘ Remind students that a research topic/area of investigation provides multiple claims about a debatable issue.

ⓘ Consider modeling how to vet one of the other two model areas of investigation from 10.3.1 Lesson 15. Students may benefit from seeing multiple areas of investigation vetted to craft the richest research topics/areas of investigation possible.

Instruct students to vet their two to three areas of investigation from the 10.3.1 Lesson 15 End-of-Unit Assessment independently, using the Area Evaluation Checklist.

- Students independently vet their areas of investigation from the 10.3.1 End-of-Unit Assessment using the Area Evaluation Checklist.

Circulate around the room to monitor students' progress.

ⓘ Students need one Area Evaluation Checklist for each area of investigation.

Explain to students that they should now decide which vetted area of investigation produces the richest and most interesting research topic/area of investigation for exploration/research. Instruct students to examine their Area Evaluation Checklists for each area of investigation.

- Students examine the Area Evaluation Checklist and select an area of investigation.

Lead a share out of students' various research topics/areas of investigation.

- Student responses may include:
  - I became interested in the topic of informed consent because of Henrietta Lacks' story. My big question is how do we know if consent is informed or not? Based on this, I have narrowed down the topic and done some pre-searches, which reveal multiple claims on this issue.
  - My topic is about determining a genetic basis for criminal behavior. There are multiple claims about issues related to this topic, including whether it is right to target a population for criminal behavior and what the value of finding such a gene would be. There are several

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sources in my pre-searches to support this topic, and I have a good understanding of this topic because I annotated some of the sources in my research journal.

- During my pre-searches, I found many sources that support different central claims on this issue. I learned some of the background knowledge to support my understanding of this issue, and recorded important terms, such as *tissue*, *cell line*, *royalties*, and *lymphocytes* in my vocabulary journal. This issue is unresolved and is worth investigating, and I am interested in finding out more about it. I plan to select "tissue ownership" as my area of investigation.

ⓘ Consider displaying students' names and research topics/areas of investigation so that students can identify and reach out for support from peers working with related research topics/areas of investigation.

Activity 5: Quick Write 10%

Instruct students to respond briefly in writing to the following prompt. Remind students to practice the skills outlined in W.9-10.4, to which they were introduced in 10.1.3 Lesson 8.

ⓘ If necessary, consider reviewing the components of W.9-10.4, which include producing clear, coherent writing that employs organization and style appropriate to the task, purpose, and audience.

Describe how you arrived at your specific research topic/area of investigation through the vetting process you conducted in the lesson. Explain how the Area Evaluation Checklist led you to select your specific research topic/area of investigation.

Instruct students to use the Area Evaluation Checklist to guide their written responses.

- Students listen and read the prompt.

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

Transition to the independent prompt.

- Students independently answer the prompt using evidence from the Area Evaluation Checklist.
- See the High Performance Response at the beginning of this lesson.

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Activity 6: Closing 5%

Display and distribute the homework assignment. For homework, instruct students to use the Pre-Search Tool from 10.3.1 to search for two sources related to the research topic/area of investigation they drafted in the lesson. Students prepare to discuss how the two sources connect to the research topic/area of investigation for the following lesson, 10.3.2 Lesson 2.

- Students follow along.

Homework

Use the Pre-Search Tool from 10.3.1 to search for two sources related to the research topic/area of investigation you drafted in the lesson. Prepare to discuss how the two sources connect to the research topic/area of investigation for the following lesson, 10.3.2 Lesson 2.

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10.3 Common Core Learning Standards Tool

Name:		Class:		Date:	

CCS Standards: Reading—Informational		I know what this is asking and I can do this.	This standard has familiar language, but I haven't mastered it.	I am not familiar with this standard.
RI.9-10.1.a.	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. a. Develop factual, interpretive, and evaluative questions for further exploration of the topic(s).			

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CCS Standards: Writing		I know what this is asking and I can do this.	This standard has familiar language, but I haven't mastered it.	I am not familiar with this standard.
W.9-10.1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. Explore and inquire into areas of interest to formulate an argument.			
W.9-10.1.a	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. Explore and inquire into areas of interest to formulate an argument. a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.			

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CCS Standards: Writing		I know what this is asking and I can do this.	This standard has familiar language, but I haven't mastered it.	I am not familiar with this standard.
W.9-10.1.b	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. Explore and inquire into areas of interest to formulate an argument. b. Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns.			

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CCS Standards: Writing		I know what this is asking and I can do this.	This standard has familiar language, but I haven't mastered it.	I am not familiar with this standard.
W.9-10.1.c	Write arguments to support claims in the analysis of substantive topics or text, using valid reasoning and relevant and sufficient evidence. Explore and inquire into areas of interest to formulate an argument. c. Use words, phrases, and clauses to link the major sections of the text, create cohesion and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.			

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CCS Standards: Writing		I know what this is asking and I can do this.	This standard has familiar language, but I haven't mastered it.	I am not familiar with this standard.
W.9-10.1.d	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. Explore and inquire into areas of interest to formulate an argument. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.			
W.9-10.1.e	Write arguments to support claims in the analysis of substantive topics or text, using valid reasoning and relevant and sufficient evidence. Explore and inquire into areas of interest to formulate an argument. e. Provide a concluding statement or section that follows from and supports the argument presented.			

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CCS Standards: Writing		I know what this is asking and I can do this.	This standard has familiar language, but I haven't mastered it.	I am not familiar with this standard.
W.9-10.5	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.			
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.			

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CCS Standards: Writing		I know what this is asking and I can do this.	This standard has familiar language, but I haven't mastered it.	I am not familiar with this standard.
W.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.			

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CCS Standards: Language		I know what this is asking and I can do this.	This standard has familiar language, but I haven't mastered it.	I am not familiar with this standard.
L.9-10.3.a	Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening. a. Write and edit work so that it conforms to the guidelines in a style manual (e.g., *MLA Handbook*, Turabian's *Manual for Writers*) appropriate for the discipline and writing type.			
L.9-10.6	Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.			

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CCS Standards: Language		I know what this is asking and I can do this.	This standard has familiar language, but I haven't mastered it.	I am not familiar with this standard.
L.9-10.2.a	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.			
L.9-10.2.b	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. b. Use a colon to introduce a list or quotation.			
L.9-10.2.c	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. c. Spell correctly.			

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Model Area Evaluation Checklist

Name:		Class:		Date:	

Area Evaluation Checklist		✓	Comments
I. COHERENCE OF AREA What is the area of investigation?	The researcher can speak and write about the area of investigation in a way that makes sense to others and is clearly understood.	☐	Ownership of and control over how tissue is used once it is removed from the body
II. SCOPE OF AREA What do you need to know to gain an understanding of the area of investigation?	The questions necessary to investigate for gaining an understanding require more than a quick review of easily accessed sources. The questions are reasonable enough so that the researcher is likely to find credible sources that address the issue in the time allotted for research.	☐	Quite a few questions would work for this area of investigation, including: What happens to tissue once it is removed from the body? When do patients relinquish the right to their tissue?
III. RELEVANCE OF AREA TO ARGUMENT Are there multiple claims that compose the area of investigation?	The area of investigation is relevant to an argument because multiple claims can be made about that area of investigation.	☐	There are several claims about tissue ownership. Some think that researchers should own it, and some think that ownership should revert to the patient.
IV. INTEREST IN AREA Why are you interested in this area of investigation?	The researcher is able to communicate genuine interest in the area of investigation. Gaining an understanding of the area would be valuable for the student.	☐	My mother had surgery and I wonder what happened to her tissues. I think this is a common situation for many people and these questions need to be asked.

Evaluate the strength of your selected area of investigation. Explain whether you plan to use this as your final topic and explain why or why not.

I plan to use this as my final topic because I have found many perspectives and claims on this issue and there are many questions that need to be answered about this topic. Also, the area of investigation is related to the larger topics surfaced in the Skloot text and I am very interested in learning more about the issue because it does not have a defined answer at this point.

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10.3.2 Lesson 2

Introduction

In this lesson, students learn how to generate more specific inquiry questions to frame their research. Students were introduced to inquiry questions in 10.3.1, but in this lesson, they learn how to craft specific inquiry questions for their selected research topics/areas of investigation developed in the 10.3.2 Lesson 1.

In the beginning of the lesson, students engage in a research process check-in during which they review the Student Research Plan Handout, which serves as a guide to the research process and a place to reflect on next steps. Next, students review inquiry questions from 10.3.1 and help generate inquiry questions for their peers' research topics/areas of investigation. Individually, students use a Specific Inquiry Questions Checklist to vet the inquiry questions brainstormed by their peers and finalize a list of at least five specific inquiry questions that guide their research. For the lesson assessment, students select and submit their two strongest questions. For homework, students continue to craft, vet, and refine five additional specific inquiry questions for their research topic/area of investigation using the Specific Inquiry Questions Checklist.

Standards

Assessed Standard(s)	
RI.9-10.1.a	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. a. Develop factual, interpretive, and evaluative questions for further exploration of the topic(s).
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
Addressed Standard(s)	
SL.9-10.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 9–10 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively.

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Assessment

Assessment(s)
Student learning is assessed via the specific inquiry questions they generate during this lesson that guide their research. ⓘ The inquiry questions developed depend on students' specific research topics/areas of investigation. Students' two specific inquiry questions are evaluated using the Specific Inquiry Questions Checklist criteria.
High Performance Response(s)
A High Performance Response should: • Align to the criteria detailed in the Specific Inquiry Questions Checklist. See Model Specific Inquiry Checklist for High Performance Response. ⓘ The Specific Inquiry Checklist serves as the assessment for this lesson.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text:	
• Standards: RI.9-10.1.a, W.9-10.7, SL.9-10.1	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability	2. 10%
3. Student Research Plan	3. 5%

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4. Inquiry Questions Review	4. 10%
5. Small Group Brainstorm	5. 25%
6. Vetting Specific Inquiry Questions	6. 20%
7. Finalizing Specific Inquiry Questions and Assessment	7. 20%
8. Closing	8. 5%

Materials

- Student copies of the 10.3 Common Core Learning Standards Tool (refer to 10.3.2 Lesson 1)
- Student copies of the Pre-Search Tool (refer to 10.3.1 Lesson 8)
- Research Portfolios (refer to 10.3.2 Lesson 1)
- Copies of the Student Research Plan Handout for each student
- Copies of the Specific Inquiry Questions Checklist 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.
	Italicized text indicates a vocabulary word.
▸	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 standards for this lesson: RI.9-10.1.a and W.9-10.7. In this lesson, students learn how to generate specific inquiry questions to frame their research. First, students engage in a research process check-in where they overview the Student Research Plan Handout. Then students work in small groups to help generate inquiry questions for their peers' research topics/areas of investigation. Using the Specific Inquiry Questions Checklist to vet the brainstormed inquiry questions, students finalize a list of at least five specific inquiry questions to guide their research. Students turn in two of these specific inquiry questions for assessment purposes.

- ▸ Students look at the agenda.

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ⓘ Remind students of their work with W.9-10.7 in 10.3.2 Lesson 1.

Distribute or ask students to take out their copies of the 10.3 Common Core Learning Standards Tool. Inform students that in this lesson they begin to work with a new standard: RI.9-10.1.a. Instruct students to individually read this standard on their tools and assess their familiarity with and mastery of it.

- Students read and assess their familiarity with standard RI.9-10.1.a.

Instruct students to talk in pairs about what they think the standard and substandard mean. Lead a brief discussion about these standards.

- Student responses may include:
  - Students use factual questions to research a subject
  - Students ask questions that help them interpret what they read
  - Students ask questions about evaluating what they read and to help them learn more about the topic

Explain that this standard is assessed because as part of today's lesson, students generate and craft a variety of inquiry questions including *factual*, *interpretive*, and *evaluative* questions. As necessary, explain to students that *factual* means "based on or restricted to facts"; *interpretive* means "serving to explain or provide the meaning of"; and *evaluative* means "serving to determine the significance, worth, or quality of."

- Students write the definitions of *factual*, *interpretive*, and *evaluative* in a vocabulary journal.

Explain that later in the lesson, students craft specific inquiry questions that explore their topics through these types of questions.

- Students listen.

Activity 2: Homework Accountability 10%

Direct students to take out the Pre-Search Tool from the previous lesson's homework. Instruct students to talk in pairs about two sources they discovered relating to the research topic/area of investigation and explain how the two sources connect to the research topic/area of investigation.

- Student responses vary based on individual research questions and research conducted, but may include:
  - My area of investigation is cloning. I found one source called "Cloning Stem Cells: What Does it Mean?" from CNN.com. The source said that researchers could clone new embryos from stem cells. Because embryos contain tissue that has not yet differentiated, this could give rise to new cell lines. Another source is from the U.S. government that explains what cloning is and how it works.

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- I am researching doctor-patient confidentiality. One of the sources I found gave me a lot of background information, including the fact that doctor-patient privilege is a state law and not all states have it. It seems that doctor-patient confidentiality is important for the mental health argument in gun control laws. The question is whether doctors have to report a patient's mental health status before the patient can get a gun. That took me to another source on Psych Central about doctor-patient confidentiality regarding gun laws.

Activity 3: Student Research Plan 5%

Explain that students track the research process at the beginning of most lessons to ensure they understand the research steps, have no outstanding questions or concerns, and are making progress in their research. Instruct students to take out their Research Portfolios from 10.3.2 Lesson 1.

- Students listen and take out their Research Portfolios.

Distribute the Student Research Plan Handout to each student. Explain that this plan helps them track their research progress by describing the research process outcomes they should see at each step. Remind students that the research process is iterative, like a flowchart, as the Student Research Plan Handout indicates. There are specific steps that are "completed," but many steps in the process need to be repeated or revisited because research develops and builds on itself and can lead to different paths that may need to be explored.

- Students listen and examine the Student Research Plan Handout.

ⓘ Note that students are asked to reflect on the specific language of the research standards (W.9-10.7 and W.9-10.8) related to the plan's multiple parts, to ensure that they are tracking their own progress in meeting the research standards and implementing the standards' skills during the research process.

ⓘ Remind students of the definition of the word *iterative* ("involving repetition relating to an operation or procedure") so they understand the research process is not a linear process, but has parts that may repeat based on answers, evidence, and conclusions discovered along the way.

Instruct students to examine Part 1 of the Student Research Plan Handout. Remind them that some of these research processes were conducted in 10.3.1.

- Students examine the Student Research Plan Handout.

ⓘ The research processes addressed in Part 1 of the Student Research Plan Handout are completed in this lesson and students journal about their research progress and next steps in 10.3.2 Lesson 3.

Instruct students to file the Student Research Plan Handout in the front of the Research Portfolio in section 1.

- Students file their Student Research Plan Handouts.

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Activity 4: Inquiry Questions Review 10%

Instruct students to do a Turn-and-Talk to review inquiry questions (taught in 10.3.1) by answering the following question.

What are key components of effective inquiry questions?

- Student responses may include:
  - The questions should lead to rich and relevant knowledge and information
  - They should be questions you want to answer
  - They are questions that can be explored through research
  - They should be questions that are clear or easily understood
  - The questions should lead to more questions
  - They are questions to which you do not already know the answer

ⓘ **Differentiation Consideration:** If students need help with this review, instruct them to refer to the Posing Inquiry Questions Handout from 10.3.1 Lesson 3.

ⓘ Consider reminding students of the language of standard RI.9-10.1.a discussed in the lesson opening. The inquiry questions they develop should seek answers regarding facts, explanation/understanding, and evaluation. Several inquiry questions should be developed in each of these categories.

ⓘ **Differentiation Consideration**: Consider writing notes from the discussion for students to see and apply during the small group brainstorm.

Remind students that they posed inquiry questions in 10.3.1 as an exploratory process to identify general areas of interest and confirm that a topic or area of investigation could be supported through research. The questions were more general in nature. The role and nature of the inquiry questions change now that students have established a research topic/area of investigation. The questions become more specific, serving as the "frame" to guide the exploration of the research topic/area of investigation. Explain to students that the focus of the following activity, the small group brainstorm, is to generate inquiry questions. Students should try to think about specific inquiry questions but the goal of the brainstorm is to generate a large number of questions. Later in the lesson, students vet the questions for specificity.

- Students listen.

Remind students that in this module, they are asked to write a research-based argument paper on an issue. They have selected a research topic/area of investigation, but by the end of 10.3.2, they have crafted a problem-based question to explore through research. Ask students the following question:

How might asking inquiry questions about an issue be the same or different from what has been discussed previously in this unit?

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- Student responses may include:
  - Inquiry questions about an issue might guide an exploration of the issue's various claims.
  - Inquiry questions might identify which parts of the issue have strong claims, supported by evidence, while also helping to identify which parts of the issue may not be useful or debatable.
  - Inquiry questions can lead you to perspectives on the issue that you may not have considered.

ⓘ Remind students of the definition of *issue.* An *issue* is an important aspect of human society for which there are many different opinions about what to think or do. *Issue* was taught in 10.3.1 Lesson 3.

ⓘ Remind students that they need to identify an issue to research. Compare two possible issues to show which might be a better fit for research-based argument exploration: "why doctors need human tissue for research," and "whether patients should be paid for excised tissue." Both of these topics are important aspects of human society. However, "why doctors need human tissue for research" is not an issue because it does not include many different opinions about what to think or do. "Whether patients should be paid for excised tissue" does elicit many different opinions and suggestions about that topic and this can lead to more interesting and exploratory inquiry questions.

Share with students the model research topic/area of investigation from 10.3.2 Lesson 1: tissue ownership.

- Students listen.

Instruct students to form pairs and Turn-and-Talk about three possible inquiry questions that might frame effective research for the model research topic/area of investigation.

Lead a share out of the possible inquiry questions and write them on the board or chart paper as examples for students to see.

- Student responses may include:
  - Can people sell their own tissues?
  - What can happen to tissue once it is removed from the body?
  - What are doctors and researchers supposed to do with body parts?
  - What is involved in organ donation?
  - For what kind of research is human tissue used?

ⓘ At this point in the lesson, the sample student responses do not need to be ideal inquiry questions. Later in the lesson, students vet questions and refine them into stronger and more specific inquiry questions that yield more than yes/no answers.

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Activity 5: Small Group Brainstorm 25%

Inform students they are going to participate in a small group brainstorm to help them generate inquiry questions that explore as many potential aspects of their individual research topic/area of investigation as possible. The goal is for each student to walk away from the brainstorm with a plentiful volume of questions that can later be condensed and refined to frame their specific research topic/area of investigation. Remind students that the questions could be seeking factual answers, explanation, understanding, evaluation, or a combination of some or any of these.

Explain the directions for the small group brainstorm. Each student in the small group presents his or her research topic/area of investigation to the group. The group then generates as many inquiry questions as possible for that student's research topic/area of investigation. The student presenting a research topic/area of investigation records all the questions the group has brainstormed. The process continues until all students have presented their individual research topics/areas of investigation and the rest of the group has brainstormed questions.

- Students listen.

ⓘ Consider reminding students that in this lesson, they continue the work of collaborative discussion outlined in SL.9-10.1, taught in previous modules.

Instruct students to transition into small groups and complete the inquiry question brainstorm for each student in the group.

- Student questions vary; questions brainstormed depend on the student's individual research questions/problems.

ⓘ **Differentiation Consideration:** Students learned about crafting and refining inquiry questions in 10.3.1. However, if students struggle during the small group activity to brainstorm effective inquiry questions, consider using the Specific Inquiry Questions Checklist when circulating to support students who are struggling. Recommend that students consider the checklist's criteria when brainstorming possible inquiry questions.

ⓘ Encourage students to build on and borrow questions from each other as they brainstorm. Many research topics may be related since all of the students generated their areas of investigation from the Skloot text in 10.3.1.

ⓘ Consider reassuring students that they should not worry about the specificity of the questions right now; for the purpose of the small group brainstorm, students need to help their peers generate as many inquiry questions as possible for their research topics/areas of investigation.

ⓘ Consider placing students in small groups that should remain consistent throughout the module. It may be helpful to form groups ahead of time to maximize the range of different research topics and questions within each group. (For example, one group might consist of a student researching genetic

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predisposition for genetic behavior, a student looking at racial disparities in health outcomes, and a student exploring the issue of research on prisoners and vulnerable populations.) The goal of these groups is to create small communities of inquiry/research teams that provide support and are accountable to each other. Students should know about their teammates' research topics/areas of investigation. Students should share claims and evidence that arise from their individual inquiries and learn from each other's research processes, which they may potentially use to refine their own research topics/areas of investigation and inquiry questions.

Activity 6: Vetting Specific Inquiry Questions 20%

Transition students into a whole-class structure and distribute the Specific Inquiry Questions Checklist to each student. Explain to students that in this part of the lesson they use the Specific Inquiry Questions Checklist to vet, select, and refine at least five specific inquiry questions from the previous small group brainstorm activity.

- Students listen and examine the Specific Inquiry Questions Checklist.

Model for students how to use the Specific Inquiry Questions Checklist using a question brainstormed in the Inquiry Questions Review Activity (Activity 4).

Instruct students to look at the first question:

Can people sell their own tissues?

Model for students how to evaluate the question using the Specific Inquiry Questions Checklist.

In relation to this question, instruct students to look at criterion number 1: "Does the question have an appropriate scope or purpose? Does it focus on an important aspect of the research topic/area of investigation?" Explain to students that this question does relate to the research topic/area of investigation and focuses on an aspect of the research topic/area of investigation because it goes directly to the heart of the topic: tissue ownership. If people are allowed to sell their tissues, they own their tissues until they sell them, at which point they become someone else's property.

Instruct students to look at criterion number 2 on the Specific Inquiry Questions Checklist: "Is the question useful? Will it lead to meaningful inquiry?" Explain to students that the question is useful, but it may not lead to further inquiry. If the answer is no, for example, the inquiry would end.

Instruct students to look at criterion number 3: "Is the question answerable through research?" Explain to students that this is answerable through research. We could find information about whether or not it is legal in different places to sell our own tissues.

Instruct students to look at criterion number 4: "Is your question understandable or clear?" Explain to students that the question is clear and understandable because it is a simple, straightforward question that requires a factual response.

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Instruct students to look at criterion number 5: "Does your question require multiple answers and possibly more questions?" Explain to students that the question requires a yes/no answer and not multiple answers and so it does not fit this criterion.

Instruct students to look at criterion number 6: "Is your question's answer unknown to you?" Explain to students that the answer is partially known. Some people can sell their tissues to egg and sperm banks; however, it is currently unknown whether other tissues can be sold. Also, some people, like Ted Slavin, could sell their tissues, but some, like John Moore, could not.

Ask students the following question:

How could you rephrase this question to be an inquiry question for which you do not already have the answer?

- Student answers may include:
  - What kinds of tissues can people sell?
  - Where can people sell their tissues?
  - What are some ethical issues with selling human tissues?
  - What kinds of tissues can people sell while they are still alive?

Point out that the original question could be answered by yes or no. Model for students how to tailor the inquiry question to make it more specific, to focus on an aspect of the model research topic/area of investigation, and to make it require more than a yes/no answer. Explain to students that a way to alter the question is to think about the type of answers they want to get. Beginning a question with the word *can* requires the answer to be yes or no. Changing the beginning of the question can alter the answer they receive: "How do people sell their tissues?" Revising the question in this way also leads to more inquiry.

- Students follow along.

Guide students through the Specific Inquiry Questions Checklist to vet the next inquiry question ("What kinds of human tissue are used by researchers?") by having them check off the appropriate categories on their checklist.

- Students independently practice vetting the new inquiry question by using the Specific Inquiry Questions Checklist.
- See the Model Specific Inquiry Questions Checklist for possible student responses.

ⓘ **Differentiation Consideration:** If students need more support, consider having students practice in pairs vetting another question from the Inquiry Questions Review (Activity 4).

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Activity 7: Finalizing Specific Inquiry Questions and Assessment 20%

Instruct students to individually examine their list of inquiry questions generated from the small group brainstorm activity and use the Specific Inquiry Questions Checklist to select, vet, and refine at least five specific inquiry questions for assessment.

ⓘ This process is appropriate for a lesson assessment because students previously crafted and refined inquiry questions in 10.3.1.

Instruct students to choose two of the richest or strongest specific inquiry questions and copy the questions on a separate sheet of paper.

- Students complete the inquiry question assessment.

ⓘ Assess each student's two specific inquiry questions using the language of the Specific Inquiry Questions Checklist to provide feedback.

ⓘ **Differentiation Consideration:** If students struggle with choosing the richest or strongest specific inquiry questions, instruct them to think about choosing the inquiry questions that might lead to the richest inquiry or multiple sources of information.

Collect each student's two specific inquiry questions.

Instruct students to file their five specific inquiry questions in section 1 of their Research Portfolios ("Defining an Area of Investigation").

- Students file their questions in their Research Portfolios.

ⓘ The Specific Inquiry Checklist serves as the assessment for this lesson.

Activity 8: Closing 5%

Display and distribute the homework assignment. For homework, instruct students to continue crafting, vetting, and refining five more specific inquiry questions for their research topic/area of investigation using the Specific Inquiry Questions Checklist.

- Students follow along.

Homework

Continue crafting, vetting, and refining five more specific inquiry questions for your research topic/area of investigation using the Specific Inquiry Questions Checklist.

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Student Research Plan Handout

Name:		Class:		Date:	

Research Process	Process Outcomes	Associated Materials	Standards
Part 1: Initiating Inquiry	• Generates, selects, and refines inquiry questions to explore topics. • Develops 2–3 research topics/areas of investigation from the research topic exploration. • Develops inquiry questions about areas of investigation. • Conducts pre-searches of areas of investigation. • Arrives at a research-based topic by vetting areas of investigation. • Generates specific inquiry questions for the research topic/area of investigation.	• Surfacing Issues Tool • Posing Inquiry Questions Handout • Exploring a Topic Tool • Pre-Search Tool • Area Evaluation Checklist • Specific Inquiry Questions Checklist	W.9-10.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
Part 2: Gathering Information	• Plans for searches by determining key words/phrases and finding credible and relevant sources. • Assesses sources for how credible, relevant, and accessible they are. • Annotates sources and records notes that help answer the inquiry questions.	• Potential Sources Tool • Assessing Sources Handout • Taking Notes Tool • Research Frame • Conducting Independent Searches Checklist • Evidence-Based Arguments Checklist	W.9-10.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. W.9-10.8: Gather relevant

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	• Evaluates arguments using an evidence-based arguments checklist. • Builds an initial Research Frame with a problem-based question to guide independent searches. • Conducts searches independently.		information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
Part 3: Organizing and Synthesizing Inquiry	• Organizes, connects, and synthesizes evidence to develop evidence-based claims about inquiry questions and inquiry paths. • Further organizes, connects, and synthesizes evidence-based claims about inquiry paths and the problem-based question. • Reviews and synthesizes the research to develop a written evidence-based perspective.	• Forming Evidence-Based Claims Tool • Organizing Evidence-Based Claims Tool • Evidence-Based Claims Criteria Checklist • Forming Counterclaims Tool • Evidence-Based Perspective Rubric	W.9-10.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

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Specific Inquiry Questions Checklist

Name:		Class:		Date:	

Research Question/Problem (Area of Investigation):

Question #1:

Question #2:

Question #3:

Question #4:

Question #5:

Criteria	Q1	Q2	Q3	Q4	Q5
1. Does the question have an appropriate scope or purpose? (Does it focus on an important aspect of the issue?)					
2. Is the question useful? Will it lead to meaningful inquiry?					

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Criteria	Q1	Q2	Q3	Q4	Q5
3. Is the question understandable or clear?					
4. Is the question answerable through research?					
5. Does the question require multiple answers and possibly more questions?					
6. Is your question's answer unknown to you?					

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Model Specific Inquiry Questions Checklist

Name:		Class:		Date:	

Research Topic/Area of Investigation: tissue ownership

Question #1: Can people sell their tissues?

Question #2: What kinds of human tissue are used by researchers?

Question #3: What can happen to removed human tissue from the body?

Question #4: Is tissue donation related to organ donation?

Question #5: How can stolen tissues affect a family?

Criteria	Q1	Q2	Q3	Q4	Q5
1. Does the question have an appropriate scope or purpose? (Does it focus on an important aspect of the issue?)	Yes, it does relate. It focuses on a key aspect of the issue of tissue ownership.	Yes. I need to answer this question to be able to explain the issues involved in human tissue research.	Yes, this can help me understand what happens to tissue once it is removed from the body.	Yes, tissue donation and organ donation are treated differently, and I want to know why.	The effect of how a relative's body is used after death is not that important to the scope.
2. Is the question useful? Will it lead to meaningful inquiry?	No. If the answer is no, inquiry ends.	This may be useful, but I am not sure it leads to more inquiry. I might just have a list at the end.	Maybe. I think this leads to different cases that describe what happens to tissue when removed during surgery.	Yes, it is useful, but it is a yes/no question, so I have to revise.	This question does not relate directly to tissue ownership, but it may be helpful in understanding the issue.

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Criteria	Q1	Q2	Q3	Q4	Q5
3. Is the question answerable through research?	Yes, it can be answered through research.	Yes, it can be answered through research.	Yes, it can be answered through research.	Yes, it can be answered through research.	No, this is harder to research. I might need to revise.
4. Is the question understandable or clear?	Yes, it is understandable and clear because it asks for a factual answer.	Yes, it is understandable and clear because it asks a factual question.	No. I think I need to revise to "What can happen to human tissue once it is removed from the body?"	Yes, it is understandable and clear because it asks for an interpretive or evaluative answer.	Yes, it is understandable because it asks for an evaluative answer, but it may be hard to research.
5. Does the question require multiple answers and possibly more questions?	No, it only has one answer. I need to rephrase it.	Yes, there are likely to be many answers to this question and it leads to questions about ownership within those uses.	Yes, it has many possible answers and leads to more questions about how removed tissue is used.	Yes, this is likely to be a complicated answer with different facets.	Yes, this may have different answers, but it might not lead to more useful questions.
6. Is your question's answer unknown to you?	It is partially known. I know that some tissues can be sold but I want to know about others.	Yes, I do not know the answer.	Yes, I do not know the answer.	Yes, I do not know the answer.	No, I know how the stolen tissue affected the family of Henrietta Lacks.

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10.3.2 Lesson 3

Introduction

In this lesson, students continue to refine inquiry questions as they begin to frame their research by planning for independent searches. Students learn how to select inquiry questions, plan search locations, and use key words and phrases to conduct effective and efficient research. Additionally, students learn how to assess sources formally for credibility, accessibility, and relevance.

Students begin the lesson by engaging in a research project check-in during which they review their Student Research Plans and informally journal about their research progress and next steps. They then learn how to effectively plan for searches by following a demonstration on how to select inquiry questions that focus research, how to determine the optimal location for finding resources, and how to choose key words or phrases that elicit an efficient search. From there, students discuss how these steps can contribute to finding *credible*, *accessible*, and *relevant* sources using the Assessing Sources Handout. Students then search for *credible*, *accessible*, and *relevant* sources using key words or phrases from their selected inquiry question and record source information on the Potential Sources Tool. Throughout the lesson, teachers and students are encouraged to collaborate with librarians/media specialists as partners in the research process.

The learning in this lesson is assessed via a Quick Write that asks students why the three categories discussed in the Assessing Sources Handout (credibility, accessibility, and relevance) are important to consider when examining potential sources. For homework, students use the Potential Sources Tool to record and evaluate information about three potential sources and explain how two of those sources meet the criteria for being credible, accessible, and relevant.

Standards

Assessed Standard(s)	
W.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.

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Addressed Standard(s)	
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

Assessment

Assessment(s)
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. • Why are the three categories discussed in the Assessing Sources Handout (credibility, accessibility, and relevance) important to consider when examining potential sources? ⓘ Students should use the verbiage of the Assessing Sources Handout to support their response. ⓘ Student responses are assessed using the Assessing Sources Handout.
High Performance Response(s)
A High Performance Response should: • Articulate that each category is an important aspect of effective and efficient research (e.g., the categories ensure a source is: high in quality or an authority on the topic, based on publisher, publication date, author, and source type (*credibility*); interesting and comprehensible according to a student's ability (*accessibility*); and related to the research topic and purpose in an appropriate way, while being adequate in scope and richness (*relevance*)).

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

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Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards: • Standards: Standards: W.9-10.8, W.9-10.7 • Model Source Text: "A Court Allows Payment for Bone Marrow. Should People be Able to Sell Their Parts?" by Alice Park (http://healthland.time.com/2012/07/02/a-court-allows-payment-for-bone-marrow-should-people-be-able-to-sell-their-parts/)	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 10%
2. Homework Accountability and Research Project Check-In	2. 10%
3. Planning for Searches	3. 25%
4. Assessing Sources	4. 40%
5. Quick Write	5. 10%
6. Closing	6. 5%

Materials

- Student copies of the 10.3 Common Core Learning Standards Tool (refer to 10.3.2 Lesson 1)
- Research Portfolios (refer to 10.3.2 Lesson 1)
- Copies of the Assessing Sources Handout for each student
- Copies of the Potential Sources Tool for each student (several copies)
- Electronic white board/document camera (optional)

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.
	Italicized text indicates a vocabulary word.
▸	Indicates student action(s).

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🗨	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 the assessed standard for this lesson: W.9-10.8. Explain that students begin with a research project check-in during which they examine their Student Research Plans and informally journal about their research progress and next steps. They then learn how to effectively plan for searches though a demonstration of how to select inquiry questions that focus research, how to determine the optimal location for finding resources, and how to choose key words or phrases that elicit an efficient search. From there, students discuss how these steps can contribute to finding *credible*, *accessible*, and *relevant* sources. Students then search for these sources using key words or phrases from their selected inquiry question and record notes on their Potential Sources Tool.

- Students look at the agenda.

Distribute or ask students to take out their copies of the 10.3 Common Core Learning Standards Tool. Inform students that in this lesson they begin to work with a new standard: W.9-10.8. Ask students to individually read this standard on their tools and assess their familiarity with and mastery of it.

- Students read and assess their familiarity with standard W.9-10.8.

Instruct students to talk in pairs about what they think the standard means. Ask students to consider in their responses how the standard relates to their current research work. Lead a brief discussion about the standard.

🗨 Student responses should include:

- We are starting our own research and this standard is about gathering information from multiple sources to conduct the research.
- *Authoritative* looks like the word *authority*, so it must mean that the information is from a *credible* or academic source. The research has to come from a location that has authority regarding the topic.
- Each source should be assessed to see if it corresponds to our research topics/areas of investigation. The source needs to be *relevant*, which means it should examine an aspect of the research topic/area of investigation or the research topic/area of investigation itself.
- It is important not to cheat or plagiarize (say that an idea is ours when it is not).

ⓘ Consider providing students with the following definitions: *authoritative* means "substantiated or supported by documentary evidence and accepted by most authorities in a field"; *plagiarism* means "an act or instance of using or closely imitating the language and thoughts of another author without authorization and the representation of that author's work as one's own, as by not crediting the original author." Students were introduced to the definition of *relevant* in 10.3.1 Lesson 6.

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- Students write the definitions of *authoritative* and *plagiarism* in a vocabulary journal.

ⓘ In the following unit, 10.3.3, students learn more about the importance of and how to use citations to avoid *plagiarism* when they write.

ⓘ If students have completed the Odell Education: Research to Deepen Understanding unit, or grade 9 Module 3, then consider a review of this standard rather than a full-length discussion.

Explain to students that the standard W.9-10.8 works together with W.9-10.7 to guide the inquiry-based research conducted in this unit.

- Students listen

ⓘ Standard W.9-10.7 was introduced in 10.3.2 Lesson 1. Consider engaging students in a brief discussion of the relationship between W.9-10.8 and W.9-10.7.

Activity 2: Homework Accountability and Research Process Check-In 10%

Instruct students to take out their 10.3.2 Lesson 2 homework. Instruct students to talk in pairs about how they refined their five specific inquiry questions using the Specific Inquiry Questions Checklist Tool.

- Student responses vary, but may include:
  - I used the Specific Inquiry Questions Checklist Tool to narrow my initial five inquiry questions by making them more specific, complex, and eliciting rich responses that cannot be answered with yes/no. For example, I started out with the question: "Can people sell their own tissues?" While this question is specific, it is also a yes/no question, and therefore limits the scope of inquiry. I revised the question to "Why should people be able to sell their own tissues?"

ⓘ Consider asking students: What role do questions play in the research process?

Instruct students to take out the Student Research Plan in the front of their Research Portfolio. Remind students that they received the Student Research Plan in the previous lesson. Explain that the purpose of the plan is to help students track their research progress by informally assessing completed research activities and planning next steps in a research journal. Remind students that the research process is *iterative* (repeating) and *cyclical* (revolving or recurring in cycles), as the Research Plan suggests; there are specific steps that are not "completed" after one time. Journaling about the research process helps students track where they are in this iterative research process. Additionally, journaling helps students reflect on all the research skills that compose standards W.9-10.7 and W.9-10.8.

- Students listen.

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Instruct students to focus on Part 1 of the Student Research Plan and write a few sentences in their research journals about their research progress and next steps based on the process outcomes described in Part 1. Instruct students to use the language of the research standards (W.9-10.7 and W.9-10.8) when writing their journal responses.

- Student responses vary, but may include:
  - I was able to narrow down the various topics surfaced in Skloot's text to a few areas of investigation that I thought were worth exploring. I quickly realized with my pre-searches that researching areas like the history of cell tissue research might not be personally interesting to me and did not lend itself to as many inquiry questions. Instead, I chose to investigate the major aspects of the use and selling of cell tissue because it is going to provide many paths to explore, as revealed in my variety of specific inquiry questions that I was able to develop in 10.3.2 Lesson 2.

ⓘ Consider having students write in a notebook or on a separate sheet of paper for the research journal. Students can file the research journal in the Research Portfolio, along with the vocabulary journal.

ⓘ While students are writing, consider distributing the 10.3.2 Lesson 2 assessment with feedback so students can use this information for the reflection journal. Then students may file the assessment in their Research Portfolios for later use.

ⓘ The purpose of the research journal is to hold students accountable to the research process. Fidelity to the process is vital if students are to conduct effective and efficient research. Providing students with an opportunity to reflect on the research process helps them build a foundation for inquiry that takes place in subsequent modules.

ⓘ The W.9-10.7 language aligns to Part 1 of the Student Research Plan includes: "Conduct short as well as more sustained research projects to answer a question (including a self-generated question)"

Instruct students to file the Student Research Plan in the front of their Research Portfolio and to organize 10.3.2 Lesson 2's homework and assessment in section 1.

- Students file their research and homework information.

Activity 3: Planning for Searches 25%

Explain to students that they are ready to plan for effective searches to conduct formal research now that they have established a research topic/area of investigation and crafted specific inquiry questions.

Inform students that when planning for effective inquiry-based research, there are several steps to follow:

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- Select a focus inquiry question
- Determine where to look for sources
- Choose key words or phrases to begin the search

Share with students that effective and efficient searches begin with a focus. The type of research they are conducting in this unit is inquiry-based so the specific inquiry questions students develop for the overarching research topic/area of investigation guides the research focus. Explain to students that the first step in planning for productive searches is to select an inquiry question to focus the research.

Explain to students the following guidelines for selecting inquiry questions to focus research:

- Move from general inquiry questions to specific
- Move from questions that are easily answered to more complex questions with more interesting answers
- As needed, group like questions into themes or categories
- Remember that the questions can always evolve as knowledge and understanding deepens

  - Students listen.

Model for students how to select inquiry questions by displaying the following three model questions, focused on tissue ownership, for students to see:

What are doctors and researchers supposed to do with excised body tissue?

What are some ethical issues concerning the selling of human tissues?

What kinds of tissues can people sell while they are still alive?

Explain to students that the question "What are some ethical issues concerning the selling of human tissues?" is the best question to focus the research first because it is specific enough to generate concrete answers, but general enough to generate rich information. The first question may be too broad and general, while the third question focuses exclusively on what a person can sell while "still alive," and so may be too specific as a starting point.

  - Students examine the three model questions and follow along.

Explain that the second step in planning an effective search is to determine the best locations (physical or virtual) for finding the information about the selected inquiry question. Give students the following considerations to help them select and locate the right sources:

- What is my area of inquiry and where could I find sources? For example, if I am looking at tissue ownership, then the field is medical science. I can search in either that section of the library or an online source or website that specializes in the field.

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- What type of sources should I be looking for based on the type of information I want? For example, if I am looking for details about tissue ownership, I should investigate medical or science professional organizations, journals, or reports. If I am looking for information about an individual's experience with the issue of tissue ownership, I could look at news, science, or advocacy websites.

ⓘ Encourage students to enlist the assistance of a librarian/media specialist as they determine the best location(s) to find information.

Explain that the third step in planning an effective search is selecting the best key words and phrases for the online search. To determine what key words and phrases to use, instruct students to first consider their research topic/area of investigation. Specifically, they must consider the actual words they use to describe what that is. They should also consider the inquiry question itself. Both their research topic/area of investigation and the inquiry question contain words, concepts, and phrases students can use to begin searching.

- Students listen and follow along.

Demonstrate an online search with key words, concepts, or phrases using the model question:

What are some of the ethical issues concerning the selling of human tissues?

Based on this question and the previous discussion about selecting key words/phrases, this question could lead us to use phrases like "selling human tissue" and "human tissue ethics." The inquiry question, coupled with our stated research topic/area of investigation ("tissue ownership") brings additional phrases such as "tissue ownership" and "tissue research."

- Students listen.

Conduct two model searches as described below, and display the online search results for students to see. Instruct students to take brief notes on the results.

- Enter the search phrase: "selling human tissue"
- Examine results of the search
- Change the search phrase: "human tissue ethics"
- Examine results of the search

  - Students listen and take notes.

ⓘ Consider using an electronic white board or document camera to display the search results.

ⓘ Consult with a school librarian/media specialist for additional search phrase ideas if needed.

Instruct student pairs to discuss the following question:

Are these search results going to produce effective research?

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Alternate between the two searches, giving students an opportunity to compare results. Provide students with time to take brief notes.

- Students look at the searches and discuss the question.

Lead a brief discussion of the question.

- Student responses vary, but may include:
  - Both searches appear to offer potential sources because of the quality of where the sources come from. Search results came from a variety of places but these seem like interesting sources and many sources are appearing, which means we are on the right path. The first search yielded results from scientific organizations and governmental research groups, like the National Disease Research Interchange, the Medical Research Council, and the National Institutes of Health. The second search produced articles from periodicals such as the New England Journal of Medicine, the Medical Law Review, the New York Times, and the Journal of Lancaster General hospital.

ⓘ As an option for students who may want to investigate more complex texts, searches can be conducted using Google Scholar.

Inform students that substituting a key word with a *synonym* (a "word that means the same") or a similar word leads to more and sometimes different results. For example, enter the search words: human tissue "rights" instead of "ownership."

- Students listen.

Activity 4: Assessing Sources 40%

Explain to students that they have begun to establish an understanding of the importance of planning for efficient searches. They now focus on assessing potential sources for credibility, accessibility, and relevance. Explain that it is important to assess potential sources first before reading closely in order to maximize research, and avoid wasting time on resources that do not contribute to deeper understanding.

Distribute the Assessing Sources Handout to students and ask them to read it.

- Students read the Assessing Sources Handout.

Ask student pairs to discuss the following questions:

What are the three categories used to evaluate every potential source?

- The handout evaluates potential sources for credibility, accessibility (and interest level), and relevance (including richness).

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Remind students that in the 10.3.1 pre-searches they identified a variety of sources. In this lesson, they narrow their searches by looking for *credible, accessible,* and *relevant* sources for a specific research topic/area of investigation, while being mindful of the steps for planning effective and efficient research as discussed earlier in the lesson.

Direct students to look at the heading of the first section of the Assessing Sources Handout, "Assessing a Source Text's Credibility." Define the word *credibility* (form of the word *credible*) as "the quality of being believable or worthy of trust." Explain to students that sources with credibility are those that have proven their worth through multiple reviews from other authorities in the field, and extensive research on a topic. *Credible* sources have employed the same inquiry methods of research that the students are currently conducting. Explain further that when considering credibility, the handout takes into account a source's publisher, publication date, author, and type, as each being an important component in evaluating for credibility. Explain these factors are important because a source becomes less *credible* if it comes from a profit-based group, has outdated information, or is written by someone without expertise in the field.

- Students listen.

Direct students' attention back to the model searches conducted earlier in the lesson using the search phrase "human tissue research." Select two sources to open. Model for students how to quickly scan a web page and assess the credibility of each—without having to read the source in entirety—using the Assessing Sources Handout. Reinforce that students need to pay particular attention to details about the publisher (and possible connections to the topic), the date of publication, the author's credentials (and connections to the topic), and the type of source.

- Students reference the Assessing Sources Handout, scan the displayed source, and discuss the source's credibility.

ⓘ Point out to students that the first items listed on a search results page are often paid advertisements, separated only subtly from the rest of the results.

ⓘ Ideally, the two model sources selected exemplify one *credible* source and one unreliable source so students can assess the differences.

ⓘ Advise students to ask the teacher, librarian, or media specialist if they are not certain about the credibility of a source.

ⓘ Refer back to the search page and inform students of the differences between web addresses that end in .org, .com, .gov, and .edu. These are referred to as "top level domains." Discuss that .org, .gov, and .edu websites can often be considered *credible* because they come from non-profit, government, or education organizations respectively and typically provide more objective information that is not profit-driven, as can be the case with .com addresses. This is not a rule, however, and credibility cannot be judged solely on a website's top-level domain.

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Direct students to look at the second section of the Assessing Sources Handout underneath "Assessing a Source Text's Accessibility and Interest Level." Define the term *accessible* as "easy to approach or use". Explain to students that *accessible* sources are those that are comprehensible based on a reader's background knowledge and understanding. Additionally, *accessible* sources should be interesting to the reader and align with established inquiry questions. Open one of the model sources used in the previous exercise and discuss as a group how it meets or does not meet the criteria for being accessible.

- Students reference the Assessing Sources Handout, scan the source, and discuss accessibility of the source.

ⓘ Make sure students understand that evaluating a source for accessibility is more subjective in nature, depending on an individual's reading ability and interest level. If after reading two paragraphs of the source, a student cannot comprehend the information or has no interest in what is being communicated, it may be considered inaccessible for that student.

Direct students to look at the third section of the Assessing Sources Handout underneath "Assessing a Source Text's Relevance and Richness." Define the term *relevance* (form of the word *relevant*) as "relating to a subject in an appropriate way." Explain that *relevant* sources are those that are related to the inquiry question and provide accurate, useful, and rich information on the topic with connections to other sources. Relevant sources should further a researcher's purpose and provide well-supported information. Open the model source used in the previous exercise and discuss as a group how it meets or does not meet the criteria for being *relevant*.

- Students reference the Assessing Sources Handout, scan the source, and discuss the relevance of the source.

Based on the information learned from the Assessing Sources Handout, ask students to think of examples of sources that might not be *credible*, *accessible*, or *relevant*.

- Student responses may include:
  - Wikipedia might not be a *credible* source because it is a crowd-sourced website to which many people who may not have expertise or authority on the topic can contribute.
  - High-level scholarly articles written for professionals might be in*accessible* because the text could be too complex to understand.
  - A source that is twenty years old and only marginally relates to the topic might not be *relevant* because the information it contains may no longer be accurate.

Explain to students that as a group the class now practices assessing a model source ("A Court Allows Payment for Bone Marrow. Should People Be Able to Sell Their Parts?" by Alice Park) for credibility, accessibility, and relevance. Display the Potential Sources Tool to students and instruct them to read it.

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- Students review the Potential Sources Tool.

ⓘ The model source "A Court Allows Payment for Bone Marrow. Should People Be Able to Sell Their Parts?" by Alice Park is available online through http://time.com.

Briefly highlight the components of the tool and explain that it is used to record basic information about all potential sources and evaluate usefulness according to credibility, accessibility, and relevance.

- Students listen.

ⓘ Consider using a model source from one of the searches conducted earlier in the lesson for consistency purposes.

Display the Alice Park model source for reference as use of the Potential Sources Tool is demonstrated.

At the top of the page, after "Topic" write "Tissue Ownership." After "Area of Investigation," also write "Tissue Ownership." On the top left, number the source (begin with 1). Then record the following information about the source:

- Title: A Court Allows Payment for Bone Marrow. Should People Be Able to Sell Their Parts?
- Location: http://healthland.time.com/2012/07/02/a-court-allows-payment-for-bone-marrow-should-people-be-able-to-sell-their-parts/
- Author: Alice Park
- Text Type (e.g., article, interview transcript, essay, etc.): Internet article from http://time.com
- Publication Date: 2012

Read aloud the first two paragraphs of the model source, then record pertinent information in the box labeled "General Information/Key Ideas/Personal Comments" as students watch. Explain that this box is intended to capture a researcher's initial reactions about a source.

- General Information/Key Ideas/Personal Comments: This article considers a person being able to make money by selling their bone marrow due to a recent U.S. appeals court decision making it legal to do so. The article also points out how helpful this decision is for thousands of sick patients who need bone marrow transplants. Then it begs the question: "What other body parts might next be up for sale?"

  - Students listen and follow along.

ⓘ Explain that the final box, "Connections to Inquiry Paths" is a space for tracking how a given source connects to other related aspects of research, and is used as their research develops further in the process.

Finally, assess the model source for its *credibility*, *relevance*, and *accessibility* in the check boxes at the bottom of the box, talking through the rating process so students can hear the mental processing used for making accurate evaluations, using the Assessing Sources Handout as a guide. This article's *credibility*

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can be rated as "High" because it comes from a reliable, objective source, and references court documents and experts in the field of medical science. The article's *relevance/richness* can be rated as "High" because it deals specifically with the issue of tissue ownership and related ethics. The article's *accessibility/interest* can be rated as "High" because it is written in a manner that I can read and is easily understandable for people outside the medical science profession.

ⓘ Students are not expected to read the text closely at this point. The purpose of this tool is to help students locate useful sources again later.

ⓘ A completed Model Potential Sources Tool is in included at the end of the lesson; consider distributing it to students for support as they begin independent searching.

Activity 5: Quick Write 10%

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

Why are the three categories discussed in the Assessing Sources Handout (credibility, accessibility, and relevance) important to consider when examining potential sources?

Remind students to use the Assessing Sources Handout to guide their written responses.

- Students listen and read the Quick Write prompt.

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

Transition to the independent Quick Write.

- Students independently answer the prompt.
- See the High Performance Response at the beginning of this lesson.

ⓘ Students' assessed responses to this lesson's Quick Write informs their work in the next lesson, 10.3.2 Lesson 4. Collect student responses to redistribute in the next lesson.

Activity 6: Closing 5%

Display and distribute the homework assignment. Distribute an additional copy of the Potential Sources Tool to students. For homework, instruct students to conduct their own searches using an inquiry question they have crafted and vetted for specificity and complexity from 10.3.2 Lesson 2. Remind them to think about the most productive places to look for research, as well as the optimal key words to enter in search engines. Instruct students to reference the Assessing Sources Handout as they search.

In addition, instruct students to use the Potential Sources Tool to record and evaluate information regarding three more potential sources and explain how two of those sources meet the criteria for being

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credible, *accessible*, and *relevant*. Ask students to use this lesson's vocabulary wherever possible in their written responses.

- Students follow along.

ⓘ **Differentiation Consideration:** Some of the topics students are researching may yield complex or inaccessible texts. To address this concern, consider recommending that students make use of free databases accessible through http://novelnewyork.org/ such as Grolier, Gale, and ProQuest; these databases allow searches by subject/keyword and students may filter the searches so that only texts within certain Lexile ranges are returned. Consider collaborating with a librarian or media specialist to access these databases and create filtered searches that support students' reading levels.

Homework

Continue the preliminary research process using an inquiry question to focus your search. Use the Potential Sources Tool to record and evaluate three more potential sources. On the back of the tool, explain how two of those sources meet the criteria for being *credible*, *accessible*, and *relevant* using the Assessing Sources Handout as a guide. Use this lesson's vocabulary wherever possible in your written response.

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ASSESSING SOURCES

ASSESSING A SOURCE TEXT'S CREDIBILITY

Look at the information you can find about the text in the areas below, and consider the following questions to assess a source text's credibility:

PUBLISHER	DATE	AUTHOR	TYPE
• What is the publisher's relationship to the topic area? • What economic stake might the publisher have in the topic area? • What political stake might the publisher have in the topic area?	• When was the text first published? • How current is the information on the topic? • How does the publishing date relate to the history of the topic?	• What are the author's qualifications/ credentials relative to the topic area? • What is the author's personal relationship to the topic area? • What economic/political stakes might the author have in the topic area?	• What type of text is it: explanation, informational article, feature, research study, op/ed, essay, argument, other? • What is the purpose of the text with respect to the topic area?

ASSESSING A SOURCE TEXT'S ACCESSIBILITY AND INTEREST LEVEL

Consider your initial experience in reading the text, how well you understand it, and whether it seems interesting to you:

ACCESSIBILITY TO YOU AS A READER	INTEREST AND MEANING FOR YOU AS A READER
• Am I able to read and comprehend the text easily? • How do the text's structure and formatting either help or hinder me in reading it? • Do I have adequate background knowledge to understand the terminology, information, and ideas in the text?	• Does the text present ideas or information that I find interesting? • Which of my Inquiry Paths will the text provide information for? • Which inquiry questions does the text help me answer? How?

ASSESSING A SOURCE TEXT'S RELEVANCE AND RICHNESS

Using your Research Frame as a reference, answer the following questions:

RELEVANCE TO TOPIC & PURPOSE	RELEVANCE TO AREA OF INVESTIGATION	SCOPE AND RICHNESS
• What information does the text provide on the topic? • How might the text help me accomplish the purpose for my research? • Does the text provide accurate information?	• How is the text related to the specific area I am investigating? • Which of my paths of inquiry might the text provide information for? • Which inquiry questions might the text help me address? How?	• How long is the text and what is the scope of the topic areas it addresses? • How extensive and supported is the information it provides? • How does the information in the text relate to other texts?

ODELL EDUCATION

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Name ..... Topic .....

Area of Investigation .....

SOURCE #	Title:	Location:	
	Author:	Text Type:	Publication Date:
General Content / Key Ideas / Personal Comments:			Connection to Inquiry Paths:
Credibility: [ ] High [ ] Medium [ ] Low	Relevance/Richness: [ ] High [ ] Medium [ ] Low	Accessibility/Interest: [ ] High [ ] Medium [ ] Low	

SOURCE #	Title:	Location:	
	Author:	Text Type:	Publication Date:
General Content / Key Ideas / Personal Comments:			Connection to Inquiry Paths:
Credibility: [ ] High [ ] Medium [ ] Low	Relevance/Richness: [ ] High [ ] Medium [ ] Low	Accessibility/Interest: [ ] High [ ] Medium [ ] Low	

SOURCE #	Title:	Location:	
	Author:	Text Type:	Publication Date:
General Content / Key Ideas / Personal Comments:			Connection to Inquiry Paths:
Credibility: [ ] High [ ] Medium [ ] Low	Relevance/Richness: [ ] High [ ] Medium [ ] Low	Accessibility/Interest: [ ] High [ ] Medium [ ] Low	

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POTENTIAL SOURCES

Name Model **Topic** Tissue Ownership

Area of Investigation Tissue Ownership

SOURCE #1	Title: A Court Allows Payment for Bone Marrow: Should People Be Able to Sell Their Parts?	Location: Time.com	
	Author: Alice Park	Text Type: Internet Article	Publication Date: 2012

General Content / Key Ideas / Personal Comments:
This article investigates the impact of a recent U.S. appeals court decision that allows individuals to legally sell their bone marrow. The article also points out how helpful this decision is for thousands of sick patients who need bone marrow transplants. Then it begs the question; "What other body parts might up for sale next?"

Connection to Inquiry Paths:

Credibility: [✓] High [ ] Medium [ ] Low | Relevance/Richness: [✓] High [ ] Medium [ ] Low | Accessibility/Interest: [✓] High [ ] Medium [ ] Low

SOURCE # 2	Title: Do We Own Our Own Bodily Tissues?	Location: Voice of San Diego	
	Author: Margaret Ng Thow Hing	Text Type: Internet article	Publication Date: 2014

General Content / Key Ideas / Personal Comments:
This article considers the similarity between a person's personal belongings and his/her bodily tissue. It argues that "if someone takes our material possessions, it is considered theft or grounds for a civil action....." but that "....when it comes to our tissues, our rights are less clear." It goes on to point out that our rights to privacy do not extend to excised body tissue.

Connection to Inquiry Paths:

Credibility: [✓] High [ ] Medium [ ] Low | Relevance/Richness: [✓] High [ ] Medium [ ] Low | Accessibility/Interest: [✓] High [ ] Medium [ ] Low

SOURCE # 3	Title: Paying Patients for Their Tissue: The Legacy of Henrietta Lacks	Location: Science	
	Author: Robert D. Truog, Aaron S. Kesselheim, and Steven Joffe	Text Type: Internet article	Publication Date: 2002

General Content / Key Ideas / Personal Comments:
This article begins with a brief description of the story of Henrietta Lacks and the immortal cell line that came from her. It points out that although the cell line became extremely lucrative, her family never received any compensation from it. The article then acknowledges that while this may appeal to people's sense of fairness, "it requires critical examination before becoming accepted as precedent regarding payments to patients."

Connection to Inquiry Paths:

Credibility: [✓] High [ ] Medium [ ] Low | Relevance/Richness: [✓] High [ ] Medium [ ] Low | Accessibility/Interest: [✓] High [ ] Medium [ ] Low

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POTENTIAL SOURCES

10.3.2 Lesson 4

Introduction

In this lesson, students continue to develop their research skills as they learn how to closely read important sources for selected inquiry questions using annotation and note taking.

Students begin the lesson by engaging in a research project check-in during which they review the Student Research Plan by journaling about their own research progress and next steps. Then, they participate in a discussion and modeling of how to use an inquiry question to annotate for information and how to record notes using the Taking Notes Tool. Independently, students continue to practice annotating and recording key information in the Taking Notes Tool.

Student learning in this lesson is assessed via a Quick Write prompt that asks students to select one annotation from a model source "A Court Allows Payment for Bone Marrow. Should People be Able to Sell Their Parts?" by Alice Park and the corresponding entry on the Taking Notes Tool, and discuss how the information in the source and tool addresses a specific inquiry question(s). For homework, students annotate a source and take notes on the Taking Notes Tool for two additional sources identified in the Potential Sources Tool from 10.3.2 Lesson 3. Students also continue to record vocabulary from these preliminary searches in the vocabulary journal.

Standards

Assessed Standard(s)	
W.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
Addressed Standard(s)	
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

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Assessment

Assessment(s)
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. • Choose one of your independent annotations from the model source and the corresponding entry on the Taking Notes Tool and discuss how the information in the source and tool address a specific inquiry question(s).
High Performance Response(s)
A High Performance Response should: • Cite an annotation (e.g., an underline beneath the sentence "A U.S. appeals court puts the price at about $3,000 in a ruling that now makes it legal to pay donors for their bone marrow tissue" and its corresponding Taking Notes Tool entry). • Identify a specific inquiry question (e.g., "Who should own tissue once it is surgically removed from the body?"). • Discuss the connection(s) between the annotation, the Taking Notes Tool entry, and the specific inquiry question (e.g., "By allowing individuals to be paid for their bone marrow tissue, this reference from the model source shows the establishment of a legal precedent for tissue ownership. If individuals can be compensated for their tissue, then logically, the court is saying that they own their tissue.").

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

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Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text: • Standards: W.9-10.8, W.9-10.7 • Model Source Text: "A Court Allows Payment for Bone Marrow. Should People be Able to Sell Their Parts?" by Alice Park	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability and Research Check-In	2. 15%
3. Annotating Sources and Taking Notes	3. 35%
4. Annotating Sources and Taking Notes Independently	4. 30%
5. Quick Write	5. 10%
6. Closing	6. 5%

Materials

- Student copies of the Potential Sources Tool (refer to 10.3.2 Lesson 3)
- Student copies of the Assessing Sources Handout (refer to 10.3.2 Lesson 3)
- Research Portfolios (refer to 10.3.2 Lesson 1)
- Student copies of the Student Research Plan (refer to 10.3.2 Lesson 2)
- Copies of the Taking Notes Tool 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.
	Italicized text indicates a vocabulary word.
▸	Indicates student action(s).
🗨	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

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Activity 1: Introduction of Lesson Agenda 5%

Begin by reviewing the agenda and the assessed standard for this lesson: W.9-10.8. Explain that students begin the lesson by engaging in a research project check-in, during which they review the Student Research Plan by journaling about their own research progress and next steps. Using a model source, discuss and model how to use an inquiry question to annotate for information, including how to record notes using the Taking Notes Tool. Independently, students annotate a model source and record key information by completing a Taking Notes Tool.

- Students look at the agenda.

Activity 2: Homework Accountability and Research Check-In 15%

Instruct students to take out their homework from 10.3.2 Lesson 3. Instruct students to discuss in pairs how two of the additional sources they found meet the criteria for being credible, accessible, and relevant.

- Student responses vary depending on their individual search experience but should clearly articulate why two sources are high quality based on their ratings on the Potential Sources Tool. Student responses should use the language of the Assessing Sources Handout.

Lead a brief share out of student pair discussion.

ⓘ Consider collecting the homework to monitor students' research progress.

Distribute the assessment and feedback from 10.3.2 Lesson 3. Instruct students to review teacher comments.

- Students examine the teacher's feedback.

Ask students to take out the Student Research Plan from their Research Portfolios.

ⓘ The Student Research Plan should be located in the front of each student's Research Portfolio.

Instruct students to review the Student Research Plan, Part 2, regarding the finding and assessing sources skills and examine the part of W.9-10.8 that corresponds to this process: "Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question." Instruct students to use the homework from 10.3.2 Lesson 3 and the language of W.9-10.8.

ⓘ Instruct students to continue the Research Journal started in 10.3.2 Lesson 3; students can write on separate sheets of paper or in a notebook and keep the Research Journal in the Research Portfolio.

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- Students review the Student Research Plan and language of W.9-10.8.

- Student responses vary by individual research topic/area of investigation but should use the language of the Student Research Plan, Part 2 (finding and assessing sources) and the language of W.9-10.8 when reflecting on their research progress and next steps.

Instruct students to file the Student Research Plan in the front section of the Research Portfolio and organize the tools from 10.3.2 Lesson 3 in Section 2: Gathering and Analyzing Information.

Ask students to keep their Potential Sources Tools from 10.3.2 Lesson 3 out for further reference.

- Students organize their resources.

Activity 3: Annotating Sources and Taking Notes 35%

Share with students that once relevant, credible, and accessible sources are identified, the next step in the research process is to read sources closely, with an eye toward selecting sources that further their research and help to answer the inquiry question guiding that specific search process.

- Students listen.

Inform students that reading closely for the purpose of gathering and analyzing information and evidence is done in two steps: annotating and taking notes. Both annotating and taking notes aid in further assessing the usefulness of each source.

- Students listen.

ⓘ Remind students that a librarian/media specialist can be used as a resource throughout this unit.

Explain that annotating involves different actions depending on the type of source. Inform students that the focus text type in this module is informational text for researching argumentation, which necessitates similar annotation to literature but with additional codes.

Instruct students that when annotating informational texts they should look for:

- Key words and concepts
- Information that answers inquiry questions
- Initial impressions of the information
- Areas for possible further exploration
- Connections to other sources

- Students listen.

Explain that the same annotations used in previous modules are used in this module. Review the annotation codes from the previous modules:

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- Put a question mark (?) next to a section you are questioning.
- Write in the margin or 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.
- Add an arrow (→) to make connections between points.
- Box words and phrases that you do not know or that you find confusing. Rewrite a word or phrase you might have figured out.
- Star (*) ideas that seem important, or may support your thesis writing later.
- Use the code CI to indicate a central idea.

  - Students listen.

ⓘ Remind students that in addition to using the codes, it is important that they mark the text with their thoughts as they relate to the codes.

Introduce two new annotation codes specifically for informational text:

- Underline areas that represent major points. If a passage is too long to underline, use vertical lines in the margin.
- Use numbers in the margin to indicate a sequence of points to trace the development of an argument.

  - Students listen.

ⓘ Consider displaying all annotation codes for students to see.

Display the model source: "A Court Allows Payment for Bone Marrow. Should People be Able to Sell Their Parts?" by Alice Park. Read an excerpt of the article aloud from "How much would it take for you to consider selling your bone marrow?" to "Should we allow people to buy and sell human body parts?" (pp. 1–2).

  - Students follow along, reading silently.

Ask students to annotate the first three paragraphs of this text excerpt from "How much would it take for you to consider selling your bone marrow" to "The U.S. Court of Appeals for the Ninth Circuit Agreed" (p. 1) for a specific inquiry question:

Who should own tissue once it is surgically removed from the body?

Model the annotation of the text by coding and writing thoughts directly on the text, pausing after each annotation and explaining the choice.

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- Box around *marrow* because it is a word that may be unfamiliar.
- Exclamation point and underline the sentence "A U.S. appeals court puts the price at about $3,000 in a ruling that now makes it legal to pay donors for their bone marrow tissue" because the concept of paying someone for their tissue is reminiscent of issues raised in *The Immortal Life of Henrietta Lacks* and because it represents a major point in the issue of tissue ownership.
- Exclamation point near the question "What other body parts might be up for sale?" because it brings to mind *The Immortal Life of Henrietta Lacks* and the fact that her family was never paid for her tissue despite the lucrative business it provided and connects to the question of ownership because whomever owns the tissue can possibly sell it.
- Underline the phrase "the federal law banning the buying and selling of bodily organs" to acknowledge that a law exists that prevents this, which raises the question of how this law applies to human tissue.

ⓘ **Differentiation Consideration:** Consider using another model source if this one does not fit individual student or class needs.

Instruct students to form small groups of three to four after they have individually read the displayed model text excerpt from "At the core of the plaintiffs' argument" (p. 1) to "payments for blood or other fluids, such as plasma or semen" (p. 1) and practice annotating the paragraph. Remind students to mark their thinking directly on the source, next to their coding, and to keep the inquiry question in mind as they annotate for information:

Who should own tissue once it is surgically removed from the body?

- Students read and annotate using the model inquiry question.

ⓘ **Differentiation Consideration:** Consider having students access the model source at http://healthland.time.com/2012/07/02/a-court-allows-payment-for-bone-marrow-should-people-be-able-to-sell-their-parts/.

ⓘ Due to the sensitive nature of the model text excerpt, it may be necessary to remind students of norms and expectations when reading these types of academic texts. Consider using a different model text to teach annotation and note taking.

Lead a brief share out of the annotation practice to confirm that students identified important details, recorded initial impressions, established connections, and identified other areas of research.

- Student responses may include:
  - Vertical line beside the segment that begins with "At the core of the plaintiffs' argument" and ends with "made marrow donation not much different than donating blood" (p. 1) which denotes a particularly important medical advancement that makes marrow donation very similar to blood donation, and which would place ownership in the hands of donors.

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- Star near the words "marrow cells should be considered a fluid like blood, rather than an organ" (p. 1) which further explains how medical advancements position bone marrow donation in a similar category with blood donation.

Explain that the next step in the research process is note taking. Using their annotations as guides, students organize and record information relevant to their research using the Taking Notes Tool.

- Students listen.

Distribute the Taking Notes Tool to each student. Encourage students to examine it and then ask:

What is important about the three-column organization of this tool?

- The three columns help to organize and make the information from the annotations easily accessible for later research.

ⓘ It may be helpful to explain that in the first column, "Ref" is short for "reference."

Explain to students that the richest or most relevant annotations have corresponding entries on the Taking Notes Tool. Instruct students to follow along and fill in their tool while the Taking Notes Tool is modeled.

- Students follow along and enter the richest or most relevant information on their copy of the Taking Notes Tool.

At the top of the tool, ask students to write the inquiry question: "Who should own tissue once it is surgically removed from the body?" Instruct students to record the source number just as it appears on their Potential Sources Tool under the column marked "Ref." In addition to the Potential Sources Tool source number, explain that the reference column needs to include precise information about where the annotation is located in the actual text. Model this for students by writing "Source #1 and Paragraph #1" (paragraph may be abbreviated "para.") in the reference column. Remind students that when writing research papers, they have to cite sources. Having precise information about an annotation, including the page where it was found, makes the citation work in 10.3.3 much easier.

- Students follow along, recording the model information on their Taking Notes Tool.

Explain the next two columns of the tool by modeling how to record notes on the Taking Notes Tool. The Details column is used to record direct information from the text. For example, share with students that one rich and interesting detail stemming from the inquiry question "Who should own tissue once it is surgically removed from the body?" came from the section that described the U.S. appeals court decision that resulted in individuals being able to sell their bone marrow for about $3,000. Model for students by writing this textual detail in the Details column.

- Students follow along, recording the model information on their Taking Notes Tool.

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Explain that the Comments section is for personal reactions and insights, as well as analysis about how a given source relates to the inquiry question or the overarching research topic/area of investigation. Based on the information already entered in the Detail column of the Model Taking Notes Tool, share with students comments such as "This is an important detail because it shows that if people can now be paid for donating bone marrow, it is logical to think they could also be paid for donating other body tissue."

- Students follow along, recording the model information on their Taking Notes Tool.

ⓘ Consider providing students with the following definition: *analysis* (form of the word *analyze*) means "to examine carefully and critically in detail so as to bring out the essential elements or give the essence of."

- Students write the definition of analysis in a vocabulary journal.

Using their annotated model text, instruct each student group to complete another row on their Taking Notes Tool, addressing each of the three columns. When finished, direct student groups to discuss their entries.

- See Model Taking Notes Tool for sample student responses.

ⓘ Explain to students that not every annotation needs to be recorded on the Taking Notes Tool. This two-step process of annotation and note taking provides students with an opportunity to choose the research information that is the most relevant or useful to the selected inquiry question. Some of the annotation, once it is read again, might not be as relevant or useful to the inquiry question as previously thought. Students should be encouraged to choose the most relevant and useful annotations to record on the Taking Notes Tool.

ⓘ A copy of a completed model Taking Notes Tool is available at the end of the lesson.

ⓘ Consider reminding students of the definition of *relevant*: "relating to a subject in an appropriate way." Remind students of their work with this word in 10.3.1 Lesson 6.

Activity 4: Annotating Sources and Taking Notes Independently 30%

Instruct students to independently continue reading the displayed model excerpt from "U.S. Attorney General Eric Holder decided not to ask" (p. 1) to "Should we allow people to buy and sell human body parts?" (p. 2) annotating and taking notes as they read closely. Reading and analysis of the source should be driven by the inquiry question: "Who should own tissue once it is surgically removed from the body?"

- Students individually annotate the model text.

- Student responses may include:

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- Underlining the sentence that begins "In a concession to the spirit of NOTA, however, the compensation can't," because this modifies the original court decision and says payment cannot be in cash; instead, it has to come "in the form of a voucher."
- Underlining "the decision applies only to the nine states covered by the Ninth Circuit and only to bone marrow obtained through apheresis" noting that the court's ruling does not apply to the majority of the country.
- Numbering the sequence of an argument against the buying and selling of human tissue as follows: Number 1 by "Once we start paying for the parts we need, though, how far do we go?"; number 2 by "We don't allow people to buy and sell human beings, that's slavery"; and number 3 by "Should we allow people to buy and sell human body parts?"

▸ When finished, students transfer their most relevant and useful annotations to their Taking Notes Tool.

Student responses vary. See Model Taking Notes Tool for student response formatting and examples.

ⓘ Circulate to ensure students are annotating and selecting relevant and useful annotations to record on the tool.

ⓘ Remind students to keep all annotated sources and the Taking Notes Tools in section 2 of the Research Portfolio.

ⓘ Remind students that annotating sources and taking notes is also part of the research aspect of W.9-10.7.

Activity 5: Quick Write 10%

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

Choose one of your independent annotations from the model source and the corresponding entry on the Taking Notes Tool and discuss how the information in the source and tool address a specific inquiry question(s).

▸ Students listen and read the Quick Write prompt.

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

Transition to the independent Quick Write.

▸ Students independently answer the prompt, using evidence from the annotated source and Taking Notes Tool.

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

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Activity 6: Closing 5%

Display and distribute the homework assignment. Distribute additional copies of the Taking Notes Tool to each student. For homework, instruct students to annotate and take notes on a Taking Notes Tool for two more sources from the Potential Sources Tool in 10.3.2 Lesson 3. Additionally, students continue to record vocabulary from these preliminary searches in their Vocabulary Journals.

- Students follow along.

ⓘ Advise students to obtain hard copies of at least two of their potential sources found in the homework from 10.3.2 Lesson 3.

ⓘ **Differentiation Consideration:** Some of the topics students are researching may yield complex or inaccessible texts. To address this concern, consider recommending that students make use of free databases accessible through http://novelnewyork.org/ such as Grolier, Gale, and ProQuest; these databases allow searches by subject/keyword and students may filter the searches so that only texts within certain Lexile ranges are returned. Consider collaborating with a librarian or media specialist to access these databases and create filtered searches that support students' reading levels.

Homework

Annotate and take notes on your Taking Notes Tools for two sources identified in the Potential Sources Tool from 10.3.2 Lesson 3. Continue to record vocabulary from these preliminary searches in your vocabulary journal.

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Name.....

Inquiry Question/Path .....

REF.	DETAILS	COMMENTS
Source # and location in the source:	I record details, ideas, or information that I find in my sources that help me answer my inquiry questions:	I explain the reason why I think they are important, and write personal comments:

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TAKING NOTES

Name Model

Inquiry Question/Path Who should own tissue once it is surgically removed from the body?

REF.	DETAILS	COMMENTS
Source # and location in the source:	I record details, ideas, or information that I find in my sources that help me answer my inquiry questions:	I explain the reason why I think they are important, and write personal comments:
Source 1, p. 1, par.1	A U.S. appeals court made it legal for people to sell their bone marrow, placing the marrow's value at approximately $3,000.	If people can now be compensated for donating their bone marrow, it seems logical to think that they could also be paid for donating other body tissues.
Source 1, p. 1, par. 3	If people are paid to donate their bone marrow there will be a more reliable supply for individuals waiting for transplants.	It seems that both patients and donors will benefit greatly from this new court decision.
Source 1, p. 1, par. 4	Since 1984 the National Organ Transplantation Act (NOTA) has forbidden the buying and selling of human organs, including bone marrow, but new methods for extracting bone marrow have made it similar to donating blood.	As science advances medical techniques, our ideas of how to perceive bodily tissue have evolved.
Source 1, p. 1, par. 4	A new medical procedure to remove bone marrow is described and compared to blood and plasma donation. The article then states, "NOTA doesn't prohibit payment for blood or other fluids, such as plasma or semen."	This is an important detail because it shows there is already legal precedent for individuals owning their body fluid and being paid for it. If body tissue is made up of cells and body fluids are as well, why should people not own their excised tissues as they do their fluids?

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10.3.2 Lesson 5

Introduction

In this lesson, students learn how to evaluate an evidence-based argument. Students work to develop their ability to identify the necessary components of a compelling argument, systematically evaluate arguments, and assess the effectiveness of these arguments. This work prepares students to begin forming their own evidence-based arguments in 10.3.3.

Students begin the lesson by observing a teacher-led evaluation of a model argument using the Evidence-Based Arguments Checklist. Students then examine a number of evidence-based arguments in groups while examining the logic and quality of each argument using the Evidence-Based Arguments Checklist. Students are assessed via a completed Evidence-Based Arguments Checklist with student notes. For homework, students continue to develop their examination of argument by applying the Evidence-Based Arguments Checklist to two additional sources.

Standards

Assessed Standard(s)	
RI.9-10.8	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.
W.9-10.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
Addressed Standard(s)	
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
SL.9-10.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 9-10 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively.

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Assessment

Assessment(s)
Student learning is assessed via completion of the Evidence-Based Arguments Checklist, which students submit along with their evaluation notes at the end of the lesson. ⓘ The Evidence-Based Arguments Checklist serves as the assessment for this lesson.
High Performance Response(s)
A High Performance Response should: • See the Model Evidence-Based Arguments Checklist.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text: • Standards: RI.9-10.8, W.9-10.9, W.9-10.7, SL.9-10.1 • Model Source Texts: "A Court Allows Payment for Bone Marrow. Should People be Able to Sell Their Parts?" by Alice Park, "Do We Own Our Bodily Tissues?" by Margaret Ng Thow Hing (http://www.voiceofsandiego.org/), "Tissue Banks Trigger Worry About Ownership Issues" by Charlie Schmidt (http://www.oxfordjournals.org/), "Body of Research - Ownership and Use of Human Tissue" by R. Alta Charo (http://www.nejm.org/), "My Body, My Property" by Lori B. Andrews (http://chicagotribune.com/) **Learning Sequence:** 1. Introduction of Lesson Agenda	1. 5%

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2. Homework Accountability	2. 10%
3. Understanding Compelling Arguments	3. 20%
4. Introducing the Evidence-Based Arguments Checklist	4. 30%
5. Finding Compelling Arguments and Assessment	5. 30%
6. Closing	6. 5%

Materials

- Copies of the Evidence-Based Arguments Checklist for each student
- Research Portfolios (refer to 10.3.2 Lesson 1)
- Chart paper

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.
	Italicized text indicates a vocabulary word.
▸	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 standards for this lesson: RI.9-10.8 and W.9-10.9. Explain to students that in this lesson they are going to focus on developing an understanding of evidence-based arguments by first examining a model argument as a class, then by working in groups to complete an Evidence-Based Arguments Checklist. Students work collaboratively in groups to identify the components of a compelling argument. Students complete their Evidence-Based Arguments Checklist as the culmination of the group work in this lesson. This completed Evidence-Based Arguments Checklist serves as the assessment for this lesson.

- ▸ Students look at the agenda.

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Activity 2: Homework Accountability 10%

Instruct students to take out the homework from the previous lesson: "Annotate and take notes on your Taking Notes Tools for two sources identified in the Potential Sources Tool from 10.3.2 Lesson 3. Continue to record vocabulary from these preliminary searches in your Vocabulary Journal."

- Students take out their homework.

Instruct students to form pairs with a classmate for a Turn-and-Talk about the annotation and note taking processes. Specifically, instruct pairs to discuss two details from the close reading of at least one source by discussing how the details address a selected inquiry question.

- Students Turn-and-Talk about the details in one source and how they address a selected inquiry question.

ⓘ Circulate during the Turn-and-Talk to monitor students' discussions and consider collecting homework to monitor students' research progress.

Lead a brief share out of students' discussions.

- Student responses vary by individual research question/problem but may resemble:
  - In Source number 1, the author says, "But if the bone-marrow case starts changing that – and experts say it could – it might jump-start a dangerous trend in which lower-income groups were disproportionately targeted or incentivized to give up their marrow and people with rarer blood types demanded more money for their valuable cells" (par. 7). This connection helps to expand my research topic because it shows the issues or concerns with people selling their tissue, which relates to tissue ownership.
  - In Source number 1, the author documents many cases about patient rights and the different uses and varieties of tissue for sale but he does not cite any additional court cases beyond the Flynn case. I need to find other sources that better inform my research topic with diverse evidence.

Activity 3: Understanding Compelling Arguments 20%

Lead a discussion to develop the idea of *compelling* arguments for students. Explain to students that a thorough evaluation of an argument has two components: the examination of the objective strengths and weaknesses of the argument and the consideration of one's own developing perspective on an issue. Remind students that an argument is a composition of precise claims about a topic, including relevant and sufficient evidence, and valid reasoning.

Provide students with the following definitions: *compelling* means "having a powerful and irresistible effect, requiring acute admiration, attention, or respect," and *evaluate* means "to determine the worth or quality of a thing," in this instance, the strength and effectiveness of the arguments presented.

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- Students write the definitions of *compelling* and *evaluate* in a vocabulary journal.

Use the following questions to review the work completed in 10.3.1 on argument, central claims, and perspective.

What is perspective?

- How one understands an issue, including his/her relationship to and analysis of the issue.

What is a central claim?

- An author or speaker's main point about an issue in an argument.

ⓘ The central claim of an argument also may be called a thesis or a position (the author or speaker's stance). The central claim also may imply the author or speaker's point of view or purpose (RI.9-10.6).

How is an argument related to a central claim?

- Student responses should include:
  - A central claim is an author's main point or statement about an issue.
  - An argument is the text as a whole and it is a composition of a series of precise claims supported by relevant and sufficient evidence and valid reasoning.
  - A person might use several supporting claims to defend his/her central claim.

What is valid reasoning?

- Valid reasoning is sound or logical relationships among ideas, including relationships among claims and relationships across evidence.

ⓘ **Differentiation Consideration:** If students struggle, consider providing definitions of each of the terms and leading discussion on the differences apparent in the terms.

Explain to students that some of the sources they have identified in preliminary searches contain one or more central claims and that the thorough evaluation of these central claims is important in determining the merit of the source and whether or not it can contribute to an understanding of the research topic/area of investigation. Guide students through the following questions to strengthen their understanding of arguments and how to evaluate them.

What makes an argument effective?

- Student responses should include:
  - Clearly stated claims.
  - Significant evidence that is relevant and sufficient to the argument's claims.
  - A strong line of reasoning.

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What might make an argument ineffective?

- Student responses should include:
  - It uses a confusing structure.
  - The evidence is unrelated and does not support the argument.
  - The argument ignores other perspectives.
  - The argument does not include effective reasoning, so relationships are missing among the evidence, supporting claims, and central claim.

ⓘ **Differentiation Consideration:** If students struggle with the above questions, consider discussing with them a specific argument in *The Immortal Life of Henrietta Lacks* and what made it effective or ineffective. Specifically re-examine the excerpts "Illegal, Immoral, and Deplorable" and "Who Told You You Could Sell My Spleen?".

Activity 4: Introducing the Evidence-Based Arguments Checklist 30%

Introduce students to the Evidence-Based Arguments Checklist. Explain to students that they are going to use it to evaluate central claims, supporting claims, reasoning, and evidence in sources, so that they can gain a better understanding of compelling arguments.

- Students listen.

Lead students through an examination of the Evidence-Based Arguments Checklist, focusing on the various criteria present on the checklist.

- Students follow along.

Explain to students that the Evidence-Based Arguments Checklist is composed of four major sections that serve to evaluate an argument.

- Content and Analysis
- Command of Evidence
- Coherence and Organization
- Control of Language and Conventions

Explain to students that these four sections are the support structure of the argument. As a strong central claim is supported by strong supporting claims, a strong argument is supported by a strong content and analysis, command of evidence, coherence and organization, and control of language and conventions.

- Students listen.

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Using the criteria of the Evidence-Based Arguments Checklist, examine the model argument and complete the checklist by modeling for students.

Display the model source, "A Court Allows Payment for Bone Marrow. Should People be Able to Sell Their Parts?" from 10.3.2 Lesson 4 for students. Inform students that they are to use the Evidence-Based Arguments Checklist to evaluate the argument in this model source.

- Students listen.

ⓘ The model source "A Court Allows Payment for Bone Marrow. Should People be Able to Sell Their Parts?" by Alice Park can be accessed online at http://healthland.time.com/2012/07/02/a-court-allows-payment-for-bone-marrow-should-people-be-able-to-sell-their-parts/.

Explain to students that each section of the Evidence-Based Arguments Checklist consists of several smaller areas where students can indicate with a check mark if they find this item is present in the argument. Next to this is a section where students should provide additional notes on where they found this information in the text and how the author fulfills this section of the checklist.

- Students follow along on their Evidence-Based Arguments Checklist.

Explain to students that the purpose of completing the Evidence-Based Arguments Checklist is not to evaluate whether an argument passes or fails an examination by checking off boxes; instead it should be used to identify the sections in which the argument succeeds in providing a strong example of an evidence-based argument. By learning to identify effective components of an argument, students are able to strengthen their own work by searching for strong arguments in this unit and writing strong arguments in 10.3.3.

- Students listen.

Instruct students to examine the first section of the Evidence-Based Arguments Checklist: Content and Analysis. Explain to students that this section is further broken down into four subsections: Clarity and Relevance, Conformity to Sources, Understanding of the Issue, and Acknowledgement of Other Perspectives. The goal of these four subsections is to identify the strength of the author's content by examining their use of varied sources and clear claims, and identifying if they possess a deep and thorough understanding of the issue supported by broad research. Instruct students to follow along on their Evidence-Based Checklist.

- Students follow along.

- Clarity and Relevance

Examine this section with students. Explain that each subsection has a sentence that explains what an ideal example of this technique would look like. For example, a well-executed example of Clarity and Relevance "purposefully states a central claim that is linked to a clearly identified context (topic, problem, issue) that establishes its relevance." Instruct students that they can use this as a guideline and reference for examining a text.

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Explain to students that in the model text examined, the author does not put forward a strong central claim, as the article is not an argument. The absence of this purposefully stated central claim means that the check box should be left blank on the Evidence-Based Arguments Checklist.

Examine the comments sections with students. Inform students that this section is where they need to explain their reasoning for their observations and provide evidence when necessary. As some arguments might have subtle examples of each of these sections, it is essential that each student justify their choices in this section. The comment box provides students the opportunity to defend their decisions.

Model the comments section for students by filling in the comments box with a short statement that provides reasoning and examples that support the decision about whether or not this component is present in the text.

ⓘ Consider using the example above or the example from the model tool to show how to complete the Comments section of the tool.

- Students follow along.

- Conformity to Sources

Examine this section with students. Inform students that a well-executed example of Conformity to Sources "presents a perspective that arises from ideas and evidence found in a range of diverse, credible and significant sources." This section has two important meanings: the writer must present a perspective in the text, and must also provide a range of ideas and evidence that are different from one another, significant in their content, and credible. Instruct students that they can use this as a guideline and reference for examining a text.

ⓘ Remind students of the word *credible* from 10.3.2 Lesson 3 ("worthy of belief or confidence; trustworthy").

Inform students that Park presents a number of different sources that inform the perspective of the text. She includes several experts in different fields to represent different opinions on the subject. She also uses the statement of the court ruling to provide additional context. Because of the varied and deep selection of sources and the methods by which Park presents them, this component should be considered present in the text and indicated as such with a check mark.

Model the comments section for students by filling in the comments box with a short statement that provides reasoning and examples that support the decision about whether or not this component is present in the text.

ⓘ Consider using the example above or the example from the model tool to show how to complete the Comments section of the tool.

- Students follow along.

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- Understanding of the Issue

Examine this section with students. Inform students that a well-executed example of Understanding of the Issue "presents a perspective based on a comprehensive understanding of the issue, and establishes a series of valid claims that emerge from reasoned analysis." Instruct students that they can use this as a guideline and reference for examining a text.

Inform students that in the model text examined, Park provides a large amount of information about organ and tissue donation. Although, as discussed earlier, she does not put forward a central claim, her questions and examples follow a clear, reasoned analysis as Park explores the implications of these changes in tissue donation. As the text fulfills the criteria of this component, it should be considered present in the text and indicated as such with a check mark.

Model the comments section for students by filling in the comments box with a short statement that provides reasoning and examples that support the decision about whether or not this component is present in the text.

ⓘ Consider using the example above or the example from the model tool to show how to complete the Comments section of the tool.

- Students follow along.

- Acknowledgement of Other Perspectives

Examine this section with students. Explain that a well-executed example of Acknowledgement of Other Perspectives effectively "recognizes opposing or alternate claims and distinguishes these claims from the stated perspective." This means that the author achieves two important goals: they provide other claims in the argument and they effectively distinguish these claims from each other and from the central claim of the argument.

Explain to students that in the model text examined, the author successfully includes a variety of perspectives to deepen the reader's understanding of the issue. Park also separates each perspective from both her writing and other presented perspectives by breaking up stated perspectives with paragraphs that provide valuable background information. As the text fulfills the criteria of this component, it should be considered present in the text and indicated as such with a check mark.

Model the comments section for students by filling in the comments box with a short statement that provides reasoning and examples that support the decision about whether or not this component is present in the text.

ⓘ Consider using the example above or the example from the model tool to show how to complete the Comments section of the tool.

- Students follow along.

Using this format, continue modeling the Evidence-Based Arguments Checklist using the Model Evidence-Based Arguments Checklist at the end of this lesson.

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- Students follow along.

ⓘ **Differentiation Consideration:** Consider using the end of this section as an opportunity to field questions about the Evidence-Based Arguments Checklist and check in with students to gauge understanding of the tool in preparation for the following activity.

Activity 5: Finding Compelling Arguments and Assessment 30%

Explain to students that they are now going to participate in an activity using the Evidence-Based Arguments Checklist. Students work in groups to evaluate at least two posted arguments by completing an Evidence-Based Arguments Checklist.

Post three to four model arguments around the classroom for students to examine.

ⓘ Consider using the following model arguments or finding additional arguments that are better suited to students' needs.

- "Do We Own Our Bodily Tissues?" by Margaret Ng Thow Hing (http://www.voiceofsandiego.org/)
- "Tissue Banks Trigger Worry About Ownership Issues" by Charlie Schmidt (http://www.oxfordjournals.org/)
- "Body of Research - Ownership and Use of Human Tissue" by R. Alta Charo (http://www.nejm.org/)
- "My Body, My Property" by Lori B. Andrews (http://chicagotribune.com/)

Inform students that the following activity develops their understanding of how to evaluate arguments by asking them to work in groups to examine the posted arguments. Students examine the posted arguments and use the Evidence-Based Arguments Checklist to evaluate these arguments. In addition, students should provide textual evidence for their judgment by including where they found evidence of the arguments' strengths/weaknesses in the comments section of the Evidence-Based Arguments Checklist.

- Students listen.

ⓘ Consider posting arguments that contain varying levels of sophistication with regard to the Evidence-Based Arguments Checklist (i.e., arguments that fail to provide a command of evidence or sufficient analysis.)

Designate four to five students per group for this activity. Assign each group a posted argument and then instruct each group to move clockwise after the first half of this activity to examine the next model argument. Each group evaluates two posted arguments. Using the Evidence-Based Arguments Checklist, each student group should discuss the different arguments and collaborate to discover the strengths and weaknesses of each argument.

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- Student groups complete the Evidence-Based Arguments Checklist by circulating and evaluating at least two posted arguments.

ⓘ Consider circulating during this activity to offer support and provide answers to any clarifying questions.

ⓘ Remind students that evaluating arguments is also part of the research aspect of W.9-10.7.

ⓘ Consider reminding students of their previous work with standard SL.9-10.1, which requires that students participate in collaborative discussions, building on each other's ideas and expressing their own clearly and persuasively.

Inform students that they should complete an Evidence-Based Arguments Checklist for each of their two assigned arguments and turn them in at the end of the lesson.

ⓘ **Differentiation Consideration:** Depending on the skill level of the students, consider adjusting the number of argument evaluations required for this lesson assessment or assigning specific model arguments to specific groups.

Activity 6: Closing 5%

Display and distribute the homework assignment. For homework, instruct students to find two potential sources and evaluate the arguments in the sources by using the Evidence-Based Arguments Checklist. Ask students to include detailed comments and textual evidence to support their choices in the comments section of the Evidence-Based Arguments Checklist for each potential source.

- Students follow along.

ⓘ **Differentiation Consideration:** Some of the topics students are researching may yield complex or inaccessible texts. To address this concern, consider recommending that students make use of free databases accessible through http://novelnewyork.org/ such as Grolier, Gale, and ProQuest; these databases allow searches by subject/keyword and students may filter the searches so that only texts within certain Lexile ranges are returned. Consider collaborating with a librarian or media specialist to access these databases and create filtered searches that support students' reading levels.

Homework

Find two potential sources and evaluate the arguments in the sources by using the Evidence-Based Arguments Checklist. Include detailed comments and textual evidence to support your choices in the comments section of the Evidence-Based Arguments Checklist for each potential source.

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Evidence-Based Arguments Checklist

Name:		Class:		Date:	

Argument Sections	Section Components	☐	Comments
Content and Analysis	**Clarity and Relevance:** Purposefully states a central claim that is linked to a clearly identified context (topic, problem, issue) that establishes its relevance.	☐	
	Conformity to Sources: Presents a perspective that arises from ideas and evidence found in a range of diverse, credible, and significant sources.	☐	
	Understanding of the Issue: Presents a perspective based on a comprehensive understanding of the issue, and establishes a series of valid claims that emerge from reasoned analysis.	☐	
	Acknowledgement of Other Perspectives: Recognizes opposing or alternate claims and distinguishes these claims from the stated perspective.	☐	

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Command of Evidence	**Reasoning:** Links evidence and claims together logically in ways that lead to the conclusions expressed in the central claim.	☐	
	Use of Evidence: Supports the central claim and each supporting claim with valid inferences based on credible evidence.	☐	
	Thoroughness and Objectivity: Represents a comprehensive understanding of the issue where the argument's claims and supporting evidence fairly addresses relevant counterclaims and discusses conflicting evidence.	☐	
Coherence and Organization	**Relationship Among Parts:** Establishes clear and logical relationships between supporting claims and a central claim.	☐	
	Effectiveness of Structure: Adopts an organizational strategy, including an introduction and conclusion, which clearly and compellingly communicates the argument.	☐	

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Control of Language and Conventions	**Clarity of Communication:** Is communicated clearly and coherently. The writer's opinions are clearly distinguished from objective summaries and statements.	☐	
	Word Choice/Vocabulary: Uses topic-specific terminology appropriately and precisely.	☐	
	Style/Voice: Maintains a formal and objective tone appropriate to the intended audience. The use of words, phrases, clauses, and varied syntax draws attention to key ideas and reinforces relationships among ideas.	☐	
	Responsible Use of Evidence: Cites evidence in a responsible manner that anticipates the audience's knowledge level, concerns, values, and possible biases. Quotes sufficient evidence exactly, or paraphrases accurately, referencing precisely where the evidence can be found.	☐	

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	Conventions of Writing: Illustrates consistent command of standard, grade-level-appropriate writing conventions.	☐	

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Model Evidence-Based Arguments Checklist

Name:		Class:		Date:	

Argument Sections	Section Components	☐	Comments
Content and Analysis	**Clarity and Relevance:** Purposefully states a central claim that is linked to a clearly identified context (topic, problem, issue) that establishes its relevance.	☐	Although Park has a central claim (changing technology requires careful examination of tissue and organ sales in order to protect patients and society) it is not explicitly stated in this article. Park's goal is to provide a board-informative piece and raise questions about the subject, not to make an evidence-based claim.
	Conformity to Sources: Presents a perspective that arises from ideas and evidence found in a range of diverse, credible and significant sources.	☑	Park presents a large number of sources and ideas in this piece. In fact, the whole article is a collection of connected ideas and expert opinions. Park chooses experts in the medical field to offer opinions about the issues she is discussing.
	Understanding of the Issue: Presents a perspective based on a comprehensive understanding of the issue, and establishes a series of valid claims that emerge from reasoned analysis.	☑	The article brings together a broad understanding of the issues related to the sale of tissue. It starts by discussing the landmark court decision regarding the donating of bone marrow, then examines the changes that this evolving landscape of technology might bring about.
	Acknowledgement of Other Perspectives: Recognizes opposing or alternate claims and distinguishes these claims from the stated perspective.	☑	Park acknowledges several perspectives in this article while giving a broad overview of the issue. The opposing viewpoints of Dr. Robert Klitzman's comments about the buying and selling of humans and Jeffery Kahn's statement, "that the technology could potentially be groundbreaking" show Parks use of different claims. In addition, Park distinguishes these claims by interjecting informative and speculative paragraphs between them.

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Command of Evidence	**Reasoning:** Links evidence and claims together logically in ways that lead to the conclusions expressed in the central claim.	☑	Park clearly uses a chain of reasoning to link the earlier ideas about tissue donation through to the idea of patients' rights and the value of human life. Park also provides an important speculative route by building the idea of future concerns throughout the piece. This helps connect the idea of new technologies and organ donation with the speculative question that Park asks at the beginning of the text, "What other body parts might next be up for sale?"
	Use of Evidence: Supports the central claim and each supporting claim with valid inferences based on credible evidence.	☐	This article is more of an opinion piece than an argument, so Park does not use much hard evidence to support her claims. Instead the article serves more as a survey of the available information while presenting different opinions and questions for the reader to ponder.
	Thoroughness and Objectivity: Represents a comprehensive understanding of the issue where the argument's claims and supporting evidence fairly addresses relevant counterclaims and discusses conflicting evidence.	☑	The article represents a thorough examination of the issue. Park brings many different angles and viewpoints into play while raising a number of pertinent questions about tissue sale. This is achieved while maintaining a high level of journalistic impartiality.
Coherence and Organization	**Relationship Among Parts:** Establishes clear and logical relationships between supporting claims and a central claim.	☐	As the article does not have any particularly strong claims, the relationship between these claims is not well established.
	Effectiveness of Structure: Adopts an organizational strategy, including an introduction and conclusion, which clearly and compellingly communicates the argument.	☑	The information of the piece is very well communicated and Park succeeds in presenting a compelling unfolding of information that draws the reader into the text.

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Control of Language and Conventions	**Clarity of Communication:** Is communicated clearly and coherently. The writer's opinions are clearly distinguished from objective summaries and statements.	☑	As the source is mainly journalistic, Park does not spend much time on her opinions. The separation that does exist between the objective summaries and Park's input is clear however.
	Word Choice/Vocabulary: Uses topic-specific terminology appropriately and precisely.	☑	The vocabulary is well chosen and not overwhelming. The technical term at the heart of the article, peripheral apheresis, is clearly and quickly defined for the reader.
	Style/Voice: Maintains a formal and objective tone appropriate to the intended audience. The use of words, phrases, clauses, and varied syntax draws attention to key ideas and reinforces relationships among ideas.	☑	The source is written in an informal journalistic style and keeps that tone throughout. This keeps the writing of the article brisk and on point.
	Responsible Use of Evidence: Cites evidence in a responsible manner that anticipates the audience's knowledge level, concerns, values, and possible biases. Quotes sufficient evidence exactly, or paraphrases accurately, referencing precisely where the evidence can be found.	☐	The evidence that Park provides is mainly in the form of quotes and stated information. Park, however, does not provide clear paths for the facts that she does present.

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	Conventions of Writing: Illustrates consistent command of standard, grade-level-appropriate writing conventions.	☑	The writing in the article is consistent.

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10.3.2 Lesson 6

Introduction

In this lesson, students construct a frame using the Research Frame Tool to guide their research by establishing inquiry paths that allow them to explore various aspects of their research topics/areas of investigation. Students group their inquiry questions thematically and then formally plan their research using the Research Frame Tool.

Students begin the lesson by refining inquiry questions from Lesson 2, based on search results from Lessons 3–5. The teacher introduces the concept of inquiry paths by modeling how to group inquiry questions thematically. The teacher then shows students how to complete a Research Frame Tool as a way to plan research using grouped inquiry questions. For the lesson assessment, students organize, categorize, and refine their inquiry questions by inquiry paths and independently develop a detailed, organized Research Frame. Additionally, students craft a problem-based question based on the research topic/area of investigation and inquiry paths to guide the rest of their research. For homework, students will select one to two of their strongest inquiry questions to begin pursuing through independent research, following the research steps outlined in Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate arguments) using the appropriate tools for each of the search activities. Additionally, students continue to add new vocabulary they have learned through the research process to the vocabulary journal.

Standards

Assessed Standard(s)	
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
Addressed Standard(s)	
W.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism, and following a standard format for citation.

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L.9-10.4.a, c, d	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies. 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. c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

Assessment

Assessment(s)
Student learning in this lesson is assessed via a completed Research Frame Tool, submitted during the lesson's closing. ⓘ The Research Frame Tool serves as the assessment for this lesson.
High Performance Response(s)
A High Performance Response should: • Provide high-level inquiry paths • Provide a range of inquiry paths, encompassing content and coverage of the problem-based question • Provide inquiry paths that are distinct from one another • Provide inquiry paths that are equally important • Provide questions within the inquiry paths that address appropriate scope and utility ⓘ See the Model Research Frame Tool located at the end of the lesson for sample student responses.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

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Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards: • Standards: W.9-10.7, W.9-10.8, L.9-10.4.a, c, d	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability	2. 10%
3. Inquiry Paths and the Research Frame	3. 35%
4. Research Frame Tool and Assessment	4. 40%
5. Closing	5. 10%

Materials

- Copies of the Research Frame Tool for each student
- Student Research Portfolios (refer to 10.3.2 Lesson 1)
- Student copies of the Potential Sources Tool (refer to 10.3.2 Lesson 3)
- Student copies of the Taking Notes Tool (refer to 10.3.2 Lesson 4)

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.
	Italicized text indicates a vocabulary word.
▸	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 the assessed standard for this lesson: W.9-10.7. Explain that students begin the lesson by refining inquiry questions from Lesson 2, based on search results from

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Lessons 3–5. Students learn how to complete a Research Frame Tool as a way to plan/frame research using grouped inquiry questions. Students then organize, categorize, and refine their inquiry questions by inquiry path and independently develop a detailed, organized Research Frame.

- Students look at the agenda.

Activity 2: Homework Accountability 10%

Instruct students to take out the homework from the previous lesson: Find two potential sources and evaluate the arguments in the sources by using the Evidence-Based Arguments Checklist. Include detailed comments and textual evidence to support your choices in the comments section of the Evidence-Based Arguments Checklist for each potential source.

- Students take out their homework.

Instruct students to form pairs with a classmate for a Turn-and-Talk about the Evidence-Based Argument investigation. Instruct students to discuss how the checklist deepened their understanding of the argument within one of their sources, focusing on one specific section of the checklist.

- Students do a Turn-and-Talk about one specific section of the Evidence-Based Arguments Checklist and how it deepened their understanding of one of their source's arguments.

- Student responses will vary depending on their research sources.

ⓘ Consider circulating during the Turn-and-Talk to monitor students' discussions.

ⓘ Consider collecting the homework to monitor students' research progress.

Activity 3: Inquiry Paths and the Research Frame 35%

Introduce students to the Research Frame. Explain that, based on what they learned about conducting independent searches (planning for searches, assessing sources, annotating sources/recording notes, and evaluating arguments), students will now construct a Research Frame to guide the independent searches they will do in the next three lessons (10.3.2 Lessons 7–9). The Research Frame is a formal plan or guide used to list potential inquiry paths and corresponding inquiry questions. Explain that before they can build the Research Frame, students need to refine the inquiry questions developed in Lesson 2 based on the research they have done thus far.

- Students listen.

Instruct students to take out their specific inquiry questions from Lesson 2.

ⓘ The inquiry questions are located in Section 1 of the Research Portfolio.

Ask students to reflect on the preliminary searches conducted in Lessons 3–5 by considering the following guiding questions:

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How do the preliminary search results affect your current inquiry questions?

What new inquiry questions are emerging as a result of the preliminary searches? What inquiry questions might need to be eliminated already?

How can the inquiry questions be refined to reflect the search results?

- Students listen.

Instruct students to apply the guiding questions just discussed and refine the specific inquiry questions from Lesson 2.

- Students work independently to refine their inquiry questions from Lesson 2.
- Student responses will vary by individual research topic/area of investigation.

ⓘ **Differentiation Consideration:** Consider referring students back to the vetting process for inquiry questions taught in Lesson 2 if students need more support.

Explain to students that the next step is to categorize the refined inquiry questions into inquiry paths. Explain that an inquiry path is an overarching problem or question that organizes your research questions.

- Students listen.

Explain that inquiry questions can be grouped thematically. Remind students that they should look for common themes or patterns among the various inquiry questions.

What does *thematically* mean? Use the root word to guide you.

- *Thematically* means according to topic, subject, or idea.

ⓘ **Differentiation Consideration:** If students cannot define the word *thematically* using the root, consider providing them with the root word *theme* and asking them how it helps define the word.

Explain to students that they must first group the questions thematically to create an inquiry path. Then they can label this inquiry path with an overarching question.

- Students listen.

Display the following model inquiry questions:

- Does a person have the right to sell his or her own tissue, cells, organs or DNA?
- Who should own tissue, or profit from tissue after it has been surgically removed from a patient's body?

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- Have expanding patients' rights slowed down medical progress?
- What kind of research is human tissue used for?
- Do advances in medicine justify the use of human subjects?
- Can a patient withhold use of their tissue even if study of that tissue might benefit society?

  - Students examine the model inquiry questions.

Model for students how to analyze the inquiry questions for common themes or patterns. Explain to students that the first three questions focus on the individual rights of patients. The last three questions seem to focus on medicine's benefit to society. Suggest that the inquiry path for the first three questions might be: What rights do patients have to their tissue? Inform students that the inquiry path for the last three questions might be: Does society benefit from the use of human tissue and experiments?

  - Students follow along.

Instruct students to determine themes or patterns among their inquiry questions and categorize them accordingly. Instruct students to write possible inquiry path questions/problems for the categorized inquiry questions. Explain that, although students may be tempted to first come up with the path and then group their questions accordingly, this method would ignore the research they did and create paths that are not based on the research findings.

  - Students work independently to create and record inquiry paths from their inquiry questions.

ⓘ Students can do this by physically arranging questions on their desk or by taking notes.

Distribute Research Frame Tools to each student.

  - Students examine the Research Frame Tool.

Model for students how to complete the Research Frame Tool. On the top, under "Topic," write "Tissue Ownership." Explain to students that the Area of Investigation changes in this lesson. Before this lesson, students were exploring a general topic that was composed of multiple claims and issues. Inform students that in this lesson they are changing the research topic/area of investigation into a more specific and argumentative problem-based question. Explain to students that this problem-based question will focus their research for the rest of the unit and lead to an argument-based research paper in Unit 3.

  - Students follow along.

Direct students back to the Model Research Frame Tool and under "Area of Investigation" write the following problem-based question:

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- Who should own tissue, or profit from tissue after it has been surgically removed from a patient's body?

Explain to students that, based on the various inquiry paths and all the searches up to this point, this is the problem-based question that will yield the richest and most interesting areas of investigation for argument research.

- Students follow along.

ⓘ The area of investigation becomes the problem-based question on the Research Frame Tool.

Inform students that the next step is to group their inquiry questions thematically and then create an inquiry path with a title that is expressed in the form of a question or a problem. These inquiry paths should be distinct from each other but closely related, both to the area of investigation and each other.

Model how to begin completing the Research Frame Tool using the model inquiry questions and inquiry paths discussed above. Instruct students to label each inquiry path with a reference number once they have created a Research Frame. This reference number will be important in subsequent lessons for aligning various sources to one inquiry path.

- Students follow along.

Activity 4: Research Frame Tool and Assessment 40%

Instruct students to complete a Research Frame Tool independently by grouping or categorizing inquiry questions by themes or patterns, labeling each group with an inquiry path question or problem, and writing reference numbers for the inquiry paths. Additionally, instruct students to craft their problem-based question from their research topic and write on the Research Frame Tool.

Inform students that they will submit the Research Frame for assessment at the end of this lesson. When the Research Frames are returned in the next lesson, students will file them in Section 2: Gathering and Analyzing Information of their Research Portfolios.

- Students independently complete a Research Frame Tool.

ⓘ Consider circulating to offer students help with this task. Confirm that students understand each step and that they are grouping their inquiry questions thematically. Some students may be tempted to first come up with the path and then group their questions accordingly. Remind students that when they do that, they ignore their own research and their paths will not be grounded in their findings. Some students may still have problems organizing their questions; you may choose to group these students with classmates who are researching similar topics to work together to form inquiry paths.

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ⓘ Consider reminding students that the Research Frame is not static ("showing little or no change; lacking movement"). The Research Frame continues to evolve as the research evolves with future searches. Remind students this is the iterative and cyclical nature of inquiry-based research.

ⓘ Consider reminding students that as they create the Research Frame, they are addressing aspects of W.9-10.8.

ⓘ The Research Frame Tool serves as the assessment for this lesson.

Activity 5: Closing 10%

Display and distribute the homework assignment. For homework, instruct students to select one to two of their strongest inquiry questions to begin pursuing through independent research by following the research steps outlined in Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate arguments) using the appropriate tools for each of the search activities. Additionally, students should continue to add new vocabulary learned through the research process to the vocabulary journal.

- Students follow along.

ⓘ Consider reminding students to use the vocabulary strategies in standards L.9-10.4.a, c, d when completing the vocabulary journal.

Distribute additional search tools (Potential Sources Tool and Taking Notes Tool) for the homework.

Instruct students to select and copy one to two of their strongest inquiry questions from the Research Frame Tool and to record these on a separate sheet of paper to take home for homework purposes.

- Students select and copy one to two of their strongest inquiry questions from the Research Frame Tool.

Collect the Research Frame Tool for assessment purposes.

ⓘ See the High Performance Response for assessment criteria.

ⓘ Return research frames to students in the next lesson (10.3.2 Lesson 7).

Homework

Select one to two of your strongest inquiry questions to begin pursuing through independent research by following the research steps outlined in Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate arguments), using the appropriate tools for each of the search activities. Additionally, continue to add new vocabulary learned through the research process to the vocabulary journal.

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Name ..... Topic .....

Area of Investigation .....

INQUIRY PATH	INQUIRY PATH	INQUIRY PATH
Reference: IP #	Reference: IP #	Reference: IP #
Name this Inquiry Path in the form of a brief description or question:	Name this Inquiry Path in the form of a brief description or question:	Name this Inquiry Path in the form of a brief description or question:
List all the questions in this Inquiry Path:	List all the questions in this Inquiry Path:	List all the questions in this Inquiry Path:

ODELL EDUCATION

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RESEARCH FRAME

Name Model **Topic** Patients Rights

Area of Investigation Who should own tissue, or profit from tissue after it has been surgically removed from a patient's body?

INQUIRY PATH	INQUIRY PATH	INQUIRY PATH
Reference: IP # 1	**Reference:** IP # 2	**Reference:** IP # 3
Name this Inquiry Path in the form of a brief description or question: What rights do patients have?	**Name this Inquiry Path in the form of a brief description or question:** Who owns tissue, cells, organs and DNA?	**Name this Inquiry Path in the form of a brief description or question:** How does donation and compensation affect scientific research?
List all the questions in this Inquiry Path: How do patient's rights affect tissue, cell and organ ownership? What is the history of patient rights? What cases have changed the state of patient's rights? What patient's rights are similar or dissimilar in different countries? How has new technology changed the landscape of patient's rights? How can patient rights infringe on scientific advancement?	**List all the questions in this Inquiry Path:** What rights do individuals have to their own genetic code? How does payment for tissue, fluids and organs work? In what cases can you refuse to give your tissue? What happens to parts of your body that are removed? What are the medical guidelines for how to treat patient tissue? If scientists base a discovery off of your tissue do they have a right to it?	**List all the questions in this Inquiry Path:** Are there medical or scientific benefits to limiting patient's rights? Does the complex issue of tissue rights and donations prevent scientific advancement? Are the ownership laws different for non-profit research organizations? How much money is made off of patient tissue? What will happen to scientific advancements if there is no profit in it?

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10.3.2 Lesson 7

Introduction

In this lesson, students begin conducting searches independently using the Research Frame (created in Lesson 6) and associated search tools. This lesson is the first of three lessons in which students conduct sustained, independent research during class. While researching, students consider how to use inquiry questions to drive research and continually assess sources for credibility and usefulness in answering inquiry questions.

This lesson is the first of three independent search lessons (10.3.2 Lessons 7–9) assessed using a Conducting Independent Searches Checklist. The Conducting Independent Searches Checklist serves as an assessment tool for the teacher while also focusing students on specific aspects of the search process for each independent search lesson. The teacher provides feedback on the two specific criteria from the Conducting Independent Searches Checklist for each of the three lessons. For this lesson, the focal criteria are 1 and 2. Lesson 8's focal criteria are 3 and 4, and Lesson 9's focal criteria are 5 and 6.

Students begin the lesson by engaging in a research process check-in during which they update their Student Research Plan. The teacher introduces students to the Conducting Independent Searches Checklist, and students conduct research using the steps that they were introduced to in previous lessons. For the lesson assessment, students turn in their completed research materials. For homework, students continue conducting searches independently, following the steps taught in Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate arguments) and add to the vocabulary journal the new vocabulary the have learned throughout the research process.

Standards

Assessed Standard(s)	
W.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
Addressed Standard(s)	
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

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L.9-10.4.a, c, d	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9-10 reading and content*, choosing flexibly from a range of strategies. 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. c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

Assessment

Assessment(s)
Student learning in this lesson is assessed via individual students' completed research tools, including Potential Sources Tools, Taking Notes Tools, and a current Research Frame. ⓘ Consider using a form of electronic folders or other technological media to house and manage the Research Portfolio contents. Teachers who choose to use Google Drive or other cloud-based online organizational formats should display sample folders for all students to see. ⓘ The research tools are assessed using criteria 1 and 2 from the Conducting Independent Searches Checklist. Complete feedback for criteria 1 and 2 on the checklist for each student based on their research tools.
High Performance Response(s)
A High Performance Response should: • Align to criteria 1 and 2 from the Conducting Independent Searches Checklist.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

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Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards: • Standards: W.9-10.8, W.9-10.7, L.9-10.4.a, c, d	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability and Research Check-In	2. 15%
3. Conducting Independent Searches Checklist	3. 15%
4. Independent Searches	4. 55%
5. Assessment	5. 5%
6. Closing	6. 5%

Materials

- Research Portfolios (refer to 10.3.2 Lesson 1)
- Student copies of the Research Plan (refer to 10.3.2 Lesson 2)
- Copies of the Conducting Independent Searches Checklist for each student
- Extra copies of the Research Frame Tool (refer to 10.3.2 Lesson 6)
- Extra copies of the Potential Sources Tool (refer to 10.3.2 Lesson 3)
- Student copies of the Assessing Sources Handout (refer to 10.3.2 Lesson 3)
- Extra copies of the Taking Notes Tool (refer to 10.3.2 Lesson 4)
- Computers with Internet connection (one 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.
	Italicized text indicates a vocabulary word.
▸	Indicates student action(s).
🗨	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

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Activity 1: Introduction of Lesson Agenda 5%

Begin by reviewing the agenda and the assessed standard for this lesson: W.9-10.8. Students begin the lesson with a research process check-in during which they update their Student Research Plan. Students are then introduced to the Conducting Independent Searches Checklist, and conduct research using the steps they learned in previous lessons. This lesson is the first of three independent search lessons (10.3.2 Lessons 7–9) that are assessed using a Conducting Independent Searches Checklist, which focuses students on specific aspects of the search process for each independent searches lesson.

- Students look at the agenda.

Activity 2: Homework Accountability and Research Check-In 15%

Instruct students to take out the Lesson 6 homework: Select one to two of your strongest inquiry questions to begin pursuing through independent research by following the research steps outlined in Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate arguments), using the respective tools for each of the search activities. Additionally, continue to add new vocabulary learned through the research process to the vocabulary journal.

- Students take out the Lesson 6 homework.

Instruct students to Turn-and-Talk with a classmate, discussing one credible and relevant source they found related to one of the inquiry questions and two new vocabulary words learned through the source.

- Student responses will vary by students' individual problem-based questions. Student responses may include:
  - My question "Does a patient have rights to tissue that's removed from their body?" led me to a source called "Do We Own Our Bodily Tissues?" in *The Voice of San Diego*. And, it is credible because the author is a medical expert and the information is relevant to my selected inquiry question because it discusses the various issues inherent in tissue ownership.
  - I learned *fundamental* means "forming a necessary base or core" and *innumerable* means "too many to be counted."

ⓘ Consider collecting students' homework to assess the progress of their research.

Instruct students to take out the Student Research Plan from the front of their Research Portfolio.

- Students take out their Student Research Plans.

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Return the previous lesson's assessment, the Research Frame, with feedback to each student, and instruct students to examine the feedback.

- Students examine the feedback on the Research Frame.

Instruct students to review the Research Plan Part 2, where it discusses annotating and taking notes on sources, and building a Research Frame. Instruct students to use the previous lesson's homework and assessment (Research Frame) to journal about their research progress and next steps.

- Students review the Research Plan Part 2, and use the previous lesson's homework and assessment to journal about their research progress and next steps.

- Student responses will vary by individual research question/problem-based question, but look for students to use the language of the Research Plan when reflecting on their research progress and next steps.

ⓘ Instruct students to continue the Research Journal started in Lesson 2. Students can write on separate sheets of paper or in a notebook and keep the Research Journal in the Research Portfolio.

Instruct students to file the Research Plan in the front section of the Research Portfolio and organize the materials from the previous lesson in Section 2: Gathering and Analyzing Information.

- Students file the Student Research Plan in the front section of the Research Portfolio.

Activity 3: Conducting Independent Searches Checklist 15%

Explain to students that this lesson begins a series of three lessons in which students conduct independent searches during class time and for homework. Inform students that each independent searches lesson (10.3.2 Lessons 7–9) has a different focus but includes all the steps of the research process taught in previous lessons.

- Students listen.

Display and distribute the Conducting Independent Searches Checklist. Explain to students that the Conducting Independent Searches Checklist synthesizes all the criteria for an effective search into one list. Explain to students that for each of the three independent searches lessons, students will focus on two criteria to assess their research progress. Inform students that for this lesson, criteria 1 and 2 are the focus. However, students should still consider all the research steps because all of the criteria are important in conducting effective research. Remind students that the skills necessary to meet the criteria have been taught throughout the previous lessons.

- Students examine the Conducting Independent Searches Checklist.

Instruct students to read the criteria in the Conducting Independent Searches Checklist and then Turn-and-Talk in pairs to consider the criteria's specific actions and any questions or clarification needed. Instruct student pairs to answer the following questions before sharing out with the class.

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- Student responses will vary but listen for students to use the language of the Conducting Independent Searches Checklist while discussing.

What specific action is required for criterion 1, "Uses inquiry questions to drive research and identify sources"?

- The criterion's action is that the inquiry questions should drive the research. We should be searching for sources that provide information related to our inquiry questions. The research is based on inquiry or answering questions to gain a deeper understanding of the problem-based question.

What specific action is required for criterion 2, "Continually assesses sources for credibility; identifies the usefulness of a particular source and explains why a particular source does or does not help respond to an inquiry question"?

- This criterion is describing how to assess sources by using the Potential Sources Tool and Assessing Sources Handout introduced in earlier lessons. It is important to quickly get rid of any sources that are not credible, accessible, or relevant.

What specific action is required for criterion 3, "Determines if information is sufficient to address established inquiry paths and questions in the Research Frame and adjusts the search accordingly"?

- This criterion's action is describing how to assess the research and if there is enough to answer inquiry questions or address inquiry paths. Sometimes new questions emerge and some questions need to be eliminated based on the direction of the research. Sometimes additional sources need to be explored.

What specific action is required for criterion 4, "Reads sources closely, analyzes details and ideas, and records notes for each source to determine how it addresses inquiry questions and paths"?

- This criterion's action is about selecting key sources to read closely for information that addresses select inquiry questions and paths.

What specific action is required for criterion 5, "Makes decisions about the research direction based on reviews of annotation and notes and relevance to inquiry questions/paths. This may include discontinuing inquiry paths and adding inquiry paths/questions"?

- This criterion's action is about deciding which inquiry paths and questions have been addressed by the research and making decisions about which direction to go with the research.

What specific action is required for criterion 6, "Marks key info in sources, takes notes of initial impressions, identifies additional research needs, and inserts codes to link to inquiry paths"?

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- This criterion's action is about annotating and taking notes on key sources, but also beginning to analyze those sources for how they answer the selected inquiry question. This criterion also contributes to changes in research direction that might take place.

ⓘ Look for essential understanding of the criterion's action, its nonlinear nature, and the repetitive practices that research calls for. Consider generating follow-up questions as necessary.

ⓘ Students do not need to complete the Conducing Independent Searches Checklist; it is for assessment purposes only.

Lead a brief whole-class discussion of students' responses and questions.

Activity 4: Independent Searches 55%

Instruct students to begin working on their independent searches. Remind students they will be assessed on criteria 1 and 2 on the Conducting Independent Searches Checklist. Remind students of the research steps (planning for searches, assessing sources, annotating, taking notes, and evaluating arguments). Remind students to organize all search materials in their Research Portfolios, Section 2.

Transition students to independent searches. Distribute extra Potential Sources Tools, Taking Notes Tools, and Research Frame Tools as needed to each student.

- Students do their independent searches, using the Research Frame and the steps from earlier lessons (planning for searches, assessing sources, annotating, taking notes, and evaluating arguments).

ⓘ Consider displaying the search steps from 10.3.2 Lessons 3–5 for students to see.

ⓘ Consider using the media center or library for this lesson so students have access to librarians or media specialists.

ⓘ Students need access to computers with Internet capacity for research purposes. Prepare for the lesson ahead of time by reserving space in rooms with technology access for all students.

ⓘ Consider drawing students' attention to their application of standard W.9-10.7, through the use of research skills necessary to complete this activity.

Circulate to support students as they engage in the research process. Ask students to consult the Conducting Independent Searches Checklist as a reminder of the components of the research process.

ⓘ Place students in heterogeneous groups of four or five that remain consistent throughout the module. Consider forming groups ahead of time to maximize the range of different research topics and questions within each group. The goal of these groups is to create small communities of inquiry/research teams that provide support and accountability to each other. Students should know about their teammates' topics, research questions, central claims, etc. Students should share

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claims and evidence that arise from their individual inquiry and learn from each other's research processes, which they may use to potentially refine their own inquiry topics and questions.

ⓘ **Differentiation Consideration:** Some of the topics students are researching may yield complex or inaccessible texts. To address this concern, consider recommending that students make use of free databases accessible through http://novelnewyork.org/ such as Grolier, Gale, and ProQuest; these databases allow searches by subject/keyword and students may filter the searches so that only texts within certain Lexile ranges are returned. Consider collaborating with a librarian or media specialist to access these databases and create filtered searches that support students' reading levels.

ⓘ Remind students to continue considering print and non-text media when researching and to think about how visuals or auditory media can provide information or demonstrate information in ways different from text.

Activity 5: Assessment 5%

Collect the completed research tools from the lesson, including the Potential Sources Tools, Taking Notes Tools, and a current Research Frame.

- Students turn in the completed research tools from the lesson.

ⓘ **Differentiation Consideration:** For further assessment, and to have students begin developing their argument writing skills, consider having students respond briefly in writing to the following prompt:

Choose one central claim researched today. Identify the evidence that supports this claim and evaluate how the evidence is relevant and sufficient to the claim.

Activity 6: Closing 5%

Display and distribute the homework assignment. For homework, instruct students to continue conducting searches independently, following the steps taught in 10.3.2 Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate argument) and add to the vocabulary journal the new vocabulary learned through the research process.

- Students follow along.

ⓘ Distribute additional tools as needed. Students should bring to class annotated sources and completed research tools as evidence of their independent research.

ⓘ Consider reminding students to use the vocabulary strategies in standards L.9-10.4.a, c, d when completing the vocabulary journal.

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Homework

Continue conducting searches independently, following the steps taught in 10.3.2 Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate argument) and add to the vocabulary journal any new vocabulary you learn through the research process. Bring to class annotated sources and completed research tools from your searches.

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Conducting Independent Searches Checklist

Name:		Class:		Date:	

Conducting Independent Searches Criteria	Teacher Feedback
1. Uses inquiry questions to drive research and identify sources.	
2. Continually assesses sources for credibility; identifies the usefulness of a particular source and explains why a particular source does or does not help respond to an inquiry question.	
3. Determines if information is sufficient to address established inquiry paths and questions in the Research Frame and adjusts the search accordingly.	
4. Reads sources closely, analyzes details and ideas, and records notes for each source to determine how it addresses inquiry questions and paths.	
5. Makes decisions about the research direction based on reviews of annotation and notes and relevance to inquiry questions/paths. This may include discontinuing inquiry paths and adding inquiry paths/questions.	
6. Marks key info in sources, takes notes of initial impressions, identifies additional research needs, and inserts codes to link to inquiry paths.	

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10.3.2 Lesson 8

Introduction

In this lesson, students continue to conduct searches independently using the Research Frame as a guide, with the associated search tools. This is the second lesson of the independent search process and builds on the previous lesson by asking students to determine if the research surfaced is sufficient to address established inquiry paths and questions, while adjusting the search accordingly. Additionally, students read sources closely, analyze details and ideas, evaluate a source's argument, and take notes for each source to determine how it addresses inquiry questions and paths.

Students begin by using the previous lesson's assessment (completed research tools), with teacher feedback, to assess their current search process and make strategic decisions about changes, additions, and deletions to the Research Frame. As a result, students update their Research Frames as needed. Students continue to independently research, using the steps previously taught in Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate argument). For the lesson assessment, students turn in all completed research tools, including Potential Sources Tools, Taking Notes Tools, and a current Research Frame. For homework, students continue conducting searches independently, following the steps taught in Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate arguments) and add to the vocabulary journal any new vocabulary learned through the research process.

Standards

Assessed Standard(s)	
W.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
Addressed Standard(s)	
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

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L.9-10.4.a, c, d	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9-10 reading and content*, choosing flexibly from a range of strategies. 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. c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

Assessment

Assessment(s)
The learning in this lesson is assessed via individual students' completed research tools, including Potential Sources Tools, Taking Notes Tools, and a current Research Frame. ⓘ The research tools will be assessed using the Conducting Independent Searches Checklist (refer to 10.3.2 Lesson 7). Complete feedback for criteria 3 and 4 on the checklist for each student based their research tools.
High Performance Response(s)
A High Performance Response should: • Align to criteria 3 and 4 in the Conducting Independent Searches Checklist.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

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Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards:	
• Standards: W.9-10.8, W.9-10.7, L.9-10.4.a, c, d	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability and Research Check-In	2. 25%
3. Independent Searches	3. 60%
4. Assessment	4. 5%
5. Closing	5. 5%

Materials

- Research Portfolios (refer to 10.3.2 Lesson 1)
- Extra copies of the Assessing Sources Handout (refer to 10.3.2 Lesson 3)
- Extra copies of the Potential Sources Tool (refer to 10.3.2 Lesson 3)
- Extra copies of the Taking Notes Tool (refer to Lesson 10.3.2 Lesson 4)
- Student copies of the current Research Frame (refer to 10.3.2 Lesson 6)
- Student copies of the Conducting Independent Searches Checklist (refer to 10.3.2 Lesson 7)
- Computers with Internet connection (one 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.
	Italicized text indicates a vocabulary word.
▸	Indicates student action(s).
💬	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

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Activity 1: Introduction of Lesson Agenda 5%

Begin by reviewing the agenda and the assessed standard for this lesson: W.9-10.8. In this lesson, students use the previous lesson's assessment (completed research tools), with teacher feedback, to assess their search process and make strategic decisions about changes, additions, and deletions to the Research Frame. Students continue to research independently, using the steps previously taught in Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate argument). Additionally, students turn in all completed research tools, including Potential Sources Tools, Taking Notes Tools, and a current Research Frame to close the lesson.

- Students look at the agenda.

Activity 2: Homework Accountability and Research Check-In 25%

Instruct students to take out the independent research completed for the previous lesson's homework and the Conducting Independent Searches Checklist from the previous lesson.

- Students take out their completed research and the Conducting Independent Searches Checklist.

Instruct students to Turn-and-Talk in pairs about criteria 1 and 2 on the Conducting Independent Searches Checklist by discussing two examples from the homework (independent research) that best exemplify these criteria.

- Student responses will vary based on their individual research but listen for students to use the language of criteria 1 and 2 from the Conducting Independent Searches Checklist.

ⓘ Criterion 1 on the Conducting Independent Searches Checklist is "Uses inquiry questions to drive research and identify sources." Criterion 2 is "Continually assesses sources for credibility; identifies the usefulness of a particular source and explains why a particular source does or does not help respond to an inquiry question."

ⓘ Students were introduced to the Conducting Independent Searches Checklist in the previous lesson.

ⓘ Consider circulating during the discussion to monitor students' research progress and hold students accountable for homework completion.

ⓘ Consider drawing students' attention to their application of standard W.9-10.7, through the use of research skills necessary to complete this activity.

Return to each student the previous lesson's completed research tools (with teacher feedback on criteria 1 and 2 of Conducting Independent Searches Checklist). Instruct students to examine the materials.

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- Students examine teacher feedback on the previous lesson's completed research tools.

ⓘ Criteria 1 and 2 of the Conducting Independent Searches Checklist were used to assess the completed research tools. Prepare for the lesson ahead of time by preparing feedback for each student on criteria 1 and 2 of the checklist, based on individual students' completed research tools.

Remind students that this type of inquiry-based research is cyclical and nonlinear. Sometimes new paths develop and some paths are abandoned depending on the direction of the research. Instruct students to reflect on their research from the previous lesson's homework and assessment by thinking about how their Research Frame should change or stay the same.

Instruct students to form pairs. Post or project the following questions for student pairs to discuss:

Which inquiry paths deserve more attention and further development?

Which inquiry paths need to be discontinued or abandoned?

What new inquiry questions are emerging?

What new inquiry paths are emerging?

- Student responses will vary based on the individual students' problem-based questions. However, listen for students to discuss changes, additions, and deletions to inquiry questions/paths.

Instruct students to independently revise/refine their Research Frames based on the previous pair reflection.

- Students independently revise/refine their Research Frame.

ⓘ **Differentiation Consideration:** If students need additional support, consider modeling changes, additions, and deletions to the model Research Frame that was developed in Lesson 6.

ⓘ Students can write their revisions directly on their current Research Frame, on an additional Research Frame, or another sheet of paper.

ⓘ **Differentiation Consideration:** Some students may not need to alter their Research Frames as a result of their research, provided the research is sufficient to support the current Research Frame. Consider having these students peer review each other's Research Frames and research notes/tools to ensure no alterations are necessary.

Instruct students to organize and file all research and associated materials in the Research Portfolio (Section 2: Gathering and Analyzing Information).

- Students organize and file all research and associated materials.

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Activity 3: Independent Searches 60%

Remind students of the search steps from Lessons 3–5 (planning for searches, assessing sources, annotating sources, taking notes, and evaluating arguments). Inform students that at the end of this lesson they will submit their independent search materials to be assessed on criteria 3 and 4 on the Conducting Independent Searches Checklist.

Transition students to independent searches.

- Students work on independent searches.

ⓘ Consider displaying the search steps from 10.3.2 Lessons 3–5 for students to see.

ⓘ Consider using the media center or library for this lesson so students have access to librarians or media specialists.

ⓘ Students need access to computers with Internet capacity for research purposes. Prepare for the lesson ahead of time by reserving space in rooms with technology access for all students.

Circulate around the room to support students as they engage in the research process. Consider using the Conducting Independent Searches Checklist to monitor students' progress as they research.

- Students independently search for sources using their current Research Frame and the steps from 10.3.2 Lessons 3–5 (planning for searches, assessing sources, annotating sources, recording notes, and evaluating arguments).

ⓘ Place students in heterogeneous groups of four or five that will remain consistent throughout the module. Consider forming groups ahead of time to maximize the range of different research topics and questions within each group. The goal of these groups is to create small communities of inquiry/research teams that provide support and accountability to each other. Students should know about their teammates' topics, research questions, central claims, etc. Students share claims and evidence that arise from their individual inquiry and learn from each other's research processes, which they may use to potentially refine their own inquiry topics and questions.

ⓘ **Differentiation Consideration:** Some of the topics students are researching may yield complex or inaccessible texts. To address this concern, consider recommending that students make use of free databases accessible through http://novelnewyork.org/ such as Grolier, Gale, and ProQuest; these databases allow searches by subject/keyword and students may filter the searches so that only texts within certain Lexile ranges are returned. Consider collaborating with a librarian or media specialist with regard to accessing these databases and creating filtered searches that support students' reading levels.

ⓘ Remind students to continue considering print and media when researching and to think about how visuals or auditory media can provide information or demonstrate information in ways different from written text.

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Activity 4: Assessment 5%

Collect the completed research tools from the lesson, including the Potential Sources Tools, Taking Notes Tools, and a current Research Frame.

- Students turn in their completed research tools from the lesson.

ⓘ **Differentiation Consideration:** For further assessment, and to have students begin developing their argument writing skills, consider having students respond briefly in writing to the following prompt:

Write an evidence-based claim about an inquiry question researched in class using evidence found in your sources.

Instruct students to look at the annotations in their sources and research tools to find evidence. Remind students to use the Short Response Rubric and Checklist to guide their written responses and to practice using specific language and domain-specific vocabulary.

Activity 5: Closing 5%

Display and distribute the homework assignment. For homework, instruct students to continue conducting searches independently, following the steps taught in Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate argument). Additionally, instruct students to add new vocabulary learned through the research process to their vocabulary journal.

- Students follow along.

ⓘ Consider reminding students to use the vocabulary strategies in standards L.9-10.4.a, c, d when completing the vocabulary journal.

Homework

Continue conducting searches independently, following the steps taught in 10.3.2 Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate arguments). Additionally, add new vocabulary learned through the research process to the vocabulary journal.

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10.3.2 Lesson 9

Introduction

This lesson is the last in a series of three lessons focused on conducting searches independently. This lesson focuses on criteria 5 and 6 of the research process in the Conducting Independent Searches Checklist. As in Lesson 8, students use the previous lesson's assessment (completed research tools), with teacher feedback, to assess their current search process and make strategic decisions about changes, additions, and deletions to the Research Frame. Students update the Research Frame as needed. Students continue to research independently, using the steps taught in 10.3.2 Lessons 3–5 (plan searches, assess sources, annotate sources, record notes, and evaluate arguments).

For the lesson assessment, students turn in all completed research tools, including Potential Sources Tools, Taking Notes Tools, and a current Research Frame. For homework, students continue conducting searches independently, following the steps outlined in 10.3.2 Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate arguments). Additionally, students organize their research by inquiry paths in the Research Portfolio.

Standards

Assessed Standard(s)	
W.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
Addressed Standard(s)	
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

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Assessment

Assessment(s)
Student learning in this lesson is assessed via individual students' completed research tools, including Potential Sources Tools, Taking Notes Tools, and a current Research Frame. ⓘ The research tools will be assessed using the Conducting Independent Searches Checklist (refer to 10.3.2 Lesson 7). Complete feedback for criteria 5 and 6 on the checklist for each student based on their research tools.
High Performance Response(s)
A High Performance Response should: • Align to criteria 5 and 6 in the Conducting Independent Searches Checklist.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text:	
• Standards: W.9-10.8, W.9-10.7	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability and Research Check-In	2. 20%
3. Independent Searches	3. 60%
4. Assessment	4. 5%
5. Closing	5. 10%

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Materials

- Research Portfolios (refer to 10.3.2 Lesson 1)
- Student copies of the current Research Frame (refer to 10.3.2 Lesson 6)
- Extra copies of the Assessing Sources Handout (refer to 10.3.2 Lesson 3)
- Extra copies of the Potential Sources Tool (refer to 10.3.2 Lesson 3)
- Extra copies of the Taking Notes Tool (refer to Lesson 10.3.2 Lesson 4)
- Student copies of the Conducting Independent Searches Checklist (refer to 10.3.2 Lesson 7)
- Computers with Internet connection (one 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.
	Italicized text indicates a vocabulary word.
▸	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 sharing the assessed standard for this lesson: W.9-10.8. In this lesson, students use the previous lesson's assessment (completed research tools), with teacher feedback, to assess their current search process and make strategic decisions about changes, additions, and deletions to the Research Frame. Students continue to research independently, using the steps previously taught in 10.3.2 Lessons 3–5 (plan searches, assess sources, annotate sources, record notes, and evaluate arguments). Additionally, students turn in all completed research tools from the lesson, including Potential Sources Tools, Taking Notes Tools, and a current Research Frame.

- ▸ Students look at the agenda.

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Activity 2: Homework Accountability and Research Check-In 20%

Instruct students to take out the independent research completed for the previous lesson's homework and the Conducting Independent Searches Checklist.

- Students take out their homework and Conducting Independent Searches Checklist.

Instruct students to Turn-and-Talk with a classmate about criteria 3 and 4 on the Conducting Independent Searches Checklist by discussing two examples from the homework (independent research) that best exemplify these criteria.

- Student responses will vary based on their individual research but listen for students to use the language of criteria 3 and 4 from the Conducting Independent Searches Checklist.

ⓘ Criterion 3 on the Conducting Independent Searches Checklist is "Determines if information is sufficient to address established inquiry paths and questions in the Research Frame and adjusts the search accordingly." Criterion 4 is "Reads sources closely, analyzes details and ideas, and takes notes for each source to determine how it addresses inquiry questions and paths."

ⓘ Students were provided with a Conducting Independent Searches Checklist in 10.3.2 Lesson 7.

ⓘ Circulate during the pair discussion to monitor students' research progress and to hold students accountable for homework completion.

ⓘ Consider drawing students' attention to their application of standard W.9-10.7, through the use of research skills necessary to complete this activity.

Instruct students to organize and file their research materials from the previous lesson's homework and assessment in the Research Portfolio.

- Students organize and file their research materials in the Research Portfolio.

Return to each student the previous lesson's completed research tools (with teacher feedback on criteria 3 and 4 of the Conducting Independent Searches Checklist). Instruct students to examine the materials.

- Students examine teacher feedback on the previous lesson's completed research tools.

ⓘ Criteria 3 and 4 of the Conducting Independent Searches Checklist were used to assess the completed research tools. Prepare for the lesson ahead of time by preparing feedback for each student on criteria 3 and 4 of the checklist, based on individual students' completed research tools.

Inform students that this is the final lesson on independent searches. Explain that, before doing more independent research in this lesson, students will reflect on the previous lesson's homework and assessment materials, considering how their Research Frames should change or stay the same.

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- Students listen.

Instruct students to reflect individually on the following questions and revise or refine their Research Frame accordingly:

What inquiry paths deserve more attention and further development?

What inquiry paths need to be discontinued or abandoned?

What new inquiry questions are emerging?

What inquiry questions can be discontinued or abandoned?

- Students reflect on the previous questions and revise or refine their Research Frame accordingly.

ⓘ Consider reminding students to use their completed research and teacher feedback, based on the assessments from Lessons 7 and 8 to support their revisions.

ⓘ Students can write their revisions directly on the current Research Frame, on an additional Research Frame, or another sheet of paper.

ⓘ **Differentiation Consideration:** Some students may not need to alter the Research Frame as a result of their research. Consider having these students peer review each other's Research Frames and research notes/tools to ensure no alterations are necessary.

ⓘ **Differentiation Consideration:** If students need more support, consider modeling for students how to revise or refine the Research Frame by using the Model Research Frame developed in 10.3.2 Lesson 6.

Activity 3: Independent Searches 60%

Remind students of the search steps from 10.3.2 Lessons 3–5 (plan searches, assess sources, annotate sources, take notes, and evaluate arguments). Inform students that at the end of this lesson they will submit their independent search materials to be assessed on criteria 5 and 6 on the Conducting Independent Searches Checklist.

Transition students to independent searches.

- Students work on independent searches.

ⓘ Consider displaying the search steps from 10.3.2 Lessons 3–5 for students to see.

ⓘ Consider using the media center or library for this lesson so students have access to librarians or media specialists.

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ⓘ Students need access to computers with Internet capacity for research purposes. Prepare for the lesson ahead of time by reserving space in rooms with technology access for all students.

Circulate around the room to support students as they engage in the research process. Consider using the Conducting Independent Searches Checklist to monitor student progress as they research.

- Students independently search for sources using a current Research Frame and the steps from 10.3.2 Lessons 3–5 (plan for searches, assess sources, annotate sources, record notes, and evaluate arguments).

ⓘ Place students in heterogeneous groups of four to five that will remain consistent throughout the module. Consider forming groups ahead of time to maximize the range of different research topics and questions within each group. The goal of these groups is to create small communities of inquiry/research teams that provide support and accountability to each other. Students should know about their teammates' topics, research questions, central claims, etc. Students should share claims and evidence that arise from their individual inquiry and learn from each other's research processes, which they may use to potentially refine their own inquiry topics and questions.

ⓘ **Differentiation Consideration:** Some of the topics students are researching may yield complex or inaccessible texts. To address this concern, consider recommending that students make use of free databases accessible through http://novelnewyork.org/, such as Grolier, Gale, and ProQuest; these databases allow searches by subject/keyword and students may filter the searches so that only texts within certain Lexile ranges are returned. Consider collaborating with a librarian or media specialist with regard to accessing these databases and creating filtered searches that support students' reading levels.

ⓘ Remind students to continue considering print and non-text media when researching and to think about how visuals or auditory media can provide or demonstrate information in ways different from text.

Activity 4: Assessment 5%

Collect the completed research tools from the lesson, including the Potential Sources Tools, Taking Notes Tools, and a current Research Frame.

- Students turn in the completed research tools from the lesson.

ⓘ **Differentiation Consideration:** For further assessment, and to have students begin developing their argument writing skills, consider having students respond briefly in writing to the following prompt:

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Identify a claim that counters a claim identified in 10.3.2 Lesson 7 or 10.3.2 Lesson 8. Identify the evidence that supports this counterclaim and evaluate how the evidence is relevant and sufficient to the counterclaim.

Instruct students to look at the annotations in their sources and research tools to find evidence. Remind students to use the Short Response Rubric and Checklist to guide their written responses and to practice using specific language and domain-specific vocabulary when responding.

Activity 5: Closing 10%

Display and distribute the homework assignment. For homework, instruct students to continue conducting searches independently, following the steps taught in 10.3.2 Lessons 3–5 (plan searches, assess sources, annotate sources, record notes, evaluate arguments). Additionally, instruct students to organize the multiple sources and research tools by inquiry path in the Research Portfolio.

Explain to students how to organize the multiple sources and research tools by inquiry path in the Research Portfolio. Students should examine their current Research Frames and Research Portfolios, and then compile and organize all of their notes, annotated sources, and tools by inquiry path. Students can do this either by reorganizing Section 3 of the Research Portfolio by inquiry path, or by marking their notes, annotated sources, and tools by the inquiry path number that is located on the Research Frame. Remind students to put research information that is not useful or relevant in Section 4 of the Research Portfolio.

- Students follow along.

ⓘ Section 3 of the Research Portfolio is the Drawing Conclusions Section. Section 4 of the Research Portfolio is the Discarded Material Section.

ⓘ Students may have their own system for organizing their research materials by inquiry path. The goal is for students to organize their research materials by inquiry path so how that goal is achieved may look different for individual students.

ⓘ This homework requires students to take home the Research Portfolio.

ⓘ Distribute additional tools as needed. Students should bring in annotated sources and completed research tools as evidence of their independent research.

Homework

Continue conducting searches independently, following the steps taught in Lessons 3–5 (plan searches, assess sources, annotate sources, record notes, and evaluate arguments). Additionally, organize your sources and research tools by inquiry path in the Research Portfolio.

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10.3.2 Lesson 10

Introduction

In this lesson, students analyze and synthesize their research to begin making claims about inquiry questions within an inquiry path. Students use at least two Forming Evidence-Based Claims Tools to develop claims about all inquiry paths on the Research Frame.

Students begin by choosing the inquiry path that yielded the richest research and narrowing the focus down to a single inquiry question. Students then skim their research associated with that inquiry question, including annotated sources and the Taking Notes Tools. Students highlight the pertinent evidence directly on the annotated sources or the Taking Notes Tools. Students then select details from the highlighted evidence to make claims about inquiry questions and inquiry paths by completing at least two Forming Evidence-Based Claims Tools. These initial claims are the foundation for the Evidence-Based Perspective that students will develop in Lesson 13. For the lesson assessment, students turn in their Forming Evidence-Based Claims Tools, which are assessed using the Evidence-Based Claims Criteria Checklist.

For homework, students continue the process introduced in this lesson by analyzing and synthesizing their research and completing at least two Forming Evidence-Based Claims Tools for every inquiry path on the Research Frame.

Standards

Assessed Standard(s)	
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
W.9-10.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
Addressed Standard(s)	
W.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.

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Assessment

Assessment(s)
Student learning in this lesson will be assessed via at least two completed Forming Evidence-Based Claims Tools, to develop claims about one inquiry path. ⓘ The Forming Evidence-Based Claims Tools will be assessed using the Evidence-Based Claims Criteria Checklist.
High Performance Response(s)
Individual student tools will vary by the individual's problem-based question. A High Performance Response should: • Provide details that are important for answering the inquiry question (e.g., "Courts found that state law provided little basis for granting patients a property interest in their voluntarily donated, excised tissue."). • A brief analysis of the meaning of the details and an explanation of the connections between them (e.g., These details suggest that it is not the patient but the tissue banks that control human tissue samples.). • A claim based on the evidence and analysis (e.g., Tissue banks, not individuals, have control over tissue samples.). ⓘ See the Model Forming Evidence-Based Claims Tools at the end of the lesson for detailed model student responses.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

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Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text: • Standards: W.9-10.7, W.9-10.9, W.9-10.8 • Texts: "Body of Research—Ownership and Use of Human Tissue" by R. Alta Charo, "Tissue Banks Trigger Worry About Ownership Issues" by Charlie Schmidt	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability and Research Check-In	2. 15%
3. Analyzing Research	3. 50%
4. Synthesizing Research and Lesson Assessment	4. 25%
5. Closing	5. 5%

Materials

- Completed Research Tools (refer to 10.3.2 Lesson 9)
- Copies of the Forming Evidence-Based Claims Tool for each student (at least six per student)
- Research Portfolios (refer to 10.3.2 Lesson 1)
- Highlighters (one for every 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.
	Italicized text indicates a vocabulary word.
▸	Indicates student action(s).
💬	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

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Activity 1: Introduction of Lesson Agenda 5%

Begin by reviewing the agenda and the assessed standards for this lesson: W.9-10.7 and W.9-10.9. In this lesson, students choose an inquiry path that yielded rich research and then narrow down the focus to a single inquiry question. Students then review their research associated with that inquiry question, including annotated sources and the Taking Notes Tools. Students highlight the important evidence directly on the annotated sources or the Taking Notes Tools, and select details from the highlighted evidence to make claims about the inquiry questions and inquiry paths by completing the Forming Evidence-Based Claims Tools. These initial claims serve as the foundation for the Evidence-Based Perspective students develop in Lesson 13.

- Students look at the agenda.

Activity 2: Homework Accountability and Research Check-In 15%

Return to each student the previous lesson's completed research tools (with teacher feedback on criteria 5 and 6 of the Conducting Independent Searches Checklist). Instruct students to examine the materials.

- Students examine teacher feedback on the previous lesson's completed research tools.

ⓘ Criteria 5 and 6 of the Conducting Independent Searches Checklist were used to assess the completed research tools. Prepare for the lesson ahead of time by preparing feedback for each student on criteria 5 and 6 of the checklist, based on individual students' completed research tools.

Instruct students to take out the homework from the previous lesson, including their completed research and the organized research from their Research Portfolios.

- Students take out their completed research and the organized research from the Research Portfolio.

ⓘ The previous lesson's homework was to continue conducting searches independently (following the steps taught in Lessons 3–5) and organize all research notes, annotated sources, and tools by inquiry path.

Instruct students to examine the organized Research Portfolio and previous lesson's work, and Turn-and-Talk in pairs to discuss the following question:

Which inquiry paths from your Research Frame yielded the richest information from the source materials?

- Students Turn-and-Talk in pairs about which inquiry paths yielded the richest information from the source materials.

ⓘ Consider providing students with the following definition: *yielded* means "gave forth or produced."

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- Student responses may include:
  - I noticed that I had several relevant and useful resources for Inquiry Path 1. These references provided some answers to each of the inquiry questions within this path. So, Inquiry Path 1 seems to be the richest path in terms of information across multiple sources.
  - I noticed that I was able to answer several questions within each inquiry path but not address all the inquiry questions within one path. My research is scattered across multiple paths.

ⓘ Circulate around the room to monitor student progress and hold students accountable for the previous lesson's homework by listening for students to use evidence from their research.

Instruct students to take out the Student Research Plan from the front of the Research Portfolio, and examine Part 2: Gathering Information. Instruct students to write in their Research Journal about their research progress and next steps based on Part 2: Gathering Information. Instruct students to use the language of W.9-10.7 and W.9-10.8 that aligns to this section in their journal responses.

- Student responses will vary by individual problem-based question but look for students to use the language of the Student Research Plan and evidence from their specific research.

ⓘ The Student Research Plan and Research Journal were introduced in Lesson 2.

ⓘ The language from W.9-10.7 that aligns with Part 2: Gathering Information includes "narrow or broaden the inquiry when appropriate." The language from W.9-10.8 that aligns with Part 2: Gathering Information includes "Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question."

Instruct students to organize and file the Student Research Plan, Research Journal, and the other homework and assessment materials in the Research Portfolio.

- Students organize and file their materials in their Research Portfolios.

Activity 3: Analyzing Research 50%

Explain to students that they have been focused on researching and analyzing sources for the individual questions in their inquiry paths. In this next step, students take a more global perspective on their research by returning to the Research Frame and analyzing their evidence across multiple sources to see if they can answer some of their inquiry questions. Inform students that the goal of this activity is to understand what the research says about each inquiry path now that the research is mostly complete.

- Students listen.

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ⓘ After this lesson's activities, some students may continue researching if they have not yet found enough evidence to directly support a claim about each inquiry path.

Instruct students to follow specific steps to analyze the research in order to think about their developing understanding about each inquiry path. Display and explain each step:

- Step 1: Review the Research Frame and analyze each inquiry path. Choose an inquiry path that surfaced the richest research across multiple sources. This inquiry path will now become your focus inquiry path.
- Step 2: Analyze the focus inquiry path and circle inquiry questions within the path that led to the most useful and relevant research.
- Step 3: Choose one of the circled inquiry questions and skim all the research associated with that one inquiry question, highlighting evidence and details that answer the chosen inquiry question. This step may include reading or skimming across multiple sources for one inquiry question.
- Alternative to Step 3: If five or more inquiry questions are circled within one inquiry path, an optional step is to choose the inquiry path question itself to reread, and analyze the research associated with that path.
- Step 4: Continue to repeat this process for as many questions as possible in each inquiry path (even for inquiry paths that did not yield the most interesting or rich research).

  - Students listen and examine the steps.

Display the Model Research Frame (from 10.3.2 Lesson 6) for students to see.

  - Students examine the Model Research Frame.

ⓘ The Model Research Frame is located in Lesson 6 and has been used throughout the unit to model content for students.

Model for students how to follow the research analysis steps. Remind students that Step 1 is to "Review the Research Frame and analyze each inquiry path. Choose an inquiry path that surfaced the richest research across multiple sources. This inquiry path will now become your focus inquiry path." Explain to students that after examining all the inquiry paths, you decided that the following two paths yielded the richest research: Inquiry Path 1 (What rights do patients have?) and Inquiry Path 2 (Who owns tissue, cells, organs and DNA?). Many of the resources addressed both of these paths. However, Inquiry Path 2's questions led to the most relevant and useful information, so Inquiry Path 2 should be the focus path for this first analysis process.

  - Students listen and follow along with the modeling.

Model for students how to complete Step 2, "Analyze the focus inquiry path and circle inquiry questions within the path that led to the most useful and relevant research." Explain to students that you are examining the focus inquiry path (Inquiry Path 2) and all the questions within it, and thinking about the

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independent searches previously conducted. Explain to students that the many inquiry questions within Inquiry Path 2 that were answered through research include the following: What happens to parts of your body that are removed? What are the medical guidelines for how to treat patient tissue? If scientists base a discovery off of your tissue, do they have a right to it? How does payment for tissue, fluids and organs work?

Circle the questions for students to see.

- Students listen and follow along with the modeling.

Explain to students that Step 3 in the research analysis process is to "choose one of the circled inquiry questions, skim all the research associated with the chosen inquiry question, and highlight evidence and details that answer the chosen inquiry question. This step may include reading across multiple sources for one inquiry question." Explain to students that since four of the inquiry questions were circled on the Model Research Frame, the inquiry path question itself can be used as the question to focus the rereading and analysis of the associated research. Circle the inquiry path question, "Who owns tissue, cells and organs and DNA?"

- Students listen and follow along with the modeling.

Model for students how to use the inquiry path question itself (Who owns tissue, cells and organs and DNA?) to guide the research analysis. Demonstrate how to skim through a source to find, read, and highlight key evidence associated with the chosen inquiry question. Skim through Source 7, "Body of Research—Ownership and Use of Human Tissue," and discuss which evidence to highlight for the chosen inquiry question.

- Students listen and follow along with the modeling.
- Possible highlighted evidence to model from Source 7 "Body of Research—Ownership and Use of Human Tissue" is the following:
  - "the question of whether we "own" our bodies must be answered soon: courts now face multiple controversies concerning the use of bits and pieces of bodies—and their derivatives—that are scattered among pathology laboratories, state hygiene laboratories, museums, archives, sperm banks, fertility clinics, and forensic DNA collections."
  - "But after the tissue has been properly excised, its use without the patient's consent may be permitted under federal research regulations, if the patient's identity is unknown or adequately obscured."
  - "Investigators and universities have argued that recognizing property rights in excised tissue would threaten their ability to use stored tissue samples effectively."

ⓘ Prior to this lesson, students have annotated and recorded notes on all their sources; they do not need to read every source closely again but can skim through for key evidence and details associated with the chosen inquiry question. Consider modeling how to skim if students struggle with this skill.

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ⓘ The source "Body of Research—Ownership and Use of Human Tissue" is used to model how to find evidence related to specific inquiry questions. Feel free to use any source to model this skill.

Instruct students to look at their individual Research Frames and follow the first three steps of the research analysis process by choosing one inquiry path to focus on, circling inquiry questions, and finally choosing one focus inquiry question. Remind students to circle questions within the inquiry path that led to relevant and useful research.

- Students look at their individual Research Frames and choose a rich inquiry path to focus on, circle inquiry question(s) within the path, and choose one focus inquiry question.

ⓘ Again, students can choose the inquiry path question itself to guide their research analysis. It depends on how many inquiry questions were circled within one inquiry path. See the alternative to step 3 in the research analysis process above.

ⓘ Instruct students to use highlighters to highlight evidence and details that answer the chosen inquiry question. Remind students they are looking for how the multiple pieces of research answer the chosen inquiry question.

ⓘ Circulate while students are working to monitor their progress.

ⓘ **Differentiation Consideration:** If students struggle with the analysis process, consider modeling with an individual student's chosen inquiry question to highlight evidence and details that answer the question.

Activity 4: Synthesizing Research and Lesson Assessment 25%

Introduce students to the Forming Evidence-Based Claims Tool, which is used to synthesize (combine) the highlighted evidence for their focus inquiry question. Explain to students that it is important to think about how the pieces of research connect, and what the research says about the focus inquiry question. Explain that this work helps students develop a deeper understanding of the research itself and its connections to the problem-based question. Inform students that this work is the foundation for developing a perspective about their problem-based question in subsequent lessons.

- Students listen.

ⓘ Consider reminding students of the following definition: *synthesize* means "to combine into a single or unified entity."

Distribute at least six copies of the Forming Evidence-Based Claims Tool to all students.

- Students examine the Forming Evidence-Based Claims Tool.

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Display a Model Forming Evidence-Based Claims Tool for all students to see. Model for students how to complete the top portion of the tool by writing the model source numbers, 7 and 4, and the model Inquiry Question, "Who owns tissue, cells and organs and DNA?"

- Students follow along with the modeling.

Instruct students to complete the top portion of their blank Forming Evidence-Based Claims Tool, writing their chosen inquiry question and the numbers of the sources they analyzed in the previous activity.

- Students complete the top portion of their blank Forming Evidence-Based Claims Tool.

ⓘ The source numbers were labeled on the Potential Sources Tools and the Taking Notes Tools when students independently searched in 10.3.2 Lessons 7–9. These tools were introduced in 10.3.2 Lessons 3–5.

Model for students how to select details from the highlighted research analysis to complete the "Selecting Details" portion of the Forming Evidence-Based Claims Tool. Show students several highlighted pieces of evidence from Sources 7 and 4. Explain to students that they should choose the most important evidence that answers the focus inquiry question. Model for students how to choose the most important evidence from the highlighted evidence. Write these details on the Model Forming Evidence-Based Claims Tool for students to see. Explain to students that these specific examples all have to do with the ownership of tissue. These should include the following:

- "Courts found that state law provided little basis for granting patients a property interest in their voluntarily donated, excised tissue" (Source 7).
- "If left unregulated and to the whims of [donors], these highly prized biological materials would become nothing more than chattel going to the highest bidder" (Source 4).
- "As it stands now, tissue banks appear to have de facto ownership over sample inventories and the right to use them as they wish" (Source 4).

ⓘ Model Source 7 is "Body of Research—Ownership and Use of Human Tissue" and model Source 4 is "Tissue Banks Trigger Worry About Ownership Issues."

- Students listen and follow along with the model.

ⓘ The sources "Body of Research—Ownership and Use of Human Tissue" and "Tissue Banks Trigger Worry About Ownership Issues" are used in the Model Forming Evidence-Based Claims Tool. Feel free to use any source to model using the Forming Evidence-Based Claims Tool.

Instruct students to analyze the highlighted evidence from their research and select the most important details to answer their chosen inquiry question. Instruct students to write the selected details in the "Selecting Details" section of the tool. Remind students to write the source's number on the reference line so they do not separate the resource from the evidence.

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- Students analyze the highlighted evidence from their research and write the most important details on the Forming Evidence-Based Claims Tool.

ⓘ Circulate and monitor student progress during this guided practice.

Model for students how to complete the "Analyzing and Connecting Details" section of the tool. Ask students to consider what the details say about the chosen inquiry question, and the connections that can be made among the details.

Model this thinking and write the following on the Model Forming Evidence-Based Claims Tool in the "Analyzing and Connecting Details" section for students to see: "These details suggest that it is not the patient but the tissue banks that control human tissue samples. Although there have been court cases regarding who owns human tissue, it would seem like it is not entirely decided at this point who should have the final say over tissue. Scientists and researchers are definitely against having individuals control their own tissue samples."

- Students follow along with the modeling.

Instruct students to practice on their own Forming Evidence-Based Claims Tool by thinking about their details and how they are connected in light of their chosen inquiry question. Instruct students to write their thinking in the "Analyzing and Connecting Details" section on the Forming Evidence-Based Claims Tool.

- Students make connections between the important details and write these connections in the "Analyzing and Connecting Details" section on the tool.

Model for students how to develop a claim that answers the chosen inquiry question by completing the "Making a Claim" section of the Forming Evidence-Based Claims Tool. Ask students to think about what conclusions or answers they are developing based on their analysis. Write the following claim on the Model Forming Evidence-Based Claims Tool in the "Making a Claim" section for students to see: "Tissue banks, not individuals, have control over tissue samples."

- Students follow along with the modeling.

Instruct students to develop their own claims and write them on their tools in the "Making a Claim" section.

- Students develop a claim in the "Making a Claim" section on the tool.

Explain to students that for the previous analysis, they chose only one inquiry question within the path, or the inquiry path question itself. They can now analyze the rest of their research evidence and develop more claims about their other inquiry questions.

- Students listen.

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Instruct students to review their focused inquiry path with the circled inquiry questions, and to continue to use the Forming Evidence-Based Claims Tool to develop claims about all the circled questions. Instruct students to begin developing claims for their focus inquiry path.

- Students use the Forming Evidence-Based Claims Tool to develop claims about the circled inquiry questions within the chosen inquiry path.

ⓘ The Evidence-Based Claims Tool serves as the assessment for this lesson. Students must turn in at least two of them.

ⓘ Remind students to follow the steps of analyzing the research and the process of synthesis for each Forming Evidence-Based Claims Tool outlined in Activity 3 of this lesson.

ⓘ If students have chosen the inquiry path question itself, they should still be able to complete multiple Forming Evidence-Based Claims Tools, as they should have plenty of evidence to analyze and make a variety of claims about the inquiry path question itself. See the Model Evidence-Based Claim Tool responses at the end of the lesson for an example of this.

Instruct students to turn in two completed Forming Evidence-Based Claims Tools for assessment purposes.

- Students turn in two completed Forming Evidence-Based Claims Tools.

ⓘ Assess the completed Forming Evidence-Based Claims Tools using the Evidence-Based Claims Criteria Checklist.

Activity 5: Closing 5%

Display and distribute the homework assignment. For homework, instruct students to complete the process introduced in the lesson by organizing, analyzing, and synthesizing their research and using at least two Forming Evidence-Based Claims Tools to develop claims about all inquiry paths on the Research Frame.

- Students follow along.

ⓘ This homework requires students to take home the Research Portfolio.

Homework

Continue to complete the process introduced in the lesson by organizing, analyzing, and synthesizing your research, and using at least two Forming Evidence-Based Claims Tools to develop claims about all inquiry paths on the Research Frame.

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Name ..... Source(s) #.....

Inquiry Question:

SEARCHING FOR DETAILS

I read the sources closely and mark words and phrases that help me answer my question.

SELECTING DETAILS

I select words or phrases from my search that I think are the most important for answering my question. I write the reference next to each detail.

Detail 1 (Ref.:)	Detail 2 (Ref.:)	Detail 3 (Ref.:)

ANALYZING AND CONNECTING DETAILS

I re-read parts of the texts and think about the meaning of the details and what they tell me about my question. Then I compare the details and explain the connections I see among them.

What I think about the details and how I connect them:

MAKING A CLAIM

I state a conclusion I have come to and can support with evidence from the texts after reading them closely.

My claim that answers my inquiry question:

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FORMING EVIDENCE-BASED CLAIMS

Name Model Response **Source(s) #** 4 and 7

Inquiry Question: Who owns tissue, cells and organs and DNA?

SEARCHING FOR DETAILS

I read the sources closely and mark words and phrases that help me answer my question.

SELECTING DETAILS

I select words or phrases from my search that I think are the most important for answering my question. I write the reference next to each detail.

Detail 1 (Ref.: 7)	Detail 2 (Ref.: 4)	Detail 3 (Ref.: 4)
"courts found that state law provided little basis for granting patients a property interest in their voluntarily donated, excised tissue."	" If left unregulated and to the whims of [donors], these highly prized biological materials would become nothing more than chattel going to the highest bidder"	"As it stands now, tissue banks appear to have de facto ownership over sample inventories and the right to use them as they wish."

ANALYZING AND CONNECTING DETAILS

I re-read parts of the texts and think about the meaning of the details and what they tell me about my question. Then I compare the details and explain the connections I see among them.

What I think about the details and how I connect them:

These details suggest that it is not the patient but the tissue banks that control human tissue samples. Although there has been court cases regarding who owns human tissue, it would seem like it is not entirely decided at this point who should have the final say over tissue. Scientists and researchers are definitely against having individuals control their own tissue samples.

MAKING A CLAIM

I state a conclusion I have come to and can support with evidence from the texts after reading them closely.

My claim that answers my inquiry question:

Tissue banks, not individuals, have control over tissue samples.

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Name Model Response **Source(s) #** 5 and 6

Inquiry Question: What happens to parts of your body that are removed?

SEARCHING FOR DETAILS

I read the sources closely and mark words and phrases that help me answer my question.

SELECTING DETAILS

I select words or phrases from my search that I think are the most important for answering my question. I write the reference next to each detail.

Detail 1 (Ref.: 5)

"Patients undergoing surgery at these medical centers will be asked to sign permission forms that enable the medical center to send left-over pathology specimens to biotechnology companies."

Detail 2 (Ref.: 5)

"Whereas vital organs have a finite life span and must be transplanted within hours, tissues such skin, corneas, tendon, bone, and heart valves can be harvested later and cryopreserved. Thus, more tissues than organs are donated. A good proportion of these body parts are processed and sold for profit and become such items as bone putty and collagen."

Detail 3 (Ref.: 6)

"If you've ever had a blood test or biopsy at a hospital, that tissue was in a pipeline to research and commercialization. The result was a genetic gold rush."

ANALYZING AND CONNECTING DETAILS

I re-read parts of the texts and think about the meaning of the details and what they tell me about my question. Then I compare the details and explain the connections I see among them.

What I think about the details and how I connect them:

The details suggest that once tissue is taken from the body that is goes into tissue banks or is sent to biotechnology companies. These details also suggest that once the tissues are taken from the body and sent to a company there is a potential for them to be made into products that can be sold. In particular, the "genetic gold rush" detail suggests there is a lot of money to be made in this industry.

MAKING A CLAIM

I state a conclusion I have come to and can support with evidence from the texts after reading them closely.

My claim that answers my inquiry question:

Once tissue is removed from the body it is sent to tissue banks or biotechnology companies.

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10.3.2 Lesson 11

Introduction

In this lesson, students organize, analyze, and synthesize their claims using their Forming Evidence-Based Claims Tools from the previous lesson to develop comprehensive claims about each inquiry path in the Research Frame.

Students begin the lesson by organizing the claims they created in the previous lesson by physically arranging the Forming Evidence-Based Claims Tools according to the inquiry paths they address. Students analyze and make connections between these specific claims and the supporting evidence to develop comprehensive claims about each inquiry path. Students use Organizing Evidence-Based Claims Tools to write the comprehensive claims about each inquiry path. Students then work in small groups to peer review one Organizing Evidence-Based Claims Tool using an Evidence-Based Claims Criteria Checklist. For the lesson assessment, students synthesize the information from an Organizing Evidence-Based Claims Tool into a paragraph explaining the claim, the evidence that supports it, and how the claim supports a side of an issue from the problem-based question.

This work directly prepares students to develop and write an Evidence-Based Perspective for the End-of-Unit Assessment. Students build on the claims created in the previous lesson to develop comprehensive claims that reflect a deeper understanding of the inquiry paths and the problem-based question itself, and begin to develop a perspective on their issue. For homework, students review all of their Organizing Evidence-Based Claims Tools using the Evidence-Based Claims Criteria Checklist and, if necessary, revise their claims.

Standards

Assessed Standard(s)	
W.9-10.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

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Addressed Standard(s)	
W.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
SL.9-10.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 9–10 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively.

Assessment

Assessment(s)
Student learning in this lesson is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, using an Organizing Evidence-Based Claims Tool from the lesson. • Develop a claim about an inquiry path or your problem-based question and support it using specific evidence and details from your research. ⓘ The Quick Write will be assessed using the Evidence-Based Claims Criteria Checklist.
High Performance Response(s)
Individual student claims will vary by the individual's problem-based question. A High Performance Response should: • Develop and explain a claim about an inquiry path or the problem-based question (e.g., the legal issues that deal with patients' rights to tissue removed during surgery need to be clearly defined because doctors and researchers can profit from tissue taken during surgery. This claim was developed using multiple pieces of evidence and demonstrates a perspective that is prevalent in the sources around the issue of tissue ownership: "tissue banks appear to have de facto ownership over sample inventories"("Tissue Banks Trigger Worry About Ownership Issues")). • Provide relevant and sufficient evidence from research to support the claim (e.g., "If you've ever had a blood test or biopsy at a hospital, that tissue was in a pipeline to research and commercialization. The result was a genetic gold rush" ("My Body, My Property"); "courts found that state law provided little basis for granting patients a property interest in their voluntarily donated, excised tissue" ("Body of Research—Ownership and Use of Human Tissue")).

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Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards:	
• Standards: W.9-10.9, W.9-10.7, W.9-10.4, SL.9-10.1	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability and Research Process Check-In	2. 10%
3. Organizing and Developing Comprehensive Claims	3. 40%
4. Peer Review: Assessing Claims	4. 25%
5. Quick Write	5. 15%
6. Closing	6. 5%

Materials

- Copies of the Organizing Evidence-Based Claims Tools for each student (one point, two point and three point)
- Model Research Frame (refer to 10.3.2 Lesson 6)
- Copies of Evidence-Based Claims Criteria Checklist for each student
- Research Portfolios (refer to 10.3.2 Lesson 1)
- Student copies of Forming Evidence-Based Claims Tools (refer to 10.3.2 Lesson 10)

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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.
	Italicized text indicates a vocabulary word.
▸	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 the assessed standards for this lesson: W.9-10.9 and W.9-10.7. Explain that in this lesson, students use the Organizing Evidence-Based Claims Tool to make comprehensive claims by identifying connections between the specific claims and evidence from the previous lesson (Forming Evidence-Based Claims Tools). Students then peer review one Organizing Evidence-Based Claims Tool using the Evidence-Based Claims Criteria Checklist. Finally, students synthesize the information from an Organizing Evidence-Based Claims Tool into a written paragraph. This work directly prepares students to develop and write an Evidence-Based Perspective for the End-of-Unit Assessment.

- Students look at the agenda.

Activity 2: Homework Accountability and Research Process Check-In 10%

Return to each student the previous lesson's assessment (two completed Forming Evidence-Based Claims Tools) to make claims about one inquiry question and ask students to take out their homework from the previous lesson (use at least two Forming Evidence-Based Claims Tools to make claims about each inquiry path).

- Students examine the previous lesson's assessment and take out their homework.

Instruct students to take out the Student Research Plan and journal about their research progress and next steps in the research journal, based on the work completed in the previous lesson (Lesson 10). Instruct students to look specifically at Part 3: Organizing and Synthesizing Research, and reflect on the research activity they did in the last lesson: forming evidence-based claims about inquiry paths. Instruct students to use the language of W.9-10.7 that aligns with Part 3 of the Student Research Plan when writing their journal responses.

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- Students journal about their research progress and next steps.
- Student responses will vary by individual problem-based question. Look for students to use the language of the Student Research Plan and W.9-10.7, as well as evidence from their research process for research journal responses.

ⓘ The lesson assessment from the previous lesson required students to use two Forming Evidence-Based Claims Tools. Hand these tools back to each student with feedback. This assessment was evaluated using the Evidence-Based Claims Criteria Checklist.

ⓘ The W.9-10.7 language that applies to Part 3: Organizing and Synthesizing Research includes: "synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation."

ⓘ While students are journaling about their research progress and next steps, circulate around the room to monitor students' homework completion.

Instruct students to arrange all of their Forming Evidence-Based Claims Tools by inquiry path on their desks.

ⓘ Students should have at least six Forming Evidence-Based Claims Tools, two for each inquiry path.

ⓘ Students do not engage in pair discussion for homework accountability because they will work together on their Forming Evidence-Based Claims Tools later in the lesson.

Activity 3: Organizing and Developing Comprehensive Claims 40%

Explain that in this activity, students build on the claims-making process they started in the previous lesson by analyzing and synthesizing comprehensive claims about each inquiry path in the Research Frame. Students use the claims made in the previous lesson as a foundation to analyze and develop comprehensive claims for an entire inquiry path.

- Students listen.

Provide students with the following definition: *comprehensive* means "of large scope, covering or involving much, inclusive." Explain that in this lesson students combine the claims made in the previous lesson to create claims with a larger scope for each inquiry path. Explain that these new claims will be more global and will include multiple pieces of evidence.

ⓘ Explain to students that synthesizing multiple pieces of evidence to develop *comprehensive* claims will allow students to create stronger claims because they are demonstrating that the claim is supported by sufficient evidence. These *comprehensive* claims will provide a foundation for

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student's Evidence-Based Perspective in the End-of-Unit Assessment. In addition, developing *comprehensive* claims across multiple sources is necessary for writing the central and supporting claims of the Research-Based Argument Paper in Unit 3 of this module.

ⓘ At this point, students are making claims about their research. They will not begin to develop central claims until Unit 3, Lesson 1. For the End-of-Unit Assessment of this unit (10.3.2 Lesson 13), there are no central claims. Students just explain their developing perspective about the problem-based question.

- Students listen.

Distribute a blank Organizing Evidence-Based Claims Two Point Tool to each student. Display the Model Research Frame for students to see. Instruct students to examine the Research Frame and read Inquiry Path 2: "Who owns tissue, cells and organs and DNA?"

- Students examine the Organizing Evidence-Based Claims Two Point Tool and read Inquiry Path 2 on the Model Research Frame.

ⓘ The Model Research Frame was created in 10.3.2 Lesson 6.

Explain to students that in the previous lesson, the class developed these two model claims about this inquiry path:

- Tissue banks, not individuals, have control over tissue samples.
- Once tissue is removed from the body, it is sent to tissue banks or biotechnology companies.

- Students listen.

ⓘ The Model Forming Evidence-Based Claims Tools used in this part of the lesson are located in the previous lesson, (Lesson 10).

ⓘ The first claim was formally modeled in the previous lesson. The second claim was not formally modeled during the previous lesson, but was included as an additional example.

Explain that in this activity, students analyze and make connections between the claims they made about their inquiry questions (the work from the previous lesson). Students will organize, analyze, and make connections between the Forming Evidence-Based Claims Tools completed for each inquiry path to create a comprehensive claim on an Organizing Evidence-Based Claims Tool.

- Students listen.

Model how to complete an Organizing Evidence-Based Claims Two Point Tool based on the model inquiry path discussed above (Who owns tissue, cells and organs and DNA?). Display the tool, and explain to students that the Two Point Tool is the most appropriate one to use because, in this case, they are working with two points (claims).

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Explain to students that they can make a larger claim by connecting these two claims.

Continue modeling by writing one of the claims in the Point One section and the other in the Point Two section, and writing the supporting evidence for each point (claim).

ⓘ See the Model Organizing Evidence-Based Claims Two Point Tool at the end of the lesson.

Explain that students can connect these two claims to create a new claim, and model it. Write the new claim at the top of the tool: "The legal issues that deal with patients' rights to tissue removed during surgery need to be clearly defined because doctors and researchers can profit from tissue taken during surgery."

- Students follow along with the modeling.

Distribute blank Organizing Evidence-Based Claims Tools to each student, giving students the appropriate tool for the number of claims they have. Students should have one Organizing Evidence-Based Claims Tool for each inquiry path.

ⓘ Some students might use a Two or Three Point tool depending on how many claims they made about each inquiry path in the previous lesson. For example, if students completed three Forming Evidence-Based Claims Tools for one inquiry path, they should use a Three Point tool to connect the three claims into one comprehensive claim about the inquiry path. Remind students they may need to return to their sources if additional evidence is necessary to support their *comprehensive* claim.

Instruct students to use an Organizing Evidence-Based Claims Tool to develop a comprehensive claim about each inquiry path on their Research Frame. They should use the six Forming Evidence-Based Claims Tools they completed in the previous lesson. Remind students they have completed at least two of these tools for each inquiry path.

- Students use their Organizing Evidence-Based Claims Tools to form comprehensive claims about each inquiry path.

ⓘ Circulate around the room to monitor student progress.

ⓘ **Differentiation Consideration**: Some students may be able to use an Organizing Evidence-Based Claims Tool to complete a comprehensive claim about the problem-based question, in addition to the inquiry paths.

Activity 4: Peer Review: Assessing Claims 25%

Explain that in this activity, students assess one of their claims using the Evidence-Based Claims Criteria Checklist. Students will work in small groups to assess whether one of the claims they developed on the Organizing Evidence-Based Claims Tool is appropriately supported.

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Display and distribute the Evidence-Based Claims Criteria Checklist to all students.

- Students examine the Evidence-Based Claims Criteria Checklist.

Model how to use the Evidence-Based Claims Criteria Checklist by using it to assess the Model Organizing Evidence-Based Claims Tool created in the previous activity. Remind students of the model claim from the previous activity: "The legal issues that deal with patients' rights to tissue removed during surgery need to be clearly defined because doctors and researchers can profit from tissue taken during surgery." Read through each criterion in the "Content and Analysis" section, check the boxes that apply, and write model comments. Explain and model the following:

- I can check the first box for the "Content and Analysis" section, Clarity of the Claim, because the claim is clearly stated and understandable. *Clarity* means "the state of being clear or transparent."
- I can check the second box for the "Content and Analysis" section, Conformity to the Text, because I created the claim directly from the textual evidence and ideas I read. For example, the quote "If you've ever had a blood test or biopsy at a hospital, that tissue was in a pipeline to research and commercialization. The result was a genetic gold rush" directly supports my claim because it states what doctors do with tissue samples and the potential for large profits to be made in the biotechnology industry.
- I can check the third box for the "Content and Analysis" section, Understanding of the Topic, because my claim demonstrates sound thinking about the issue of tissue ownership and the problem-based question. The idea is not abstract and there is evidence to support it.

- Students listen and follow along with the modeling.

ⓘ Display the Evidence-Based Claims Criteria Checklist for all students to see.

ⓘ **Differentiation Consideration:** Consider pointing out to students that the word *conformity* means that the claim is based upon the text, as indicated by the phrase "directly based upon" in the checklist.

Ask students to give their assessment of the Model Organizing Evidence-Based Claims Tool for the next three sections of the Checklist: Command of Evidence, Coherence and Organization, and Thoroughness and Objectivity. Remind students to explain their thinking. Write students' thoughts on the Evidence-Based Claims Criteria Checklist that is displayed.

- Students assess the Model Organizing Evidence-Based Claims Tool as a whole class, using the next three sections of the Evidence-Based Claims Criteria Checklist as a guide**.**

- Student responses may include:
  - Command of Evidence: The claim has specific evidence supporting it, as demonstrated by the text quotes on the tool itself. Each piece of evidence can be used to directly support the claim. For example, the quote "As it stands now, tissue banks appear to have de facto

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ownership over sample inventories and the right to use them as they wish" shows that researchers have control over tissue samples and can do whatever they want with the samples.

- Coherence and Organization: The specific points on the tool group the evidence; the evidence is easy to understand and follows a logical pattern, directly supporting each point and laying a clear foundation for the claim itself.
- Thoroughness and Objectivity: There are eight quotes, and each quote aims to support the overall claim and presents my perspective of the problem-based question. For example, the following quote from "My body, my property" demonstrates exactly what is possible for doctors to do with tissue samples they obtain from patients: "But before Moore's doctor undertook the surgery, he realized Moore's tissue had unique properties and began negotiating with a biotechnology company to market Moore's cells without his knowledge or consent" (Andrews, par. 4).

ⓘ **Differentiation Consideration:** If students struggle with responses for Thoroughness and Objectivity, consider providing the following definitions: *thoroughness* means "complete; attentive to detail and accuracy" and *objectivity* means "the state or quality of not being influenced by personal feelings or prejudice." Students will encounter the term *objective tone* in the next unit, Unit 3, when learning how to write objectively about research.

Instruct students to transition into small groups.

- Students form small groups.

ⓘ Place students in heterogeneous groups of four to five that will remain consistent throughout the module. Consider forming groups ahead of time to maximize the range of different research topics and questions within each group. The goal of these groups is to create small communities of inquiry/research teams that provide support and accountability to each other. Students should know about their teammates' topics, research questions, central claims, etc. Students should share claims and evidence that arise from their individual inquiry and learn from each other's research processes, which they may use to potentially refine their own inquiry topics and questions.

Explain to students that their discussions should continue the work of collaborative discussion outlined in SL.9-10.1, to which students were previously introduced. Remind students these discussion strategies have been taught in previous modules.

ⓘ Encourage students to keep in mind the Module Performance Assessment as they practice the skills inherent in the Speaking and Listening Standards during this discussion activity. Remind students

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that they will present their research orally at the end of the module and that this activity provides an opportunity to begin preparing for the assessment presentation.

Explain to students that for this activity, each student gives one Organizing Evidence-Based Claims Tool to a peer in the small group to review using the Criteria Checklist. Each student should have one tool to review.

- Students exchange Organizing Evidence-Based Claims Tools with a peer within their group, and review them using the Evidence-Based Claims Criteria Checklist.

Direct students to return the tool they reviewed to their peer once the review is complete.

Activity 5: Quick Write 15%

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

Develop a claim about an inquiry path or your problem-based question and support it using specific evidence and details from your research.

Instruct students to develop their written response from the Organizing Evidence-Based Claims Tools. Remind students to use the Evidence-Based Claims Criteria Checklist to guide their response. Remind students to practice the skills outlined in W.9-10.4, to which they were introduced in Module 10.1.3 Lesson 8.

ⓘ If necessary, consider reviewing the components of W.9-10.4, which include producing clear, coherent writing that employs organization and style appropriate to the task, purpose, and audience.

- Students listen and read the Quick Write prompt.

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

Transition to the independent Quick Write.

- Students independently answer the prompt, using the Organizing Evidence-Based Claims Tools and the Evidence-Based Claims Criteria Checklist to guide their responses.

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

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Activity 6: Closing 5%

Display and distribute the homework assignment. For homework, instruct students to review all of their Organizing Evidence-Based Claims Tools using the Evidence-Based Claims Criteria Checklist and, if necessary, revise their claims.

ⓘ Remind students that revising the Organizing Evidence-Based Claims Tool might lead to a final round of research and analysis of annotated sources and Taking Notes Tools to find the most relevant and useful evidence possible.

- Students follow along.

Homework

Review all of the Organizing Evidence-Based Claims Tools using the Evidence-Based Claims Criteria Checklist and, if necessary, revise your claims.

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Name ..... Inquiry Path .....

CLAIM: .....

A Supporting Evidence	B Supporting Evidence	C Supporting Evidence
(Reference:)	(Reference:)	(Reference:)
D Supporting Evidence	**E Supporting Evidence**	**F Supporting Evidence**
(Reference:)	(Reference:)	(Reference:)

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ORGANIZING EVIDENCE-BASED CLAIMS

Name ..... Inquiry Path .....

CLAIM:

Point 1		Point 2	
A Supporting Evidence	B Supporting Evidence	A Supporting Evidence	B Supporting Evidence
(Reference:)	(Reference:)	(Reference:)	(Reference:)
C Supporting Evidence	D Supporting Evidence	C Supporting Evidence	D Supporting Evidence
(Reference:)	(Reference:)	(Reference:)	(Reference:)

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ORGANIZING EVIDENCE-BASED CLAIMS

Name ..... Inquiry Path .....

CLAIM:		
Point 1	Point 2	Point 3
A Supporting Evidence (Reference:)	A Supporting Evidence (Reference:)	A Supporting Evidence (Reference:)
B Supporting Evidence (Reference:)	B Supporting Evidence (Reference:)	B Supporting Evidence (Reference:)
C Supporting Evidence (Reference:)	C Supporting Evidence (Reference:)	C Supporting Evidence (Reference:)

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ORGANIZING EVIDENCE-BASED CLAIMS

Name Model Response **Inquiry Path** Who owns tissue, cells, organs, and DNA?

CLAIM: The legal issues that deal with patients' rights to tissue removed during surgery need to be clearly defined because doctors and researchers can profit from tissue taken during surgery.

Point 1 Tissue banks, not individuals, have control over tissue samples.		**Point 2** Once tissue is removed from the body it is sent to tissue banks or biotechnology companies.	
A Supporting Evidence "courts found that state law provided little basis for granting patients a property interest in their voluntarily donated, excised tissue." (Reference: 7)	**B Supporting Evidence** " If left unregulated and to the whims of [donors], these highly prized biological materials would become nothing more than chattel going to the highest bidder" (Reference: 4)	**A Supporting Evidence** "Patients undergoing surgery at these medical centers will be asked to sign permission forms that enable the medical center to send left-over pathology specimens to biotechnology companies." (Reference: 5)	**B Supporting Evidence** "Whereas vital organs have a finite life span and must be transplanted within hours, tissues such skin, corneas, tendon, bone, and heart valves can be harvested later and cryopreserved. Thus, more tissues than organs are donated. A good proportion of these body parts are processed and sold for profit and become such items as bone putty and collagen." (Reference: 5)
C Supporting Evidence "As it stands now, tissue banks appear to have de facto ownership over sample inventories and the right to use them as they wish." (Reference: 4)	**D Supporting Evidence** "Catalona asked his patient-donors to write to Washington University requesting that their tissue samples be sent to his new place of employment. Washington University refused to send them, and a dispute arose about the patients' right to control the tissue." (Reference: 7)	**C Supporting Evidence** "If you've ever had a blood test or biopsy at a hospital, that tissue was in a pipeline to research and commercialization. The result was a genetic gold rush. " (Reference: 6)	**D Supporting Evidence** "But before Moore's doctor undertook the surgery, he realized Moore's tissue had unique properties and began negotiating with a biotechnology company to market Moore's cells without his knowledge or consent." (Reference: 6)

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EVIDENCE-BASED CLAIMS CRITERIA CHECKLIST		✓	COMMENTS
I. CONTENT AND ANALYSIS ***An EBC is a clearly stated inference that arises from reading texts closely.***	**Clarity of the Claim:** States a conclusion that you have come to after reading and that you want others to think about.	☐	
	Conformity to the Text: Is based upon and linked to the ideas and details you have read.	☐	
	Understanding of the Topic: Demonstrates knowledge of and sound thinking about a text or topic that matters to you and others.	☐	
II. COMMAND OF EVIDENCE ***An EBC is supported by specific textual evidence and developed through valid reasoning.***	**Reasoning :** All parts of the claim are supported by specific evidence you can point to in the text(s).	☐	
	Use and Integration of Evidence: Uses direct quotations and examples from the text(s) to explain and prove its conclusion.	☐	
	Thoroughness and Objectivity: Is explained thoroughly and distinguishes your claim from other possible positions.	☐	
III. COHERENCE AND ORGANIZATION ***An EBC and its support are coherently organized into a unified explanation.***	**Relationship to Context:** States where your claim is coming from and why you think it is important.	☐	
	Relationships among Parts: Groups and presents supporting evidence in a clear way that helps others understand your claim.	☐	
	Relationship to Other Claims: Can be linked with other claims to make an argument.	☐	
IV. CONTROL OF LANGUAGE AND CONVENTIONS ***An EBC is communicated clearly and precisely, with responsible use/ citation of supporting evidence.***	**Clarity of Communication:** Is clearly and precisely stated, so that others understand your thinking.	☐	
	Responsible Use of Evidence: Quotes from the text accurately.	☐	

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10.3.2 Lesson 12

Introduction

In this lesson, students choose one claim from the previous lesson and form a counterclaim in opposition to that claim.

Students choose a claim they crafted in the previous lesson and decide through discussion with a classmate what kind of counterclaim would be most effective to counter the original claim. Students identify evidence to support their counter claims and record that information on the Forming Counterclaims Tool before engaging in a peer review. Students use the Evidence-Based Claims Criteria Checklist to evaluate a peer's counterclaim. The assessment in this lesson is a Quick Write prompt: Develop a counterclaim opposing a claim from the previous lesson and support it using specific evidence and details from your research. Reevaluate the original claim based on the counterclaim and evaluate whether the original claim should be revised.

For homework, students review all of their Organizing Evidence-Based Claims Tools and create an additional counterclaim. Students revise their original claims, if necessary, based on the insight from their counterclaims, to develop stronger claims and prepare students for the next lesson's End-of-Unit Assessment.

Standards

Assessed Standard(s)	
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
Addressed Standard(s)	
W.9-10.1.b	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. Explore and inquire into areas of interest to formulate an argument. b. Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns.

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SL.9-10.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 9–10 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively.

Assessment

Assessment(s)
Student learning in this lesson is assessed via a Quick Write. Students respond to the following prompt, using evidence from their research. • Develop a counterclaim opposing a claim from the previous lesson and support it using specific evidence and details from your research. Reevaluate the original claim based on the counterclaim and evaluate whether the original claim should be revised.
High Performance Response(s)
A High Performance Response should: • Articulate a counterclaim that provides an alternate perspective to the original claim (e.g., The legal issues associated with removed tissue should be defined to support doctors making a profit because it will improve research.). • Provide sufficient evidence to support the counterclaim (e.g., "Although it is true that the patients have contributed 'raw materials' necessary for development of the cell line, it is the investigators, not the patients whose intellectual contributions lead to the creation of value." (Truog, Kesselheim, and Joffe, p. 38)). • Briefly evaluate the original claim by discussing the counterclaim and determine if the original claim should be revised or if the evidence and reasoning is sufficient (e.g., After reviewing the evidence for the counterclaim and looking at my original claim, I believe that my original claim is still strong in light of the counterclaim.). ⓘ See Model Forming Counterclaims Tool for a detailed model student response. ⓘ Individual student counterclaims will vary by the individual's problem-based question.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*

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Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text:	
• Standards: W.9-10.7, W.9-10.1.b, SL.9-10.1	
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 10%
2. Homework Accountability and Research Process Check-In	2. 10%
3. Developing Counterclaims	3. 40%
4. Peer Review: Assessing Counterclaims	4. 25%
5. Quick Write	5. 10%
6. Closing	6. 5%

Materials

- Student copies of the 10.3 Common Core Learning Standards Tool (refer to 10.3.2 Lesson 1)
- Research Portfolios (refer to 10.3.2 Lesson 1)
- Copies of the Forming Counterclaims Tool for each student (two per student)
- Student copies of the Evidence-Based Claims Criteria Checklist (refer to 10.3.2 Lesson 11)

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.
	Italicized text indicates a vocabulary word.

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▸	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 the assessed standard for this lesson: W.9-10.7. Explain that in this lesson, students continue to evaluate and strengthen their claims by learning how to craft counterclaims. As in the previous lesson, students participate in a peer review discussion to assess their counterclaims and students articulate a counterclaim for the lesson assessment.

- ▸ Students look at the agenda.

Distribute or ask students to take out their copies of the 10.3 Common Core Learning Standards Tool. Inform students that in this lesson they begin to work with a new standard: W.9-10.1.b. Ask students to individually read W.9-10.1.b on their tools and assess their familiarity with and mastery of the standard.

- ▸ Students read and assess their understanding of standard W.9-10.1.b.

Instruct students to talk in pairs about what they think the standards means. Lead a brief discussion about the standard.

- 🗨 Student responses should include:
  - Develop claims and counterclaims with evidence.
  - Discuss the strengths and shortcomings of each claim and counterclaim.

Explain to students that the purpose of this lesson is to deepen their understanding of claims and counterclaims.

Activity 2: Homework Accountability and Research Check-In 10%

Return to each student their lesson assessment from the previous lesson (Develop a claim about an inquiry path or your problem-based question and support it using specific evidence and details from your research). Instruct students to take out their homework from the previous lesson (Review all of the Organizing Evidence-Based Claims Tools using the Evidence-Based Claims Criteria Checklist).

- ▸ Students examine the previous lesson's assessment and take out their homework.

Instruct students to take out the Student Research Plan and journal about their research progress and next steps in the research journal, based on the work completed in the previous lesson (Lesson 11). Instruct students to look specifically at Part 3: Organizing and Synthesizing Research, and reflect on the research activity they did in the last lesson: making an evidence-based claim about an inquiry path or

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problem based question. Instruct students to use the language of W.9-10.7 as it aligns to Part 3 of the Student Research Plan.

- Students journal about their research progress and next steps.
- Student responses will vary based on their individual research questions/problems and research conducted. Students should use the language of the Student Research Plan and evidence from their research process for research journal responses.

ⓘ The W.9-10.7 language that aligns to Part 3: Organizing and Synthesizing Research includes "synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation."

ⓘ While students are journaling about their research progress and next steps, circulate around the room to monitor students' homework completion.

ⓘ Students will use the previous lesson's homework in the next activity.

ⓘ The research journal was started in 10.3.2 Lesson 2 and will be completed in this lesson.

Activity 3: Developing Counterclaims 40%

Explain to students that along with making claims to support their argument they must also acknowledge counterclaims that oppose their claims. Creating a counterclaim to a claim provides a dialogue around an issue and acknowledges where there may be weaknesses in one's own perspective. Crafting counterclaims is an opportunity to identify areas of improvement as well as acknowledge the multiple claims that can come from any problem-based question.

ⓘ Consider reminding students of their work with counterclaims in 10.3.1 Lessons 13 and 14.

- Students listen.

Instruct students to take out the claim they wrote for the assessment from the previous lesson. Explain to students that there are a variety of ways of crafting a counterclaim. Display and distribute the Forming Counterclaims Tool and instruct students to write their original claims on the tool.

ⓘ This is the claim from the previous lesson: The legal issues that deal with patients' rights to tissue removed during surgery need to be clearly defined because doctors and researchers can profit from tissue taken during surgery.

- Students examine the tool and copy their original claims onto the tool.

Explain and model the various ways that one might respond to an argument that emerges from a different perspective. It is important to consider a variety of possible counterclaims, though some counterclaims are more effective than others. Model for students what types of counterclaim are effective:

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- An effective counterclaim may explain why a claim is not relevant or *compelling*. For example, the claim "The legal issues that deal with patients' rights to tissue removed during surgery need to be clearly defined because doctors and researchers can profit from tissue taken during surgery" is not relevant because it does not directly answer the problem-based question. It is also not a compelling claim because doctors do a lot of work and should be compensated for their research.

ⓘ Remind students that *compelling* has been defined in 10.3.2 Lesson 5.

- An effective counterclaim may explore the *limitations* of the claim. The model claim does not fully address the problem-based question because it does not cover what the legal issues are and the role of the patient when it comes to profiting from tissue ownership.

ⓘ Explain to students that *limitations* are "real or imaginary points beyond which a person or thing cannot go." In the context of argument, limitations may be points the author does not consider or does not develop fully or effectively.

- An effective counterclaim may offer opposing evidence that is both sufficient and relevant to the issue and from a credible source. The statement "Usually these tissues are studied in-house as a means to aid in diagnosis, and often the tissue is shared with researchers from other departments and hospitals" supports an alternate perspective to the original claim that doctors always use tissue samples to make profits. This contrasts with the evidence for the original claim, which states that "Patients undergoing surgery at these medical centers will be asked to sign permission forms that enable the medical center to send left-over pathology specimens to biotechnology companies."

ⓘ Remind students that writing a claim and a counterclaim require the same process, but require students to approach the issue from an opposite or divergent perspective. Using relevant and sufficient evidence is as important in writing a counterclaim as it is in writing a claim.

- An effective counterclaim may identify poor reasoning within the claim and a lack of logical evidence to support the claim. The original claim uses this evidence: "courts found that state law provided little basis for granting patients a property interest in their voluntarily donated, excised tissue," but this evidence does not directly support the larger comprehensive claim because it does not mention anything about doctors profiting from tissue samples.

  - Students listen and follow along with the modeling.

Instruct students to Turn-and-Talk in pairs about possible counterclaims to their original claim as well as what type of counterclaim approach would be effective for this claim

- Students Turn-and-Talk to discuss a potential counterclaim.

- Individual student responses will vary based on individual problem-based questions. A student response may include: My original claim was, "The legal issues that deal with patients' rights to tissue removed during surgery need to be clearly defined because doctors and researchers can profit from tissue taken during surgery." I think a good counterclaim would be, "The legal issues

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that deal with removed tissue should be defined to support doctors making profits because it will improve research."

Instruct students to copy their potential counterclaim onto the Forming Counterclaims Tool. Explain to students that, like any claim, this is subject to revision and review based on the evidence gathered. Direct students to the "Evidence" portion of the Forming Counterclaims Tool. Explain to students that this portion of the tool will be used to record evidence from their research in order to develop and support their counterclaim fairly. Model for students a potential piece of evidence to support a model counterclaim.

- If my counterclaim is, "The legal issues that deal with patients' rights to tissue removed during surgery need to be clearly defined because doctors and researchers can profit from tissue taken during surgery," I will review my research articles and identify evidence that supports this perspective. For example, the following evidence supports my counterclaim: "Although it is true that the patients have contributed 'raw materials' necessary for development of the cell line, it is the investigators, not the patients, whose intellectual contributions lead to the creation of value."
    - Students follow along with the modeling.

Instruct students to work on their Forming Counterclaims Tools, examining their research sources for evidence to support their counterclaim. Remind students that their command of evidence should also reflect the type of counterclaim they are crafting in response to the claim made in the previous lesson.

- Students work independently on the Forming Counterclaims Tool.

ⓘ To support students' understanding, consider additional modeling on how to choose the most effective evidence for the type of counterclaim they formulated.

ⓘ Circulate around the room to monitor student progress.

Instruct students to look at the bottom portion of the Forming Counterclaims Tool. Explain to students that, after identifying supporting evidence for their counterclaims, they should briefly evaluate their original claim based on the counterclaim. Explain to students that the original claim may look weaker in light of the counterclaim, or the original claim may still be strong regardless of the alternate perspective. It may be necessary to improve the original claim if the counterclaim casts doubt on the original claim. Model for students an evaluation of an original claim based on a counterclaim:

- After reviewing the evidence for the counterclaim and looking at my original claim, I believe that my original claim is still strong. Forming this counterclaim made me realize that I should rely on the evidence from my sources, because the evidence more clearly supports my claim than the counterclaim. It may be helpful to define if patients or researchers or no one should profit from tissue samples in my original claim.
    - Students follow along with the modeling.

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Instruct students to complete the Evaluation of the Original Claim portion of the Forming Counterclaims Tool.

- Students complete the final portion of the tool.

Activity 4: Peer Review: Assessing Counterclaims 25%

Distribute the Evidence-Based Claims Criteria Checklist to all students.

- Students examine the Evidence-Based Claims Criteria Checklist.

ⓘ Remind students they have used the Evidence-Based Claims Criteria Checklist in the previous lesson to assess their claims.

Instruct students to form small groups. They will work in their groups to assess if their counterclaim on the Forming Counterclaims Tool is appropriately supported.

- Students form small groups.

ⓘ Place students in heterogeneous groups of four to five that will remain consistent throughout the module. Consider forming groups ahead of time to maximize the range of different research topics and questions within each group. The goal of these groups is to create small communities of inquiry/research teams that provide support and accountability to each other. Students should know about their teammates' topics, research questions, central claims, etc. Students should share claims and evidence that arise from their individual inquiry and learn from each other's research processes, which they may use to potentially refine their own inquiry topics and questions.

Explain to students that their discussions should continue the work of collaborative discussion outlined in SL.9-10.1, to which students were previously introduced. Remind students these discussion strategies have been taught in previous modules.

ⓘ Encourage students to keep in mind the Module Performance Assessment as they practice the skills inherent in the Speaking and Listening Standards during this discussion activity. Remind students that they will present their research orally at the end of the module and that this activity provides an opportunity to begin preparing for the assessment presentation.

Instruct students to give one of their Forming Counterclaims Tools to a peer in the small group, so that each student has one Forming Counterclaims Tool to review. Each student in the group should review a peer's Forming Counterclaims Tool using the Criteria Checklist.

- Students exchange Forming Counterclaims Tools with a peer within their group, and review them with the group using the Evidence-Based Claims Criteria Checklist.

Direct students to return the Forming Counterclaims Tool to their peers once the review is complete.

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Activity 5: Quick Write 10%

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

Develop a counterclaim opposing your claim from the previous lesson and support it using specific evidence and details from your research. Reevaluate the original claim based on the counterclaim and evaluate whether the original claim should be revised.

Instruct students to develop their written response from the Forming Counterclaims Tool. Remind students to use the Evidence-Based Claims Criteria Checklist to guide their response.

- Students listen and read the Quick Write prompt.

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

Transition to the independent Quick Write.

- Students independently answer the prompt, using the Forming Counterclaims Tool and the Evidence-Based Claims Criteria Checklist to guide their response.

- 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 review all of their Organizing Evidence-Based Claims Tools and create an additional counterclaim using the Forming Counterclaims Tool. Instruct students to evaluate their original claims based on the insight from their counterclaim work, to develop stronger claims and prepare students for the next lesson's End-of-Unit Assessment.

ⓘ Remind students that revising the Organizing Evidence-Based Claims Tool(s) may lead to a final round of research and analysis of annotated sources and Taking Notes Tools to find the most relevant and useful evidence possible.

- Students follow along.

Homework

Review all of the Organizing Evidence-Based Claims Tools and draft another counterclaim using the Forming Counterclaims Tool. Based on the counterclaim work, evaluate an original claim to prepare for the next lesson's End-of-Unit Assessment.

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Forming Counterclaims Tool

Name:		Class:		Date:	

Original Claim:	Counterclaim:
	Evidence (ref. 3):
	Evidence (ref. 4):
Evaluation of the Original Claim:	

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Model Forming Counterclaims Tool

Name:		Class:		Date:	

Original Claim: The legal issues that deal with patients' rights to tissue removed during surgery need to be clearly defined because doctors and researchers can profit from tissue taken during surgery.	Counterclaim: The legal issues associated with removed tissue should be defined to support doctors making a profit because it will improve research.
	Evidence (ref. 3): "Although it is true that the patients have contributed 'raw materials' necessary for development of the cell line, it is the investigators, not the patients whose intellectual contributions lead to the creation of value." (Truog, Kesselheim, and Joffe, p. 38)
	Evidence (ref. 4): "The deciding judge agreed, writing in his March 31 opinion that the donors had relinquished their rights to the samples: "Medical research can only advance if access to [tissue samples] is not thwarted by private agendas." (Schmidt, p. 1174)
Evaluation of the Original Claim: After reviewing the evidence for the counterclaim and looking at my original claim, I believe that my original claim is still strong in light of the counterclaim. Forming this counterclaim made me realize that I should rely on the evidence from my sources, which more clearly supports my claim than the counterclaim. It may be helpful to define if patients or researchers or no one should profit from tissue samples in my original claim.	

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10.3.2 Lesson 13

Introduction

In this final lesson of the unit, the End-of-Unit Assessment, students complete a final review of the Research Portfolio and write an Evidence-Based Perspective that synthesizes the evidence collection and research work completed in this unit. This lesson asks students to apply standards W.9-10.7 and W.9-10.9 as they craft a short response that displays understanding of their problem-based question as well as their ability to draw evidence from their sources to support research analysis.

Students begin the lesson by finalizing the Research Portfolio for assessment purposes. Students review all of the Organizing Evidence-Based Claims Tools from the previous lessons and discuss their developing perspectives on their problem-based questions in small groups. Next, students write an Evidence-Based Perspective (a one-page synthesis) using the Organizing Evidence-Based Claims Tools, supporting their perspectives with relevant evidence from the research. Students submit the finalized Research Portfolio and the Evidence-Based Perspective for assessment purposes. The Evidence-Based Perspective is assessed using a rubric based on the Research Portfolio content. For homework, students complete a vocabulary activity using the vocabulary journal work from the unit.

Standards

Assessed Standard(s)	
W.9-10.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
W.9-10.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
Addressed Standard(s)	
W.9-10.1	Write arguments to support claims in the analysis of substantive topics or text, using valid reasoning and relevant and sufficient evidence. Explore and inquire into areas of interest to formulate an argument.
SL.9-10.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 9–10 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively.

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Assessment

Assessment(s)
Student learning is assessed via an End-of-Unit Assessment that consists of the elements below. • Completed Research Portfolio: Students submit a completed Research Portfolio with the four sections organized including 1. Defining an Area of Investigation, 2. Gathering and Analyzing Information, 3. Drawing Conclusions, 4. Discarded Material. • Evidence-Based Perspective: Students write a one-page synthesis that articulates a specific perspective that is derived from their research. Students draw on the research outcomes, as developed in the Organizing Evidence-Based Claims Tools to express their perspective. • Research Journal: This item is located in the Research Portfolio. ⓘ This assessment will be evaluated using the 10.3.2 End-of-Unit Evidence-Based Perspective Rubric.
High Performance Response(s)
A High Performance Response should: • Meet the requirements of level 4 on the 10.3.2 End-of-Unit Evidence-Based Perspective Rubric located at the end of the lesson. ⓘ A sample model student response is at the end of this lesson.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*
Vocabulary to teach (may include direct word work and/or questions)
• None.*

*In their research and reading, students will encounter domain-specific vocabulary related to their individual research questions/problems. Students will track some of this vocabulary in their vocabulary journals when conducting independent searches during class and for homework.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards: • Standards: W.9-10.7, W.9-10.9, W.9-10.1, SL.9-10.1	

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Learning Sequence:	
1. Introduction of Lesson Agenda	1. 10%
2. Homework Accountability and Research Check-In	2. 25%
3. Developing an Evidence-Based Perspective	3. 30%
4. 10.3.2 End-of-Unit Assessment: Evidence-Based Perspective	4. 30%
5. Closing	5. 5%

Materials

- Student copies of the Organizing Evidence-Based Claims Tools (refer to 10.3.2 Lesson 11)
- Research Portfolios (refer to 10.3.2 Lesson 1)
- Copies of the 10.3.2 End-of-Unit Assessment for each student
- Copies of the 10.3.2 End-of-Unit Evidence-Based Perspective Rubric for each student
- Student copies of the 10.3 Common Core Learning Standards Tool (refer to 10.3.2 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.
	Italicized text indicates a vocabulary word.
▸	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 sharing the assessed standards for this lesson: W.9-10.7, W.9-10.9. In this lesson, students finalize the Research Portfolio for assessment purposes. Students then discuss their developing perspectives concerning their problem-based questions, using the Organizing Evidence-Based Claims Tools from the previous lesson. Finally, students write an Evidence-Based Perspective (a one-page synthesis) using the Organizing Evidence-Based Claims Tools developed in the previous lesson and supporting the perspective with relevant evidence from the research.

- ▸ Students look at the agenda.

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Distribute or ask students to take out their copies of the 10.3 Common Core Learning Standards Tool. Inform students that in this lesson they begin to work with new standard: W.9-10.1. Ask students to individually read W.9-10.1 on their tools and assess their familiarity with and mastery of the standard.

- Students read and assess their understanding of standard W.9-10.1.

Instruct students to talk in pairs about what they think the standard means. Lead a brief discussion about the standard.

- Student responses should include:
  - Write arguments to analyze issues or texts.
  - Support claims with evidence and reasoning.

Explain to students that today's work is on developing an evidence-based perspective, the first step in crafting an argument.

- Students listen.

Activity 2: Homework Accountability and Research Check-In 25%

Instruct students to take out their homework from the previous lesson (Review all of the Organizing Evidence-Based Claims Tools and draft another counterclaim using the Forming Counterclaims Tool. Based on the counterclaim work, evaluate an original claim to prepare for the next lesson's End-of-Unit Assessment).

Instruct students to Turn-and-Talk with a classmate about the counterclaims they drafted and how the counterclaim contributes to improvements of the original claim.

- Student responses may include:
  - After drafting my counterclaim about genetic ownership, I realized I had to choose better evidence to support some of my claims. My evidence did not always directly address the claims I made. For example, some of my evidence underneath the counterclaim "Humans have an inherent right to their own tissue" addressed only genetic information, so the claim was not fully supported by the evidence.
  - While researching my counterclaim, I realized that I did not incorporate all the written evidence in my original claim. For example, my claim that "Scientists should be able to pursue research that will benefit mankind" failed to include evidence from Point One about how to evaluate medical studies and their benefits. I had to expand the claim to make it more inclusive of all of the evidence.

ⓘ Consider circulating during the pair discussion to monitor students' homework completion.

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Instruct students to take out their Research Portfolios.

Inform students that later in this lesson, they will complete the last step in the Student Research Plan: Reviews and synthesizes the research to develop a written Evidence-Based Perspective (Part 3: Organizing and Synthesizing Inquiry). Instruct students to reread the Student Research Plan and use it as a guide to finalize all sections of the Research Portfolio. Instruct students to file all sources, annotated copies, notes, tools, and assessments in the Research Portfolio, except for the Organizing Evidence-Based Claims Tools from the previous homework activity, which they should keep out for now.

- Students file all sources, annotated copies, notes, tools, and assessments in the Research Portfolio.

ⓘ The Research Portfolio sections are the following: 1. Defining an Area of Investigation, 2. Gathering and Analyzing Information, 3. Drawing Conclusions, 4. Discarded Material.

Instruct students to place the Student Research Plan in the front of the portfolio. Instruct students to keep the Research Portfolio accessible because they may return to it during the rest of lesson.

Inform students that they will submit the Research Journal at the end of the lesson as part of the completed Research Portfolio.

- Students listen.

Activity 3: Developing an Evidence-Based Perspective 30%

Remind students that through the research process they learned to use questioning and develop their ideas about various sources to deepen their understanding of a research topic/problem-based question. Students conducted inquiry for exploration, not to prove an established claim about a topic. Explain to students that now they have an opportunity to look at the claims made in the previous lesson and discuss their developing perspectives about their problem-based questions.

ⓘ Consider reminding students of the following definition: *perspective* means "how one understands an issue, including his/her relationship to and analysis of the issue."

Remind students of the work completed on argument and central claim in 10.3.2 Lesson 5. Provide students with the following definitions and display them for students to see: *argument* means "the composition of precise claims about a topic, including relevant and sufficient evidence, and valid reasoning" and *central claim* means "an author or speaker's main point about an issue in an argument." Explain to students that a central claim is the foundational claim and core of an argument. It could be considered a position or thesis on a topic.

Inform students they have already begun to develop an argument by analyzing the research and developing comprehensive claims about the inquiry paths and problem-based question. This lesson's work, developing an evidence-based perspective, will help students develop a central claim that they will develop further and confirm in the following unit. Inform students that this lesson's assessment asks

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them to reflect on their current understanding of their problem-based question now that they have created claims about it.

- Students listen.

Instruct students to reflect on their claims from the previous lessons (Organizing Evidence-Based Claims Tools) using the guiding questions below. Ask students to take notes on a separate sheet of paper about each guiding question, as they reflect on the claims and the research process as a whole. Display the following guiding questions for students:

How has your understanding of the problem-based question developed or deepened as a result of the research?

Based on your claims, what ideas can you connect and what do those connections tell you about the problem-based question?

Based on your claims, what are your overall views or opinions about the problem-based question? How did the research lead you to these views or opinions?

- Students reflect on their research by writing notes about each guiding question.

Explain to students that their discussions should continue the work of collaborative discussion outlined in SL.9-10.1, to which students were previously introduced. Remind students these discussion strategies have been taught in previous modules.

ⓘ Encourage students to keep in mind the Module Performance Assessment as they practice the skills inherent in the Speaking and Listening Standards during this discussion activity. Remind students that they will present their research orally at the end of the module and that this activity provides an opportunity to begin preparing for the assessment presentation.

Instruct students to form small groups and discuss the guiding questions regarding their respective problem-based questions. Remind students to use specific evidence to support their conclusions or reflections about the research work. Additionally, remind students to take notes during the discussion for later use when writing the Evidence-Based Perspective.

- Student responses will vary based on individual student's problem-based question. Examples of student responses may include:
  - I now understand how patients' rights affect doctors as well as each patient. I found a number of historical examples of patients misunderstanding or misrepresenting doctors' actions. The establishment of patients' rights needs to respect both parties.

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- How we identify who has rights to tissues or genetic information is made much more complicated by patents and the ability to alter genetic information for certain purposes, like pest-resistant crops grown from GMOs.

ⓘ Circulate during student group discussions to monitor student progress.

ⓘ Place students in heterogeneous groups of four to five that will remain consistent throughout the module. Consider forming groups ahead of time to maximize the range of different research topics and questions within each group. The goal of these groups is to create small communities of inquiry/research teams that provide support and accountability to each other. Students should know about their teammates' topics, research questions, central claims, etc. Students should share claims and evidence that arise from their individual inquiry and learn from each other's research processes, which they may use to potentially refine their own inquiry topics and questions.

Activity 4: 10.3.2 End-of-Unit Assessment: Evidence-Based Perspective 30%

Inform students they will now complete the 10.3.2 End-of-Unit Assessment by writing about their Evidence-Based Perspective in a one-page synthesis, using their research evidence and details for support.

Instruct students to use their Organizing Evidence-Based Claims Tools from the previous lessons and their discussion notes from the previous activity to write about their developing perspectives regarding their problem-based questions. Remind students that their perspectives must be supported with evidence elicited from the research, so they should use specific research from the Research Portfolio. Remind students that the focus for this writing is to develop a perspective on the research, not to summarize all of the research outcomes. Remind students to paraphrase and quote the evidence correctly when crafting the perspective.

ⓘ Students learned how to paraphrase and quote evidence correctly in Module 10.1.

Distribute the 10.3.2 End-of-Unit Evidence-Based Perspective Rubric. Explain that the Evidence-Based Perspective Rubric should guide their writing.

- Students listen.

Transition students to writing the End-of-Unit Assessment.

- Students independently write an Evidence-Based Perspective for the End-of-Unit Assessment.
- See the High Performance Response at the beginning of the lesson.

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Activity 5: Closing 5%

Instruct students to file the Organizing Evidence-Based Claims Tools from the previous activity in Section 3 of the Research Portfolio. Instruct students to remove the vocabulary journal from the Research Portfolio, which they need to keep for their homework.

Collect the Research Portfolios.

ⓘ Make sure students have the Research Journal in the Research Portfolio for assessment purposes.

Display and distribute the homework assignment. For homework, instruct students to complete the following vocabulary activity using the vocabulary journal from this unit:

Choose three to five words or phrases from the research (sources) that were important in deepening your understanding of the problem-based question. In the first paragraph, discuss how the three to five words helped you better understand the problem-based question.

Next, choose three to five words or phrases from your vocabulary journal that assisted your understanding of the research process. In your second paragraph, describe how the three to five words enhanced your understanding of the research process.

- Students follow along.

ⓘ See a sample student response of the homework in 10.3.3 Lesson 1 (Homework Accountability).

ⓘ Students will need the Research Portfolio in Unit 3 in order to write the research paper.

Homework

Complete the following vocabulary activity using the vocabulary journal from this unit.

Choose three to five words or phrases from the research (sources) that were important in deepening your understanding of the problem-based question. In your first paragraph, discuss how the three to five words helped you better understand your problem-based question.

Next, choose three to five words or phrases from your vocabulary journal that assisted your understanding of the research process. In your second paragraph, describe how the three to five words enhanced your understanding of the research process as a whole.

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10.3.2 End-of-Unit Assessment

Evidence-Based Perspective

Your Task: Write a one-page synthesis of your personal conclusions and perspective derived from your research. Draw on your research outcomes, as developed in the Organizing Evidence-Based Claims Tools to express your perspective on your problem-based question.

Your writing will be assessed using the 10.3.2 End-of-Unit Evidence-Based Perspective Rubric.

Guidelines

Be sure to:

- Develop a perspective on the research, and not a summary of all the research outcomes.
- Support your perspective with relevant evidence from your research.
- Organize your perspective using the claims you developed on your Organizing Evidence-Based Claims Tools (based on your inquiry paths).
- Use specific research from your Research Portfolio to support your claim(s).
- Organize your ideas in a cohesive and coherent manner.
- Use precise language appropriate for your task.
- Follow the conventions of standard written English.

CCSS: W.9-10.7; W.9-10.9

Commentary on the Task:

This task measures W.9-10.7 because it demands that students:

- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem
- Narrow or broaden the inquiry when appropriate
- Synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation

This task measures W.9-10.9 because it demands that students:

- Draw evidence from literary or informational texts to support analysis, reflection, and research

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Model Evidence-Based Perspective

I became interested in learning more about tissue ownership because my mother once had surgery to remove a benign tumor. While we were reading *The Immortal Life of Henrietta Lacks*, I wondered whether my mother's cells might be in a scientist's lab somewhere, and what rights my mother or I would have to those cells if they were used for research we did not support. After I did some initial research on tissue ownership, I discovered that patients' rights to their own tissues are limited, and that many researchers and scientists are against individuals retaining ownership or control of their tissue samples.

I learned through my research that legalities of tissue ownership should be clearly defined because doctors and researchers can profit from tissue taken from patients. Tissue banks, not individuals, have control over tissue samples due to court cases that have ruled in the tissue banks' favor. In the article, "Body of Research" it was stated that "courts found that state law provided little basis for granting patients a property interest in their voluntarily donated, excised tissue." There is an argument against allowing individuals to have control over their excised tissue. According to Schmidt, "If left unregulated and to the whims of [donors], these highly prized biological materials would become nothing more than chattel going to the highest bidder." Instead, excised tissue can fall into the hands of tissue banks, which "appear to have de facto ownership over sample inventories and the right to use them as they wish." Once tissue is removed from the body, tissue banks are free to sell the tissue to biotechnology companies for profit. Patients do grant the tissue banks the rights to give or sell the leftover specimens to the biotechnology companies through permission forms. However, these tissues are not used only for medical research. In fact, according to Schmidt, "[a] good proportion of these body parts are processed and sold for profit and become such items as putty and collagen." This means that anyone's tissue can be accessed by biotechnology companies for profit.

I also think that granting researchers control of the tissues is not the answer. Granting rights to researchers can possibly incentivize them to do harm to patients and possibly lie or deceive patients, as happened with John Moore in *The Immortal Life of Henrietta Lacks*. According to Skloot, John Moore was deceived for years about his invaluable tissue while the doctor was able to retain a patent, allowing him to profit from Moore's tissue. It also allows researchers to perform research that can violate the privacy of the donors, as happened with the Havasupai Indian tribe: "[they] were outraged to find that tissues they had donated to Arizona State University for diabetes research were also used in what they viewed as potentially stigmatizing studies of schizophrenia, inbreeding, and population migration." According to Schmidt, "What's more, some genetic data obtained from publicly funded research will be posted online, making it available to insurance companies and others who would use it to the donor's detriment."

Finally, some tissues are sold already: sperm, eggs, blood, plasma, and hair can be sold, and in some cases, bone marrow can be sold as well. However, according to Park, "In a concession to the spirit of

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NOTA, however, the compensation can't be in cash; it needs to be in the form of a voucher that can be applied to things such as scholarships, education, housing or a donation to a charity." This suggests that selling tissue is an ethical problem that must be addressed. Although this market seems to be operating well for many people, it might be better if tissue could only be donated, and not sold. That would mean changing the laws so no one can legally profit from the sale of body parts or fluids of any kind. People would donate their tissues if they wanted to, without any strings attached, and researchers could only use what was donated, and not buy any tissues.

*The evidence in this High-Performance Response comes from these sources: Source #1 "A Court Allows Payment for Bone Marrow. Should People Be Able to Sell Their Parts?" by Alice Park (http://healthland.time.com/2012/07/02/a-court-allows-payment-for-bone-marrow-should-people-be-able-to-sell-their-parts/), Source #4 "Tissue Banks Trigger Worry About Ownership Issues" by Charlie Schmidt (http://www.oxfordjournals.org/), Source #5 "Human Tissue For Sale: What Are the Costs?" by Deborah Josefson (http://www.ncbi.nlm.nih.gov/pmc/), Source #6 "My Body, My Property" by Lori B. Andrews (http://chicagotribune.com/), and Source #7 "Body of Research — Ownership and Use of Human Tissue" by R. Alta Charo (http://www.nejm.org/).

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10.3.2 End-of-Unit Evidence-Based Perspective Rubric

CCSS.ELA-Literacy.W.9-10.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

CCSS.ELA-Literacy.W.9-10.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

Criteria	4 – Writing at this Level:	3 – Writing at this Level:	2 – Writing at this Level:	1 – Writing at this Level:
CCSS.ELA-Literacy.W.9-10.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem.	Clearly states a question or problem; writer provides substantial evidence of sustained research examining a question or a problem.	Includes a clear question or a problem; writer provides some evidence of sustained research in response to a question or a problem.	Includes a question or a problem; writer's research is limited and a question or a problem has a limited response.	Does not include a clear question or a problem and demonstrates almost no evidence of research.
Narrow or broaden the inquiry when appropriate.	Clearly narrows or broadens the inquiry while conducting research.	Some evidence of narrowing or broadening the inquiry while conducting research.	Demonstrates limited narrowing or broadening of inquiry while conducting research.	Conducts very little inquiry.
Synthesize multiple sources on the subject.	Successfully synthesizes multiple sources while addressing a question or a problem.	Provides some synthesis of sources while addressing a question or a problem.	Synthesis of sources is limited while addressing a question or a problem.	Does not synthesize sources or address a question or a problem.
Demonstrate understanding of the subject under investigation.	Demonstrates a deep understanding of the subject of research.	Demonstrates some understanding of the subject.	Demonstrates limited understanding of the subject.	Demonstrates vague understanding of the subject.
CCSS.ELA-Literacy.W.9-10.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.	Extensively draws evidence from the informational texts that were read; uses the information to support analysis, reflection, and research.	Draws some evidence from informational texts that were read; uses some of the information to support analysis, reflection, and research.	Draws limited evidence from informational texts that were read; analysis limited.	Does not draw evidence from informational texts.

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