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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

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| 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. |

# Assessment

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| 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

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| 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

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| Student-Facing Agenda | % of Lesson |
| **Standards:**   * Standards: W.9-10.7, W.9-10.9, W.9-10.1, SL.9-10.1 |  |
| **Learning Sequence:**   1. Introduction of Lesson Agenda 2. Homework Accountability and Research Check-In 3. Developing an Evidence-Based Perspective 4. 10.3.2 End-of-Unit Assessment: Evidence-Based Perspective 5. Closing | 1. 10% 2. 25% 3. 30% 4. 30% 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

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| 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.

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.

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 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.
  + 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.

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.

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.

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| **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 |

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 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/>).

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:** |
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| **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. |