

## 9.3.3

## Lesson 1


## Introduction

In this lesson, students are introduced to the process of drafting a research paper. Students draft, revise, and edit this research paper over the course of the entire unit. Students learn how to develop their research paper from the Evidence-Based Perspective writing assignment they completed in the previous lesson. Students determine a central claim from their **Research Frame** and Evidence Based-Perspective writing assignment and construct an outline for their research paper. Students organize their claims and supporting evidence for each claim. Students also analyze the evidence that supports each claim to complete their **Outline Tool**. Students are assessed on the central claim as well as the organization of two Evidence-Based Claims from their outline. For homework, students find an additional piece of evidence for each of their claims and analyze how this evidence further supports their claim. Then they record their evidence and analysis on the **Additional Evidence Outline Tool**.

## Standards

Assessed Standard(s)	
W.9-10.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
Addressed Standard(s)	
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.

## Assessment

Assessment(s)
<p>This learning in this lesson is captured through the Outline Tool. The tool is assessed on the strength of organization of claims and evidence to support the central claim and the analysis of the connections between evidence.</p> <p> This assessment will be evaluated using the Evidence-Based Claims Criteria Checklist.</p>
High Performance Response(s)
<p>A high performance response may include the following:</p> <ul style="list-style-type: none"> <li>• See Model Outline Tool for a high performance response.</li> </ul>

## Vocabulary

Vocabulary to provide directly (will not include extended instruction)
<ul style="list-style-type: none"> <li>• iterative (adj.) – repetitious</li> <li>• drafting (v.) – drawing up in written form</li> <li>• revising (v.) – altering something already written or printed, in order to make corrections, improve, or update</li> </ul>
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> <li>• None.*</li> </ul>

\*Students will encounter domain-specific vocabulary related to their individual research question/problem by reading, annotating, and recording notes on various sources. Students will track some of this vocabulary in their Vocabulary Journal when conducting independent searches during class and for homework.

## Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
<p><b>Standards &amp; Text:</b></p> <ul style="list-style-type: none"> <li>• Standards: W.9-10.9, W.9-10.5, W.9-10.7</li> </ul>	

Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability	2. 10%
3. Introduction to the Writing Process	3. 15%
4. Evidence Organization	4. 35%
5. Lesson Assessment	5. 30%
6. Closing	6. 5%

## Materials

- Copies of **Outline Tool** for each student
- Copies of **Additional Evidence Outline Tool** for each student
- Student copies of **Evidence-Based Claims Criteria Checklist** (refer to 9.3.2 Lesson 10)
- **Research Portfolio** (students have these)

## Learning Sequence

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

### Activity 1: Introduction of Lesson Agenda

5%

Begin by introducing the agenda and assessed standard for this lesson: W.9-10.9. Explain that in this lesson students are introduced to the writing process, a research paper, and drafting an outline using an Outline Tool. Students determine a central claim from their Research Frame and Evidence Based-Perspective writing assignment and construct an outline for their research paper. Students organize their claims and supporting evidence for each claim. Students also analyze the evidence that supports each claim to complete their Outline Tool.

- ▶ Students follow along and read the agenda.

## Activity 2: Homework Accountability

10%

Instruct students to form pairs to share their three to five vocabulary words as well as their paragraph explaining how these words helped deepen their understanding of their research question.

- ▶ Students form pairs for a Turn-and-Talk and discuss their vocabulary homework.
- 💬 Student responses will vary based on their individual research: In the article, “Think You’re Smarter than Animals? Maybe Not,” Alexandra Horowitz and Ammon Shea write about comparing “our own cognitive faculties” with animals. I didn’t know what cognitive faculties meant but because of the context I thought it might have something to do with thinking or intelligence. When I looked up the both of the words, I learned that *cognitive* means “the act or process of knowing” and *faculties* are “powers of the mind, as memory, reason, or speech.” So cognitive faculties must mean “knowing powers” or intelligence. Knowing the terms helped deepen my understanding of the comparison Horowitz and Shea are making between animal and human intelligence. Further vocabulary words I defined and recorded in my journal were *etiquette* and *replications*. Knowing the meaning of these words helped deepen my understanding of the first study present in the *New York Times* article. The authors write about the chimps using social etiquette, which means “polite social behavior.” The chimps display the etiquette by “laugh replications” and *replications* means “a copy.” Knowing these words helped reinforce my understanding that the chimps are intelligent because they want to get along socially and be polite with other monkeys.

## Activity 3: Introduction to the Writing Process

15%

Share with students that the writing process is *iterative*, much like the research process in Unit 2. Remind students that *iterative* means “repeating,” which means students will frequently reassess their work or their thinking, and improve it. In this unit students compose a formal research paper. Explain that writing is a process that takes many forms and students can accomplish it through a variety of methods. Though there are many different ways to approach the writing process, they all involve multiple drafts and revisions. Inform students they will be *drafting*, *revising*, peer reviewing, and editing throughout this unit to create a well-crafted research paper.

- ① Remind students that *drafting* is “drawing up in written form” and *revising* is “altering something already written or printed, in order to make corrections, improve, or update.” Consider asking students why they might need to revise a draft. Remind students to record the definitions of *iterative*, *drafting*, and *revising* in their Vocabulary Journals.

- Students listen.

Explain that the research paper they complete in this unit is informative and expository, and is meant to clearly present the information gathered from their research. Advise students to keep in mind that the purpose of writing an analytical research paper is to convey complex ideas, concepts, and information clearly and accurately. Explain that students must also develop a central claim and support that claim using evidence.

- ① For clarity, it may be helpful to refer to the explanation of the difference between informational and argumentative writing in the CCSS Appendix A (p. 23): “Although information is provided in both arguments and explanations, the two types of writing have different aims. Arguments seek to make people believe that something is true or to persuade people to change their beliefs or behavior. Explanations, on the other hand, start with the assumption of truthfulness and answer questions about why or how. Their aim is to make the reader understand rather than to persuade him or her to accept a certain point of view. In short, arguments are used for persuasion and explanations for clarification.”

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Explain that the Evidence-Based Perspective they developed at the end of the last unit, Unit 2, is the foundation for their research paper. Return to students their Evidence-Based Perspective written assignments as well as their Research Portfolios. Inform them that they will be using their Evidence-Based Perspective to guide the claims and evidence they will express in their paper. The Evidence-Based Perspective encompasses the personal conclusions and insights students drew from their research to help guide their writing. The research paper is a logical, well-organized and coherent synthesis of students’ research and their personal conclusions and perspectives on their research so far.

Explain that a research paper has a formal structure: introduction, body paragraphs, conclusion, and works cited page. Inform students that they will be focusing on each of these parts in lessons throughout this unit in order to produce a final research paper for the End-of-Unit Assessment.

- Students listen.

## Activity 4: Evidence Organization

**35%**

Explain that the focus of this lesson is properly organizing their evidence and claims. This gives them a clear structure to follow when they begin writing. Explain that they will use their research question to form the central claim in their research paper. Instruct students to take out their Evidence-Based Perspective writing assignment and their Research Frame, and briefly discuss in pairs the strongest or most interesting possible central claim that has emerged from their research.

- ▶ Students form pairs to discuss possible central claims for their research paper.

Distribute the Outline Tool. Instruct students to write down their chosen research question or inquiry path. Remind students that they have answered the research question in their Evidence-Based Perspective writing assignment, and they will need to distill this answer on their Outline Tool into one sentence: a central claim. For instance, if their research question was: “How does animal intelligence compare with human intelligence?” then they would write the answer to this question based on conclusions expressed in the Evidence-Based Perspective writing assignment: “Animals and humans have different kinds of intelligence, and there are many instances where animals display remarkable intelligence, but they cannot always be tested in the same way as people.”

- ▶ Students write down their research question and central claim on the Outline Tool.
- 💬 Student responses will vary depending on the research.

Explain that there are a variety of ways to organize a research paper. Explain that students should organize their claims and evidence in a logical, sequential manner that clearly supports their analysis. For instance, if a research paper is about how animal intelligence compares to human intelligence these are some claims that have been developed by research. Display the following claims for students:

- Claim: Research has shown that some animals can actually learn human language.
- Claim: Researchers can measure animal intelligence by observing qualities of intelligence that are shared by humans, but they must design their experiments considering the animal's perspective.
- Claim: Historically there has been an idea that humans are smarter than animals.

Explain to students that of these three examples, the claim about the historical ideas around animal intelligence is the most logical claim to begin with because it informs the way we think about animal intelligence today. Ask students:

### **What is the next logical claim in this sequence and why?**

- 💬 The next logical claim would be the one that measures animal intelligence because we need to measure animal intelligence before coming to the conclusion that they can learn a language or test their intelligence.

Instruct students to retrieve all of the Organizing Evidence-Based Claims Tools they have in their Research Portfolio that align with their central claim. Display some potential questions for students to guide their organization of the tools from their portfolio:

**If I have these three Organizing Evidence-Based Claims Tools, which one would be most effective at the beginning of the research paper?**

**Which one would be most effective at the end?**

**Are my Evidence-Based Claims in a logical order?**

- ▶ Students follow along and read the guiding questions.

Instruct students to physically arrange their Organizing EBC Tools on their workspace in an order that reflects where each claim would appear in the research paper.

① **Differentiation Consideration:** The organizational structure in this lesson is not meant to be prescriptive, but rather model a way to potentially organize a research paper. If students require more explicit modeling or instruction around organization of research papers, consider providing additional resources and graphic organizers to help students organize and structure their claims and evidence.

① All Organizing EBC Tools were created in 9.3.2 Lesson 11.

- ▶ Students organize their Organizing EBC Tools on their workspace.

Instruct students to do a brief Turn-and-Talk in pairs. Specifically, ask students to discuss their answers to this question:

**How does this order effectively support your central claim?**

- ▶ Students do a Turn-and-Talk in pairs.

① **Differentiation Consideration:** Students can also work with their pre-established research groups for this activity.

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Instruct student pairs to briefly share the results of their discussion. Ask students if anyone has changed their plan based on their classmate's suggestions.

Instruct students to independently copy onto their Outline Tool the order of their Evidence Based Claims and the evidence from the Organizing EBC Tools. Remind students that the purpose of this outline is to have a clear plan for their research paper and to consolidate all of their information. Instruct students to select the strongest evidence to support their claim.

- ▶ Students work independently on their Outline Tool.
- 🗨 See the Model Outline Tool for potential student responses.

Explain that the portion of the outline they have completed is the frame for the paper's introduction (which will introduce the central claim) and the body (which presents the claims and evidence that support the central claim). Instruct students to look at their first claim on the Outline Tool. Explain that they need evidence to support each claim in the body of their paper and must briefly write how this

evidence supports each claim. Inform students that this analysis is the starting point for each body paragraph.

- ▶ Students follow along.

Instruct students to form pairs to discuss their ideas about how their evidence supports the claim. Then students can complete the “analysis” portion of the Outline Tool.

- ▶ Students discuss their ideas in pairs and fill in the Outline Tool.
- 🗨 See the Model Outline Tool for examples of analysis of the evidence and how it supports the claim.

### Activity 5: Lesson Assessment

**30%**

Inform students that they will submit their Outline Tool for this lesson’s assessment. They will be assessed on the central claim, four Evidence-Based Claims with one piece of evidence for each claim, a brief analysis of that evidence, and connections between the evidence. Inform students that the Evidence-Based Claims Criteria Checklist will guide the evaluation of this assessment, and students should refer to their checklists while completing their Outline Tool.

① Evaluate the assessment using the Evidence-Based Claims Criteria Checklist.

- ▶ Students work on their Outline Tool.

Distribute the Additional Evidence Outline Tool and instruct students to record their claims on this tool, as they will need this information for homework.

- ▶ Students turn in their Outline Tool after recording their claims on the Additional Evidence Outline Tool.

### Activity 6: Closing

**5%**

Display and distribute the homework assignment. For homework, instruct students to find an additional piece of evidence for each of their claims and analyze how this evidence further supports their claim. Instruct students to then record their evidence and analysis on the Additional Evidence Outline Tool.

- ▶ Students follow along.



## Homework

For homework, record an additional piece of evidence for each claim. Be sure to analyze the additional evidence and how it supports the claims. Record your evidence and analysis on the Additional Evidence Outline Tool. Be sure to use your Organizing Evidence-Based Claims Tools from the Research Portfolio to support the analysis.

## Outline Tool

<b>Name:</b>		<b>Class:</b>		<b>Date:</b>	
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[Introduction]					
<b>Research Question:</b>					
<b>Central Claim:</b>					

[Body] <b>Claim:</b>					
<b>Evidence:</b>			<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>		

<b>Claim:</b>					
<b>Evidence:</b>			<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>		

<b>Claim:</b>					
<b>Evidence:</b>			<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>		

<b>Claim:</b>	
<b>Evidence:</b>	<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>
<b>[Conclusion]</b>	

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## Model Outline Tool

<b>Name:</b>		<b>Class:</b>		<b>Date:</b>	
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[Introduction]					
<b>Research Question:</b> How does animal intelligence compare with human intelligence?					
<b>Central Claim:</b> The question still has no clear answer; ultimately, it depends on the standards we use to measure intelligence, and whether or not it is fair (or even possible) to compare humans to animals.					
[Body] <b>Claim:</b> Historically there has been an idea that humans are smarter than animals.					
<b>Evidence:</b> “Animals might be capable of learning, they argued, but surely not of thinking and feeling” (Waal).			<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>  This evidence demonstrates that there has historically been a view that animals are not as intelligent as humans. Thinking like this goes at least as far back as the time of ancient Greece.		
<b>Claim:</b> Researchers can measure animal intelligence by observing qualities of intelligence that are shared by humans, but they must design their experiments considering the animal's perspective.					
<b>Evidence:</b> “The researchers discovered that when one chimp laughed others sometimes engaged in ‘laugh replications’ that lacked the full acoustic structure of spontaneous laughter. In other words, they were fake-laughing” (Horowitz and Shea).			<b>Analysis of Evidence:</b> How does the evidence support your claim?  This evidence demonstrates that there can be other ways of measuring intelligence. Animals behave in a variety of ways and though there are times human qualities can be measured, the animal’s perspective should be considered in order to truly measure their intelligence.		

<b>Claim:</b> Sometimes animals possess an intelligence that we must uncover.	
<b>Evidence:</b> “Current evidence has shown that both humans and animals have the ability to mentally represent and compare numbers” (Duke).	<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>  This evidence shows that there are types of intelligence that animals possess that scientists need to research and uncover. A lot of scientists knew that animals could recognize amounts, but it takes more analysis and tests to figure out that a monkey could actually do mathematical problems.
<b>Claim:</b> Some animals can actually learn human language.	
<b>Evidence:</b> “Under Pepperberg’s patient tutelage, Alex learned how to use his vocal tract to imitate almost one hundred English words” (Morell).	<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>  This evidence supports the claim that some animals can even learn language. Alex the parrot is an example of an animal that was taught to imitate human sounds and also can form small sentences. This is another way that animals display their intelligence.
[Conclusion]  <b>Restate central claim:</b> All of these examples prove that animals are often more intelligent than we can see at first. But there is still an unanswered question: How do they compare to humans?	

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## Additional Evidence Outline Tool

<b>Name:</b>		<b>Class:</b>		<b>Date:</b>	
[Body] <b>Claim:</b>					
<b>Evidence:</b>			<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>		
<b>Claim:</b>					
<b>Evidence:</b>			<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>		
<b>Claim:</b>					
<b>Evidence:</b>			<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>		
<b>Claim:</b>					
<b>Evidence:</b>			<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>		

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## Model Additional Evidence Outline Tool

<b>Name:</b>		<b>Class:</b>		<b>Date:</b>	
[Body] <b>Claim:</b> Historically there has been an idea that humans are smarter than animals.					
<b>Evidence:</b> “Aristotle's idea of the scala naturae, the ladder of nature, put all life-forms in rank order, from low to high” (Waal).			<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>  This evidence demonstrates that there has historically been a view that animals are not as intelligent as humans. Thinking like this goes at least as far back as the time of ancient Greece.		
<b>Claim:</b> Researchers can measure animal intelligence by observing qualities of intelligence that are shared by humans, but they must design their experiments considering the animal's perspective.					
<b>Evidence:</b> “A few recent research papers describe animal competence at social and cognitive tasks that humans often struggle with—mastering conversational etiquette” (Horowitz and Shea).			<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>  This evidence demonstrates that there can be other ways of measuring intelligence. Animals behave in a variety of ways and though there are times human qualities can be measured, the animal’s perspective should be considered in order to truly measure their intelligence.		
<b>Claim:</b> Sometimes animals possess an intelligence that we must uncover.					
<b>Evidence:</b>  “We know that animals can recognize quantities, but there is less evidence for their ability to carry out explicit mathematical tasks, such as addition...Our study shows that they can” (Duke).			<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>  This evidence shows that there are types of intelligence that animals possess that scientists need to research and uncover. A lot of scientists knew that animals could recognize amounts, but it takes more analysis and tests to figure out that a monkey could actually do mathematical problems.		

<b>Claim:</b> Some animals can actually learn human language.	
<b>Evidence:</b>  “Pepperberg walked to the back of the room, where Alex sat on top of his cage preening his pearl gray feathers. He stopped at her approach and opened his beak. ‘Want grape,’ Alex said” (Morell).	<b>Analysis of Evidence:</b> <i>How does the evidence support your claim?</i>  This evidence supports the claim that some animals can even learn language. Alex the parrot is an example of an animal that was taught to imitate human sounds and also form short sentences. This is another way that animals display their intelligence.

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