

Name \_\_\_\_\_

## 9<sup>th</sup> Grade Research-Based Persuasion

### Part I



### Statement of Inquiry

Critical readers logically interpret perspectives and identify their point of view through moral reasoning and ethical judgment.

### Initiating Inquiry/Creating a Claim

#### Benchmarks

#### Due Dates:

Exploring a Topic \_\_\_\_\_

Example Research Topic: Seed Text \_\_\_\_\_

Specific Inquiry Questions Checklist \_\_\_\_\_

Create an Evidence Based Claim (Thesis Statement) \_\_\_\_\_

#### Task

In this unit, you will read the excerpt “*Minds of Their Own: Animals are smarter than you think*” by Virginia Morell.

1. You will analyze how an author unfolds and draws connections between key events and ideas in the text while developing and refining her central ideas.
2. This “seed text” will introduce you to potential research topics as well as serve as a model for annotating and research note-taking.

Additionally, you will pose and refine specific inquiry questions which guide your research. Using your inquiry question(s) as a guide, you will analyze each author’s perspective in order to develop the Evidence Based Claim/Thesis Statement for your research based speech.

The following website is a great resource for databases, research expectations, and citing sources:

<http://palmaclibrary10thgrade.weebly.com/>

### Topics

**Each student may choose a debatable topic of greatest interest. Topics must be approved by the teacher, mostly to verify that enough resources are available to move forward. Some common choices of freshman in the past included:**

Voting Age  
 Personal Privacy Issues  
 Gun Control  
 Socialized Medicine  
 America’s Stance on War  
 Marriage Equality

School Uniforms  
 Cloning  
 Stem Cell Research  
 Legalization of Marijuana  
 Drinking Age  
 Driving Age

Euthanasia  
 Death Penalty  
 Extraterrestrials  
 Video Games  
 Music Lyrics  
 Beauty Pageants

Bullying  
 Tanning  
 Censorship  
 Doping  
 Athlete’s Pay  
 Climate Change

# DEFINITION OF TERMS

## USED IN RESEARCHING TO DEEPEN UNDERSTANDING

### A DEVELOPING CORE PROFICIENCIES

### ENGLISH LANGUAGE ARTS / LITERACY UNIT

**Research Question/Problem (Area of Investigation):**

A particular theme, question, problem, or more focused sub-topic within the general topic that warrants investigation.

**Inquiry Question:**

Questions posed by researchers about their research question/problem to be answered through inquiry.

**Inquiry Path:**

Groups of Inquiry Questions developed to guide investigation. Each Inquiry Path has a name or title that is the theme of the group of questions. It can also be a more general question that summarizes the specific questions within the group.

**Research Frame:**

A written document comprised of the topic, the research question/problem, the Inquiry Paths and all the Inquiry Questions within each Inquiry Path. It is the tool that will guide the student throughout the research process.

**Research Portfolio:**

The binder or electronic folder where students physically or electronically store and organize all the material related to their personal research.

**Research Plan:**

A document presenting the strategic process students follow to guide them through the various stages of inquiry.

**Topic:**

The topic from which the research question/problem will be derived.

Excerpt of “Minds of Their Own: Animals are smarter than you think.”  
by Virginia Morell

In 1977 Irene Pepperberg, a recent graduate of Harvard University, did something very bold. At a time when animals still were considered automatons, she set out to find what was on another creature’s mind by talking to it. She brought a one-year-old African gray parrot she named Alex into her lab to teach him to reproduce the sounds of the English language. “I thought if he learned to communicate, I could ask him questions about how he sees the world.”

When Pepperberg began her dialogue with Alex, who died last September at the age of 31, many scientists believed animals were incapable of any thought. They were simply machines, robots programmed to react to stimuli but lacking the ability to think or feel. Any pet owner would disagree. We see the love in our dogs’ eyes and know that, of course, Spot has thoughts and emotions. But such claims remain highly controversial. Gut instinct is not science, and it is all too easy to project human thoughts and feelings onto another creature. How, then, does a scientist prove that an animal is capable of thinking—that it is able to acquire information about the world and act on it?

“That’s why I started my studies with Alex,” Pepperberg said. They were seated—she at her desk, he on top of his cage—in her lab, a windowless room about the size of a boxcar, at Brandeis University. Newspapers lined the floor; baskets of bright toys were stacked on the shelves. They were clearly a team—and because of their work, the notion that animals can think is no longer so fanciful.

Certain skills are considered key signs of higher mental abilities: good memory, a grasp of grammar and symbols, self-awareness, understanding others’ motives, imitating others, and being creative. Bit by bit, in ingenious experiments, researchers have documented these talents in other species, gradually chipping away at what we thought made human beings distinctive while offering a glimpse of where our own abilities came from. Scrub jays know that other jays are thieves and that stashed food can spoil; sheep can recognize faces; chimpanzees use a variety of tools to probe termite mounds and even use weapons to hunt small mammals; dolphins can imitate human postures; the archerfish, which stuns insects with a sudden blast of water, can learn how to aim its squirt simply by watching an experienced fish perform the task. And Alex the parrot turned out to be a surprisingly good talker.

Thirty years after the Alex studies began, Pepperberg and a changing collection of assistants were still giving him English lessons. The humans, along with two younger parrots, also served as Alex’s flock, providing the social input all parrots crave. Like any flock, this one—as small as it was—had its share of drama. Alex dominated his fellow parrots, acted huffy at times around Pepperberg, tolerated the other female humans, and fell to pieces over a male assistant who dropped by for a visit. (“If you were a man,” Pepperberg said, after noting Alex’s aloofness toward me, “he’d be on your shoulder in a second, barfing cashews in your ear.”)

Pepperberg bought Alex in a Chicago pet store. She let the store’s assistant pick him out because she didn’t want other scientists saying later that she’d deliberately chosen an especially smart bird for her work. Given that Alex’s brain was the size of a shelled walnut, most researchers thought Pepperberg’s interspecies communication study would be futile.

“Some people actually called me crazy for trying this,” she said. “Scientists thought that chimpanzees were better subjects, although, of course, chimps can’t speak.”

Chimpanzees, bonobos, and gorillas have been taught to use sign language and symbols to communicate with us, often with impressive results. The bonobo Kanzi, for instance, carries his symbol-communication board with him so he can “talk” to his human researchers, and he has invented combinations of symbols to express his thoughts. Nevertheless, this is not the same thing as having an animal look up at you, open his mouth, and speak.

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. “He hasn’t had his breakfast yet,” Pepperberg explained, “so he’s a little put out.”

Alex returned to preening, while an assistant prepared a bowl of grapes, green beans, apple and banana slices, and corn on the cob.

Under Pepperberg’s patient tutelage, Alex learned how to use his vocal tract to imitate almost one hundred English words, including the sounds for all of these foods, although he calls an apple a “banerry.”

“Apples taste a little bit like bananas to him, and they look a little bit like cherries, so Alex made up that word for them,” Pepperberg said.

Alex could count to six and was learning the sounds for seven and eight. “I’m sure he already knows both numbers,” Pepperberg said. “He’ll probably be able to count to ten, but he’s still learning to say the words. It takes far more time to teach him certain sounds than I ever imagined.”

After breakfast, Alex preened again, keeping an eye on the flock. Every so often, he leaned forward and opened his beak: “Ssse... won.” “That’s good, Alex,” Pepperberg said. “Seven. The number is seven.”

“Ssse... won! Se... won!”

“He’s practicing,” she explained. “That’s how he learns. He’s thinking about how to say that word, how to use his vocal tract to make the correct sound.”

It sounded a bit mad, the idea of a bird having lessons to practice, and willingly doing it. But after listening to and watching Alex, it was difficult to argue with Pepperberg’s explanation for his behaviors. She wasn’t handing him treats for the repetitious work or rapping him on the claws to make him say the sounds.

“He has to hear the words over and over before he can correctly imitate them,” Pepperberg said, after pronouncing “seven” for Alex a good dozen times in a row. “I’m not trying to see if Alex can learn a human language,” she added. “That’s never been the point. My plan always was to use his imitative skills to get a better understanding of avian cognition.”

In other words, because Alex was able to produce a close approximation of the sounds of some English words, Pepperberg could ask him questions about a bird's basic understanding of the world. She couldn't ask him what he was thinking about, but she could ask him about his knowledge of numbers, shapes, and colors. To demonstrate, Pepperberg carried Alex on her arm to a tall wooden perch in the middle of the room. She then retrieved a green key and a small green cup from a basket on a shelf. She held up the two items to Alex's eye.

"What's same?" she asked.

Without hesitation, Alex's beak opened: "Co-lor."

"What's different?" Pepperberg asked.

"Shape," Alex said. His voice had the digitized sound of a cartoon character. Since parrots lack lips (another reason it was difficult for Alex to pronounce some sounds, such as *ba*), the words seemed to come from the air around him, as if a ventriloquist were speaking. But the words—and what can only be called the thoughts—were entirely his.

For the next 20 minutes, Alex ran through his tests, distinguishing colors, shapes, sizes, and materials (wool versus wood versus metal). He did some simple arithmetic, such as counting the yellow toy blocks among a pile of mixed hues.

And, then, as if to offer final proof of the mind inside his bird's brain, Alex spoke up. "Talk clearly!" he commanded, when one of the younger birds Pepperberg was also teaching mispronounced the word green. "Talk clearly!"

"Don't be a smart aleck," Pepperberg said, shaking her head at him. "He knows all this, and he gets bored, so he interrupts the others, or he gives the wrong answer just to be obstinate. At this stage, he's like a teenage son; he's moody, and I'm never sure what he'll do."

"Wanna go tree," Alex said in a tiny voice.

Alex had lived his entire life in captivity, but he knew that beyond the lab's door, there was a hallway and a tall window framing a leafy elm tree. He liked to see the tree, so Pepperberg put her hand out for him to climb aboard. She walked him down the hall into the tree's green light.

"Good boy! Good birdie," Alex said, bobbing on her hand.

"Yes, you're a good boy. You're a good birdie." And she kissed his feathered head.

He was a good birdie until the end, and Pepperberg was happy to report that when he died he had finally mastered "seven."



Name Sample

Topic Animal Intelligence



Write a brief account of the class conversation about the topic, describing what you know at this point about some of its aspects:

While reading the Grandin chapter, we came across parts where Grandin talked about human vs. animal thinking. For example, she said, "Visual thinkers of any species, animal or human, are detail-oriented." So far, I know that animal thinking and human thinking can be similar at times, especially for people like Grandin, who think visually. I also know that people used to not think at all about animal thinking and would only look at their behavior, but now more people think about the internal world of animals. Grandin also writes that she is looking for ways animals can "perceive things humans can't perceive." I would like to know more about how human thinking compares to animal thinking.

### POTENTIAL AREA OF INVESTIGATION 1

In a few words, describe an area within the topic that you would like to know more about:

I would like to know whether studying animal thinking can help us understand human thinking.

Explain why you are interested in this area of the topic:

I am interested in this area of the topic because I want to know more about what animal cognition can tell us about human cognition. For example, if animals and autistic people are both visual thinkers, can studying animals' thinking help us understand autistic people's, or vice versa?

Express your potential area of investigation as a question or problem:

How can studying animal cognition help us learn more about human cognition?

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



POTENTIAL AREA OF INVESTIGATION 2	POTENTIAL AREA OF INVESTIGATION 3	POTENTIAL AREA OF INVESTIGATION 4
In a few words, describe what you would like to know more about within the topic:	In a few words, describe what you would like to know more about within the topic:	In a few words, describe what you would like to know more about within the topic:
Explain why you are interested in this:	Explain why you are interested in this:	Explain why you are interested in this:
Express your potential area of investigation as a question or problem:	Express your potential area of investigation as a question or problem:	Express your potential area of investigation as a question or problem:

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# Posing Inquiry Questions

## Generating Inquiry Questions

A “seed text” is a reading that helps generate potential topics and issues that drive the research process. Issues and topics that are surfaced in the text will be used to pose inquiry questions. These inquiry questions will help illuminate different potential areas of investigation within a research topic. When generating inquiry questions, it is often a good idea to brainstorm as many as possible before selecting and refining the richest ones. Here are several to help you get started:

- What is the topic?
- What are its major aspects?
- Where did it originate?
- What are its causes and implications?
- What is its history?
- What other topics/issues are associated with the topic of the seed text?
- What are its important places, things, people, and experts?

## Selecting and Refining Inquiry Questions

Once the brainstorming process is completed, it is important to review and select the strongest inquiry questions generated. Use the questions below to assist with selecting and refining the strongest inquiry questions:

### **Are you genuinely interested in answering your question?**

There is a lot of work involved in research, and genuine interest motivates the research process. The best questions are about things that are interesting to individual researchers and are considered valuable information.

### **Can your question truly be answered through your research?**

Some questions are unanswerable (Are there aliens on Jupiter?) or take years to answer (What are the long-term effects of sleep loss on a person’s health?). A suitable inquiry question is realistic and researchable within the timeframe available.

### **Is your question clear? Can you pose your question in a way that you and others understand what you are asking?**

Effective inquiry questions are straightforward and not confusing. If the question has two parts, it may be better to separate the parts to form two new questions.

### **What sort of answers does your question require?**

Questions that can be answered with a simple “yes” or “no” generally do not make good inquiry questions. An inquiry question should support plenty of investigation that may even lead to multiple answers, and more questions. For example, the question “What are the characteristics of a cancer cell?” could lead to asking questions about how these characteristics are defined and when they were first discovered.

### **Do you already know what the answer is?**

Suitable inquiry questions are actually questions that cannot be answered immediately. The research process involves inquiry, finding more information about a question, and developing a perspective based on the evidence discovered and this cannot happen if the question is already answered or too simplistic. For example, there is a big difference between the questions “How many types of cancer are there?” (an easily answered question that requires little research) and “What is the history of cancer research?” (a question that would require a lot of research).

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Name Student Response Source(s) # 1 and 5



**Inquiry Question:** How is animal intelligence successfully measured?

**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.: 1 )**  
"Experiments with animals have long been handicapped by our anthropocentric attitude: We often test them in ways that work fine with humans but not so well with other species."

**Detail 2 (Ref.: 5 )**  
"We suggest a simple answer: by pursuing animal cognition with the methods of natural science." "...but careful and impartial experimentation alone can yield incontestable evidence of animal cognition."

**Detail 3 (Ref.: 1 )**  
"Scientists are now finally meeting animals on their own terms instead of treating them like furry (or feathery) humans, and this shift is fundamentally reshaping our understanding."

**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 past animal intelligence research has been limited because of human influence on the research experiments. In the past, human-designed animal experiments have not worked well for animals and may not show an animal's true intelligence potential. Animal research has shifted. The animal's perspective as well as their environment is considered as an integral part of successful experiments. This shift in thinking has produced more research that shows evidence of animal intelligence.

**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:**

The animal's perspective is essential to consider if experiments are going to accurately measure their intelligence.

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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# THESIS STATEMENT/CENTRAL CLAIM

You will draft a working thesis statement that tells your audience what you will discuss in your research paper. Remember to visit the “SPA”:

Subject: \_\_\_\_\_

Purpose: \_\_\_\_\_

Audience: \_\_\_\_\_

This information should guide the way you create your thesis statement!

A **thesis statement** is a single declarative sentence that states the **central claim** of your paper. It identifies both your topic and suggests what the body of your paper will include. Usually, the thesis statement is the **final or second to last sentence of your introductory paragraph**.

Keep the following guidelines in mind as you draft your thesis statement:

- ❖ A thesis statement should be a declarative statement (**use a . not a ?**)
- ❖ A thesis statement is a preview of what the paper is about. However, **do NOT begin with** “The purpose of my paper is...” or “In this paper, I will write about...”
- ❖ Your entire paper including the thesis statement do not include personal pronouns (**I/me/you/your/our/their**)
- ❖ Everything in the rest of the paper supports the thesis statement. This is very important to remember. The statement must be broad enough to act as an umbrella over all of the supporting details you include in the paper.
- ❖ After writing, a good writer will **look back** and make sure the body paragraphs of the research paper prove the thesis statement true. If your evidence does not support your thesis statement, you will need to modify your paper.
- ❖ A thesis statement should have a **confident tone**. Do not use words such as *probably, might, seems to, apparently...* Instead, write your statement as “Ray Bradbury’s science fiction novel, Fahrenheit 451, reflects the experiences of “...”

# Thesis Statement Examples

## BAD

## GOOD

<p><b>Wordy</b> It seems to me that probably one of the seriously important decisions almost all teenagers face today is deciding what jobs they might have sometime in the future.</p>	<p><b>Confident</b> The most important dilemma today's teenagers face is making informed career decisions: choosing a type of work that will sustain them and then preparing adequately for that career.</p>
<p><b>Vague (Imprecise; Unclear)</b> In this community crime is a problem that people can work together to overcome.</p>	<p><b>Specific</b> Crime Watch, a community-based resident patrol, is a practical, effective way for citizens of all ages to cooperate in protecting themselves and their community from crime.</p>
<p><b>States Topic but Does Not Limit Focus</b> Dogs can be trained to help disabled people.</p>	<p><b>States Topic and Limits Focus</b> For thousands of disabled Americans, "service dogs" improve the emotional, social, and economic quality of life.</p>
<p><b>Question</b> How can high school students start a school radio station?</p>	<p><b>Statement</b> With as little as \$500, high school students can create and staff a "drive-by" radio station, benefiting both the students and the school in significant ways.</p>

Your Claim/Thesis: \_\_\_\_\_

\_\_\_\_\_

