

# Inspect

## CCR Performance Tasks

### **ELA Grade 8: Writing About Informational Text**

Beyond the Beyond: Galaxies



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# CCR Performance Tasks

## ELA Grade 8: Writing About Informational Text

### Beyond the Beyond: Galaxies

Student Test Booklet

**Name:** \_\_\_\_\_

## PART 1

**Directions:** Read the article “At Home in the Milky Way,” then follow your teacher’s directions.

---

### At Home in the Milky Way

- <sup>1</sup> From our own corner of the universe to the farthest reaches of space, gravity binds massive systems of stars, dust, and gas together. These are galaxies, and the known universe likely contains hundreds of billions of them. They vary in shape and size, with diameters ranging from hundreds to millions of light years. The stars in the largest systems number in the trillions. Numbers can hardly describe the scale of these structures, and it can be staggering to remember how small we are in their midst. Contained in a remote arm of one of these galaxies, just one star in an immense spiral of at least 200 billion others, is our sun. The anchor of our solar system, the enormous star that dwarfs our planet, is a mere speck in the Milky Way galaxy.
- <sup>2</sup> Humans have been fascinated by the science of stars and space since prehistoric times. We ask endless questions about how and why the universe works. We wonder where we belong in it. Scientists have found answers to many of these questions by studying galaxies—our own as well as those so far away that we will never even begin to explore them.
- <sup>3</sup> When you look at the sky at night, every star you can see without a telescope is part of our own Milky Way system. In fact, the stars we see from Earth are only our few thousand closest neighbors within the galaxy. But even these stars are actually tremendous distances from us. The star nearest to our sun is more than four light years away, and the stars beyond that are much farther. These scattered stars, only a fraction of our galaxy, make up everything that stargazers see with their own eyes.
- <sup>4</sup> In rural areas far from city lights, you may also observe a faintly glowing band of light that arcs across the night sky. This is our inside view of the core of the Milky Way. Scientists once thought this glowing haze was a distant cloud of gas and dust. Galileo proved that the light was in fact made up of many separate stars. Further study revealed that the Milky Way was not a faraway object but a part of our own galaxy, and that the universe contains many other such galaxies.
- <sup>5</sup> We have only just begun to study these distant star systems. NASA's best telescopes can now detect galaxies so far away that their light takes billions of years to reach us. This means that the dim glow we see in photographs has taken almost the entire age of the universe to reach our eyes. Light from the oldest visible galaxy began shining only 500 million years after the Big Bang. Scientists study these early objects to learn what the universe was like when it first took shape. But the idea of actually traveling to far-off galaxies is still more science fiction than real possibility. Even a ship moving near the speed of light would take thousands of human generations just to leave the Milky Way. We continue to learn what we can from distant galaxies, but their sheer size will always limit what we can do. There are countless galaxies that we will never even see, and some of our questions will never be answered.
- <sup>6</sup> At 100 million light years across, the Milky Way is larger than average. However, it is hardly remarkable in size. If we could view it from above, we would see a bright disc much like the

Andromeda Galaxy, the next nearest spiral galaxy. If we were to somehow zoom outward, we could see that the Milky Way and Andromeda, along with dozens of smaller galaxies, form a system called the Local Group. An even wider view would show that the Local Group is in turn a small part of the Virgo Supercluster. One more step back would reveal that even this colossal structure is just one of millions like it in the universe. The scale of this ever-expanding chain is astounding. It tests the very limits of imagination—but we can take some comfort knowing that at the end of it is home.

## Option A

**Directions:** Prepare to participate in a class discussion by considering these questions. You may use the space below to write notes.

---

**1. In the first paragraph, why does the author explain where the sun is located in the Milky Way?**

**2. What is the author's tone in the article? How does the writing contribute to this tone?**

**3. What stops humans from traveling to distant galaxies?**

**4. Why does the author end the article by describing the "chain" of structures that make up the universe?**

## Option B

**Directions:** Answer these questions about the article.

---

**1. In the first paragraph, why does the author explain where the sun is located in the Milky Way?**

---

---

**2. What is the author's tone in the article? How does the writing contribute to this tone?**

---

---

**3. What stops humans from traveling to distant galaxies?**

---

---

**4. Why does the author end the article by describing the "chain" of structures that make up the universe?**

---

---



### Option C

**Directions:** Reread the article and then write a short response to answer the following question.

**How does the author emphasize the impressive size and distance of galaxies? Use details from the text to support your analysis.**

[illegible]

## PART 2

**Directions:** Read the article “Galaxies: The Greatest Frontier” and then follow your teacher’s directions.

---

### Galaxies: The Greatest Frontier

- <sup>1</sup> Since the beginning of humankind, people have looked to the stars and wondered what strange and wonderful worlds might exist beyond our own. But thanks to thousands of years of scientific research, outer space is hardly the unfathomable void it once seemed. Although the universe is certainly still a mystery, we now know much more about it than ever before.
- <sup>2</sup> Space is not empty at all, but full of stars and matter organized into galaxies. These massive systems are the building blocks of the universe. Astronomers describe their shapes as irregular, elliptical, or spiral. Irregular galaxies have no distinct shape and appear cloudy and formless. Elliptical galaxies are shaped like ovals. They may be long and stretched or almost perfectly round. Most known galaxies, including our own, fall into the spiral group. True to their name, these systems contain stars and matter curled into spiral formations. The youngest and brightest stars are found along the swirling arms of the spiral. Older stars cluster near the center. Scientists believe that nearly every spiral galaxy is held together by the gravity of a black hole. Stars and other contents of the galaxy spin around the black hole in the same way that the planets of our solar system orbit around the sun.
- <sup>3</sup> Early astronomers began to learn about outer space by studying what they saw close to Earth, starting with our own galaxy. Humans have long been aware of the cloudy glow in the night sky known as the Milky Way. In the seventeenth century, Galileo proved that the familiar light was in fact a galaxy made up of stars. For centuries, it was thought that the entire universe was contained within the galaxy. But in the 1920s, Edwin Hubble made a shocking discovery. While viewing the Andromeda Nebula, thought to be only gas and dust, Hubble saw individual stars in the cloud. He realized that Andromeda is in fact a separate galaxy far beyond our own, and that many other galaxies exist even farther away. This finding revealed that the universe is much larger than we once thought. However, it also gave us a way to learn about our place within it. The Andromeda Galaxy and the Milky Way are similar in structure and size. Because of this resemblance, researchers can study Andromeda to see what our galaxy looks like from the outside.
- <sup>4</sup> In the decades since Hubble's time, scientists have turned their attention to galaxies much farther than Andromeda. Powerful telescopes provide images of stars so distant that it would take our fastest spacecraft millions of years to reach them. Even stronger telescopes now being built may be able to detect light from the first galaxies ever formed. Like time capsules, images of these star systems could show researchers how the universe began. They could also teach us what will happen to our own galaxy as it ages.
- <sup>5</sup> Today, we are closer than ever to solving the mysteries of outer space. We have already seen several successful missions to Mars. Many thought this feat impossible less than a century ago. With new tools emerging at an astounding rate, it is only a matter of time before we expand our reach. In this age of technology, experts and amateur stargazers alike can access

and share information instantly. Top scientists from all over the world work together on international space programs. Fifteen countries are currently supporting a project to build the largest telescope on Earth. With the help of these advances, astronomers are constantly identifying new galaxies and learning more about our own.

- <sup>6</sup> Our search for knowledge is just beginning. We live on a small planet within an enormous galaxy, and there are billions of others like it. Many generations will likely pass before humans understand even a fraction of the known universe. It is difficult even to imagine the things we have yet to discover—but it is this very challenge that has always driven human curiosity. It is in our nature to wonder and explore. One star at a time, we continue to discover what lies in our galaxy and beyond. If there is a limit to what we can learn from the night sky, we have not even begun to approach it.

## Option A

**Directions:** Prepare to participate in a class discussion by considering these questions. You may use the space below to write notes.

---

**1. How did Hubble's discovery of other galaxies affect space research?**

**2. What is the author's tone in the article? How does the writing support this tone?**

**3. How does the author address the difficulty of studying the universe?**

**4. Why does the author discuss the Mars landings?**

## Option B

**Directions:** Work in groups of 3-4 students to research a topic related to the articles.

---

You will be assigned one of the following topics:

- The career and discoveries of Galileo Galilei
- The career and discoveries of Edwin Hubble
- Current space missions being conducted by NASA
- The Hubble Space Telescope and the space images it provides
- MACS 1149-JD, the most distant galaxy ever detected
- Similarities between the Milky Way and Andromeda Galaxy

Use the space below to take notes for your report to the class.

### Notes

### Option C

**Directions:** Reread "Galaxies: The Greatest Frontier" and review your notes and responses from previous activities. Then respond to the prompt on the lines below.

Read this quote.

"We choose to go to the moon in this decade and do the other things not because they are easy, but because they are hard . . . because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win."—President John F. Kennedy

How is the article "Galaxies: The Greatest Frontier" similar to this quote? Use evidence from the text to support your response.

[illegible]

### PART 3

**Directions:** Reread "At Home in the Milky Way" and "Galaxies: The Greatest Frontier," then follow your teacher's directions.

---

## Option A

**Directions:** Prepare to participate in a class discussion by considering these questions. You may use the space below to write notes.

---

**1. What factual information is presented in both articles?**

**2. What is the main difference in the way the articles discuss information?**

**3. Which details are emphasized in each article? Why?**



## Option B

**Directions:** Complete the graphic organizer by filling in the main ideas and three supporting details from each article.

---

Article	"At Home in the Milky Way"	"Galaxies: The Greatest Frontier"
Main idea		
Supporting detail		
Supporting detail		
Supporting detail		

## PLANNING EXERCISE

**Directions:** Now you will prepare to write an extended response to a question about the texts you have read. For the extended response, you will write an argument responding to the following prompt.

---

Analyze differences in how the articles "At Home in the Milky Way" and "Galaxies: The Greatest Frontier" present information. In what ways do the authors disagree? How does each author accomplish his/her purpose? Use details from the texts you have read to support your analysis.

Reread the texts, and review your notes and responses to the earlier parts of this task. As you plan your response, you should think about:

- how you will analyze the articles;
- evidence from the articles to support your analysis; and
- how you will organize your writing.

Use the space below and on the next page to make notes that prepare you to write your essay.

### Notes

**Notes**

## EXTENDED WRITING PROMPT

**Directions:** Review the texts and review your notes and responses for the earlier parts of this task. Respond to this prompt on the following pages.

**Analyze how the articles "At Home in the Milky Way" and "Galaxies: The Greatest Frontier" present different information. In what ways do the authors disagree? How does each author accomplish his/her purpose? Use details from the texts you have read to support your analysis.**

Your response will be scored using this rubric.

### 4 Point Response

You will:

- Provide a precise, thorough, and insightful analysis of the ways in which the texts provide conflicting interpretations of information;
- Use well-chosen and sufficient details from each article that clearly support the analysis;
- Include major ideas from the passages;
- Create a cohesive organization that includes a concluding section that supports the analysis.

### 3 Point Response

You will:

- Provide a clear and accurate analysis of the ways in which the texts provide conflicting interpretations of information;
- Use relevant details from each article that clearly support the analysis;
- Create a cohesive organization that includes a concluding section.

### 2 Point Response

You will:

- Provide an analysis that lacks clarity or complete accuracy;
- Exclude some major ideas from the articles;
- Simply list differences between the articles without analyzing how the authors interpret information differently;
- Fail to provide organization or a conclusion.

### 1 Point Response

You will:

- Provide a vague or minimal statement about one or more of the articles with little support.

### 0 Point Response

- You will not write a response, your response is incorrect or irrelevant, or you simply quote the text.



Lined writing area for Grade 8: Writing About Informational Text.

# CCR Performance Tasks

## **ELA Grade 8: Writing About Informational Text**

### Beyond the Beyond: Galaxies

Teacher Guide

### Passage Summary

Title	Text Type	Word Count	Lexile	Levels of Meaning/ Purpose	Text Structure	Language Features	Knowledge Demands
At Home in the Milky Way	Informational Text	687	1110L	2	2	2	2
Galaxies: The Greatest Frontier	Informational Text	703	1010L	2	2	2	2

### Passage Placement Rationale

Title	Placement Rationale
At Home in the Milky Way	<ul style="list-style-type: none"> <li>Both the Lexile and qualitative measures indicate that the text is appropriate for grade 8.</li> </ul>
Galaxies: The Greatest Frontier	<ul style="list-style-type: none"> <li>Both the Lexile and qualitative measures indicate that the text is appropriate for grade 8.</li> </ul>



## Key to Qualitative Measures of Text Complexity

Measure	Levels of Meaning/Purpose	Text Structure	Language Features	Knowledge Demands
1	Theme or purpose of text is explicit.	Organization of text is obvious and generally chronological.	Language is explicit and literal; vocabulary is contemporary and familiar; the text contains mainly simple sentences.	The text describes familiar experiences or everyday knowledge.
2	Theme or purpose of text may be more complex or implied but still easy to identify.	<b>Literary text:</b> May include more than one storyline, and may be difficult to predict. <b>Informational text:</b> Connections between some ideas are implicit or subtle; organization of text is generally evident and sequential. Text features and graphics directly support comprehension of text.	Language is largely explicit and easy to understand; vocabulary is mostly contemporary and familiar; the text includes simple and compound sentences.	<b>Literary text:</b> The text describes experiences common to most readers and has a single theme. <b>Informational text:</b> The text includes some discipline- specific knowledge and both concrete and abstract ideas.
3	Theme or purpose of text is implicit and involves several layers of meaning.	<b>Literary text:</b> Organization may include subplots or time shifts. <b>Informational text:</b> Connections among an expanded range of ideas may be deeper and more subtle. Some text features and graphics may be essential to comprehension of text.	Language is complex and contains some abstract and/or figurative language; vocabulary is somewhat complex and is sometimes unfamiliar, archaic or academic; the text includes many complex sentences.	<b>Literary text:</b> The text describes experiences unfamiliar to most readers and includes complex themes. It may include some references to other texts or cultures. <b>Informational text:</b> The text contains moderate levels of discipline-specific content and may include challenging abstract concepts. It may make references to other texts or outside knowledge.
4	Theme or purpose of text is subtle, difficult to determine, and may involve several layers that are difficult to separate and interpret.	<b>Literary text:</b> Organization is intricate. <b>Informational text:</b> Organization is intricate. Connections among an extensive range of ideas are deep, and often implicit.	Language is dense and complex and contains abstract and/or figurative language; vocabulary is generally unfamiliar, archaic, or academic; the text includes mainly complex sentences, often containing multiple concepts.	<b>Literary text:</b> The text describes experiences that are distinctly different for the common reader and includes sophisticated themes. It may make many references to other texts or cultures. <b>Informational text:</b> The text contains extensive discipline- specific content and a range of challenging abstract concepts. It may make many references to other texts or outside knowledge.

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## About the Teacher Guide

This document contains support materials for the “Beyond the Beyond: Galaxies” task. This includes:

- (a) An overview of the task
- (b) The standards addressed by this task, including detailed descriptions of the standards
- (c) The scoring rubrics, including sample student responses
- (d) Questions to stimulate further discussion
- (e) Optional extension activities

### PTE42 Grade 8 Writing About Informational Text

## DOK Level and Consortia Claims

### DOK Level: 4

This performance task provides evidence to support the following claims:

#### SBAC claims

##### Primary claim

<b>Claim 2:</b> Students can produce effective and well-grounded writing for a range of purposes and audiences.
---

##### Secondary claims

<b>Claim 1:</b> Students can read closely and analytically to comprehend a range of increasingly complex literary and informational texts.	Parts 1, 2, and 3
<b>Claim 3:</b> Students can employ effective speaking and listening skills for a range of purposes and audiences.	Parts 1, 2, and 3
<b>Claim 4:</b> Students can engage in research and inquiry to investigate topics, and to analyze, integrate, and present information.	Part 2

#### PARCC claims

##### Primary claim

<b>Major Claim II: Writing</b> —Students write effectively when using and/or analyzing sources.
---

##### Secondary claims

<b>Sub Claim I.2: Reading Informational Text</b> —Students demonstrate comprehension and draw evidence from readings of grade-level, complex informational texts.	Parts 1, 2, and 3
<b>Sub Claim III.1: Research</b> —Students build and present knowledge through research and the integration, comparison, and synthesis of ideas.	Part 2

## Overview of Performance Task

**MAJOR OBJECTIVE:** Students will examine two informational texts about galaxies and write an analysis of how the texts interpret and present information differently.

### PRIMARY STANDARDS ALIGNMENT

STANDARD ID	STANDARD DESCRIPTION
RI.8.1	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
RI.8.2	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
RI.8.9	Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.
W.8.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

### Grade 8 Writing About Informational Text: Galaxies

The passages and activities of this task focus on galaxies, the immense collections of stars and other matter that form the basic foundation of the universe. The passages consist of two informational essays about galaxies. The first essay emphasizes the overwhelming scale of galaxies, structures so large and numerous that humans may never understand them. The second essay interprets our history of scientific progress as proof that we are growing closer to solving the mysteries of the universe. Students will have the opportunity to analyze how the texts interpret facts differently and present conflicting information.

The task consists of three parts; all parts involve student production of work. Parts 1 and 2 include options for activities that may involve group activities or may be completed independently. Parts 1 and 2 lead to the major objective of the performance task: to have the student write an analysis of how the texts interpret factual information in different ways.

### TEACHER GUIDE

#### Part 1

#### CORE TASK

Read the article "At Home in the Milky Way."

In addition to the CORE TASK, select one or more of these options:

#### Option A

Students discuss the article.

#### Option B

Students respond to questions about the article.

#### Option C

Students write a short response to a question about the article.

**Part 2****CORE TASK**

Read the article "Galaxies: The Greatest Frontier."

In addition to the CORE TASK, select one or more of these options:

**Option A**

Students discuss the article.

**Option B**

Students research a related topic and present their findings to the class.

**Option C**

Students examine the main idea of the article by responding to a quote.

**Part 3****CORE TASK**

Reread the articles "At Home in the Milky Way" and "Galaxies: The Greatest Frontier."

In addition to the CORE TASK, select one or more of these options:

**Option A**

Students compare and contrast the articles in a class discussion.

**Option B**

Students complete a graphic organizer.

**Planning Exercise for Extended Writing Prompt**

Students plan their extended responses.

**Extended Writing Prompt**

Students respond to the writing prompt.

## PART 1 Overview

Part 1 focuses on the article "At Home in the Milky Way" and addresses the following general objective.

**OBJECTIVE:** Student will analyze the article and determine the main idea.

### CORE TASK

Read the article "At Home in the Milky Way."

In addition to performing the CORE TASK, select one or more of these options:

#### Option A

Students discuss the article.

#### Option B

Students respond to questions about the article.

#### Option C

Students write a short response to a question about the article.

### STANDARDS ALIGNMENT

The tasks in part 1 are aligned with the following standards.

#### PRIMARY STANDARDS ALIGNMENT

Standard ID	Standard Description	Where Addressed
RI.8.1	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.	Option A Option B Option C
RI.8.2	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.	Option A Option B Option C
RI.8.3	Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).	Option A Option B Option C

#### SECONDARY STANDARDS ALIGNMENT

Standard ID	Standard Description	Where Addressed
RI.8.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	Option A Option B Option C
RI.8.6	Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.	Option A Option B

W.8.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.	Option B Option C
SL.8.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 8 topics, texts, and issues</i> , building on others' ideas and expressing their own clearly.	Option A

## PROCEDURE for Part 1

### CORE TASK

Ask students to read the article "At Home in the Milky Way" and to make notes about any terms and concepts they do not understand.

**PROCEDURE for Part 1: Option A**

After students have finished reading, organize a classroom discussion about the texts. Ask students to take notes during the discussion. These discussion notes will be used to complete other parts of the overall task and as a work product that can be evaluated.

**Use the following questions to stimulate discussion:**

1. In the first paragraph, why does the author explain where the sun is located in the Milky Way?

**Possible Response:** *This shows that the sun, which we usually think of as giant and important, is tiny compared to the entire Milky Way. The comparison helps the reader understand just how large our galaxy is.*

2. What is the author's tone in the article? How does the writing contribute to this tone?

**Possible Response:** *The author uses an awed and respectful tone when writing about the size and distance of galaxies. To support this tone, the author focuses on how small we are in comparison and writes that outer space is "staggering" and "tests the very limits of imagination."*

3. What stops humans from traveling to distant galaxies?

**Possible Response:** *Other galaxies are so far away that it would take many lifetimes to reach them even if we had a spacecraft that could travel at the speed of light.*

4. Why does the author end the article by describing the "chain" of structures that make up the universe?

**Possible Response:** *It shows that each object or system in space, huge in its own right, is part of something even larger. This emphasizes how difficult it is to imagine the size of the universe.*  
OR

*It explains where Earth and the Milky Way belong in the universe, and how all the structures in space are organized.*

**SCORING RUBRIC for Part 1: Option A**

Use the following rubric to evaluate students' responses.

**4 Point Response**

Student will:

- Have meaningful and organized notes for each question addressed in the discussion;
- Participate in the discussion by asking relevant questions and contributing thoughtful responses.

**3 Point Response**

Student will:

- Have organized notes for most questions addressed in the discussion;
- Participate in the discussion by asking relevant questions and/or contributing thoughtful responses.

**2 Point Response**

Student will:

- Have notes for some of the questions addressed in the discussion;
- Participate in the discussion by asking questions, which may not be relevant, and/or by contributing responses.



**1 Point Response**

Student will:

- Have few, if any, notes for the questions addressed in the discussion;
- Fail to participate in the discussion in a meaningful way.

**0 Point Response**

Student will provide no response, the response is incorrect or irrelevant, or the student simply quotes the text.

**PROCEDURE for Part 1: Option B**

Ask students to write a short response to the questions discussed in OPTION A. This activity can serve as a review of OPTION A or replace OPTION A.

1. In the first paragraph, why does the author explain where the sun is located in the Milky Way?

**Possible Response:** *This shows that the sun, which we usually think of as giant and important, is tiny compared to the entire Milky Way. The comparison helps the reader understand just how large our galaxy is.*

2. What is the author's tone in the article? How does the writing contribute to this tone?

**Possible Response:** *The author uses an awed and respectful tone when writing about the size and distance of galaxies. To support this tone, the author focuses on how small we are in comparison and writes that outer space is "staggering" and "tests the very limits of imagination."*

3. What stops humans from traveling to distant galaxies?

**Possible Response:** *Other galaxies are so far away that it would take many lifetimes to reach them even if we had a spacecraft that could travel at the speed of light.*

4. Why does the author end the article by describing the "chain" of structures that make up the universe?

**Possible Response:** *It shows that each object or system in space, huge in its own right, is part of something even larger. This emphasizes how difficult it is to imagine the size of the universe.*

OR

*It explains where Earth and the Milky Way belong in the universe, and how all the structures in space are organized.*

**PROCEDURE for Part 1: Option C**

Ask students to write a short response to a question about the text. This activity can replace OPTION A or OPTION B.

Tell the students to respond to the writing prompt in their test booklets.

**Possible Response:** *In the beginning of "At Home in the Milky Way," the author shows how large galaxies are by giving their measurements—hundreds of billions of galaxies that may be millions of light years across and contain trillions of stars. Then the author further demonstrates the point by writing that even these huge numbers cannot fully capture their size. Another of the author's strategies is to compare galaxies and other space structures to help the reader imagine how large space is. The sun is first described as a giant object that "dwarfs our planet," but then as just "a mere speck" compared to the rest of the galaxy. At the end of the article, the author shows that even the Milky Way is tiny compared to the group, cluster, and supercluster it belongs to. To show how far apart galaxies are, the author explains how long it would take to travel across the Milky Way in terms of human lifespans. This supports the claim that such a feat is impossible and only "science fiction." Throughout the article, the author describes galaxies and other structures as "countless," "colossal," and "immense"—words that remind the reader how small we are compared to all the things we cannot see or understand.*

**SCORING RUBRIC for Part 1: Option C**

Use the following rubric to evaluate students' responses.

<p><b>4 Point Response</b></p> <p>Student will:</p> <ul style="list-style-type: none"> <li>Clearly and thoughtfully explain how the author supports the main idea;</li> <li>Use several relevant, significant details from the text to support the response.</li> </ul>
<p><b>3 Point Response</b></p> <p>Student will:</p> <ul style="list-style-type: none"> <li>Explain how the author supports the main idea;</li> <li>Use some relevant details from the text to support the response.</li> </ul>
<p><b>2 Point Response</b></p> <p>Student will:</p> <ul style="list-style-type: none"> <li>Provide an explanation that lacks clarity or accuracy;</li> <li>Use one or two details to support the response.</li> </ul>
<p><b>1 Point Response</b></p> <p>Student will:</p> <ul style="list-style-type: none"> <li>Provide a vague or minimal statement about the article with little or no support.</li> </ul>
<p><b>0 Point Response</b></p> <p>Student will provide no response, the response is incorrect or irrelevant, or the student simply quotes from existing text.</p>

## PART 2 Overview

Part 2 focuses on the article "Galaxies: The Greatest Frontier" and addresses the following general objective.

**OBJECTIVE:** Student will analyze how the article presents information and determine the main idea.

### CORE TASK

Read the article "Galaxies: The Greatest Frontier."

In addition to the CORE TASK, select one or more of these options:

#### Option A

Students discuss the article.

#### Option B

Students work in groups to research a topic related to the articles and present their findings to the class.

#### Option C

Students identify and analyze the main idea of the article by responding to a quote.

### STANDARDS ALIGNMENT

The tasks in part 2 are aligned with the following standards.

#### PRIMARY STANDARDS ALIGNMENT

Standard ID	Standard Description	Where Addressed
RI.8.1	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.	Option A Option C
RI.8.2	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.	Option A Option C
W.8.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.	Option C

#### SECONDARY STANDARDS ALIGNMENT

Standard ID	Standard Description	Where Addressed
RI.8.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	Option A
RI.8.6	Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.	Option A

SL.8.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 8 topics, texts, and issues</i> , building on others' ideas and expressing their own clearly.	Option A Option B
SL.8.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	Option B
SL.8.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.	Option B

## PROCEDURE for Part 2

### CORE TASK

Ask students to read the article "Galaxies: The Greatest Frontier" and to make notes about any terms and concepts they do not understand.

**PROCEDURE for Part 2: Option A**

After students have finished reading, organize a classroom discussion about the text. Ask students to take notes during the discussion. These discussion notes will be used to complete other parts of the overall task and as a work product that can be evaluated.

**Use the following questions to stimulate discussion:**

1. How did Hubble's discovery of other galaxies affect space research?

**Possible Response:** *It showed that there is much more in the universe than our galaxy, and that there are many other galaxies like our own.*

OR

*It allowed scientists to learn more about the Milky Way by studying other galaxies that are similar to it.*

2. What is the author's tone in the article? How does the writing support this tone?

**Possible Response:** *The tone in the article is confident and ambitious. The author focuses on scientific accomplishments humans have made and claims that it is "only a matter of time" before we have even greater successes.*

3. How does the author address the difficulty of studying the universe?

**Possible Response:** *The author agrees that there are many things we still do not understand but also points out that we now know much more than we ever have. Also, people all over the world are working together on space projects and we are constantly creating better technology that will help us keep making new discoveries.*

4. Why does the author discuss the Mars landings?

**Possible Response:** *They are an example of an achievement in space exploration that many people didn't believe could happen. Since this was possible, maybe humans will be able to do even greater things someday.*

**SCORING RUBRIC for Part 2: Option A**

Use the following rubric to evaluate students' responses.

**4 Point Response**

Student will:

- Have meaningful and organized notes for each question addressed in the discussion;
- Participate in the discussion by asking relevant questions and contributing thoughtful responses.

**3 Point Response**

Student will:

- Have organized notes for most questions addressed in the discussion;
- Participate in the discussion by asking relevant questions and/or contributing thoughtful responses.

**2 Point Response**

Student will:

- Have notes for some of the questions addressed in the discussion;
- Participate in the discussion by asking questions, which may not be relevant, and/or by contributing responses.

**1 Point Response**

Student will:

- Have few, if any, notes for the questions addressed in the discussion;
- Fail to participate in the discussion in a meaningful way.

**0 Point Response**

Student will provide no response, the response is incorrect or irrelevant, or the student simply quotes the text.

**PROCEDURE for Part 2: Option B**

Ask students to conduct research related to the main topics in the text. This activity can replace OPTION A.

Instruct students to work in small groups of 3-4 people to research and report to the class information about one of the following topics:

- The career and discoveries of Galileo Galilei
- The career and discoveries of Edwin Hubble
- Current space missions being conducted by NASA
- The Hubble Space Telescope and the space images it provides
- MACS 1149-JD, the most distant galaxy ever detected
- Similarities between the Milky Way and Andromeda Galaxy

**SCORING RUBRIC for Part 2: Option B**

Use the following rubric to evaluate students' responses.

**4 Point Response**

Student will:

- Provide a thorough report on the assigned topic with well-chosen details in support;
- Present the report in a focused and coherent manner.

**3 Point Response**

Student will:

- Provide a general report on the assigned topic with details in support;
- Present the report in an appropriate manner, showing some focus and cohesion.

**2 Point Response**

Student will:

- Provide a partial report on the assigned topic that lacks cohesion or focus;
- Include some details in support.

**1 Point Response**

Student will:

- Provide a limited report with minimal details in support.

**0 Point Response**

Student will provide no response, the response is incorrect or irrelevant, or the student simply reads from existing text.



**PROCEDURE for Part 2: Option C**

Provide students with the following quote. Explain that it is from President Kennedy's speech at Rice University in 1962, soon after the United States joined the race to be the first humans to land on the moon.

"We choose to go to the moon in this decade and do the other things not because they are easy, but because they are hard . . . because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win."—President John F. Kennedy

Ask students to write a short response that examines how the article is similar to President Kennedy's quote, citing evidence from the text.

**Possible Response:** *President Kennedy's words share the same ambition and pride present in "Galaxies: The Greatest Frontier." Both Kennedy and the author of the article see space exploration as a challenge that we are ready and able to face. At the time of the speech, many people probably thought traveling to the moon was too difficult, just as many people now think it is impossible to travel to other galaxies or understand very much about them. However, both Kennedy and the author of the article argue that we are able to overcome these difficulties. Like the quote, the article acknowledges the many obstacles to studying and understanding distant galaxies. But both go on to claim that we could still reach incredible goals if we keep working for them. The author argues that humans will continue to conquer the unknown, even the most mysterious and distant regions of space—a feeling that Kennedy seems to have shared when he gave his speech.*

**SCORING RUBRIC for Part 2: Option C**

Use the following rubric to evaluate students' responses.

**4 Point Response**

Student will:

- Provide a response that demonstrates a thorough understanding of the text and clearly explains how the quote relates to the article;
- Include major ideas and details from the article;
- Exclude minor details that do not support the analysis.

**3 Point Response**

Student will:

- Provide a response that clearly explains how the quote relates to the article;
- Include the main idea from the article;
- Include a few details that do not clearly support the analysis.

**2 Point Response**

Student will:

- Provide a response that generally relates the quote to the article;
- Exclude some major ideas from the text;
- Include details that do not support the central task.

**1 Point Response**

Student will:

- Restate the quote without reflecting on the significance to the text; OR
- Use mostly direct quotations from the article in an attempt to relate it to the quote.

**0 Point Response**

Student will provide no response, the response is incorrect or irrelevant, or the student simply quotes the text.

## Part 3 Overview

Part 3 focuses on both articles and addresses the following general objective.

**OBJECTIVE:** Student will compare and contrast the two articles before writing an analysis of how the texts present information.

### CORE TASK

Students reread both articles.

In addition to performing the CORE TASK, select one or more of these options:

#### Option A

Students respond to questions about the excerpts.

#### Option B

Students complete a graphic organizer comparing main ideas from the articles.

#### Option C

Students plan their extended responses.

#### Writing Prompt

All students write an extended response analyzing how the texts interpret and present information in different ways.

### STANDARDS ALIGNMENT

The tasks in part 3 are aligned with the following standards.

#### PRIMARY STANDARDS ALIGNMENT

Standard ID	Standard Description	Where Addressed
RI.8.1	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.	Option A Option B Writing Prompt
RI.8.2	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.	Option A Option B Writing Prompt
RI.8.9	Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.	Option A Option B Writing Prompt
W.8.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.	Writing Prompt

**SECONDARY STANDARDS ALIGNMENT**

<b>Standard ID</b>	<b>Standard Description</b>	<b>Where Addressed</b>
RI.8.3	Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).	Option A Option B Writing Prompt
RI.8.6	Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.	Option A Option B
SL.8.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 8 topics, texts, and issues</i> , building on others' ideas and expressing their own clearly.	Option A
W.8.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.	Writing Prompt

**PROCEDURE for Part 3****CORE TASK**

Ask students to reread "At Home in the Milky Way" and "Galaxies: The Greatest Frontier." Tell them to make notes of any terms or concepts they do not understand.

**PROCEDURE for Part 3: Option A**

After students have finished reading, organize a classroom discussion about the articles. Ask students to take notes during the discussion. These discussion notes will be used to complete other parts of the overall task and as a work product that can be evaluated.

**Use the following questions to stimulate discussion:**

1. What factual information is presented in both articles?

**Possible Response:** *Both articles discuss the basic structure of galaxies, as well as their extremely large size and some of the major discoveries astronomers have made about them.*

(Other responses identifying facts mentioned in both articles are acceptable.)

2. What is the main difference in the way the articles discuss information?

**Possible Response:** *The first article presents the huge size of galaxies as the limit that will always keep us from learning very much about them or ever being able to visit them. The second article interprets these same facts as a challenge that humans could someday overcome.*

3. Which details are emphasized in each article? Why?

**Possible Response:** *The author of "At Home in the Milky Way" focuses on how large and far apart galaxies are as evidence that there is only so much we can understand about them. The author of "Galaxies: The Greatest Frontier" focuses more on current projects and past successes in space research. This evidence suggests that there is no limit to what we could learn about galaxies.*

**SCORING RUBRIC for Part 3: Option A**

Use the following rubric to evaluate students' responses.

**4 Point Response**

Student will:

- Have meaningful and organized notes for each question addressed in the discussion;
- Participate in the discussion by asking relevant questions and contributing thoughtful responses.

**3 Point Response**

Student will:

- Have organized notes for most questions addressed in the discussion;
- Participate in the discussion by asking relevant questions and/or contributing thoughtful responses.

**2 Point Response**

Student will:

- Have notes for some of the questions addressed in the discussion;
- Participate in the discussion by asking questions, which may not be relevant, and/or by contributing responses.

**1 Point Response**

Student will:

- Have few, if any, notes for the questions addressed in the discussion;
- Fail to participate in the discussion in a meaningful way.

**0 Point Response**

Student will provide no response, the response is incorrect or irrelevant, or the student simply quotes the text.

**PROCEDURE for Part 3: Option B**

Ask students to reread the articles and then complete their graphic organizer.

A probable student response is shown below.

Article	"At Home in the Milky Way"	"Galaxies: The Greatest Frontier"
<b>Main idea</b>	<i>Galaxies are so large and there are so many of them that humans will never be able to fully understand or explore them.</i>	<i>We are constantly making new discoveries about galaxies, and we are working toward solving the mysteries of outer space.</i>
<b>Supporting detail</b>	<i>Compared to the rest of the universe, Earth and humankind are insignificant in size.</i>	<i>We have access to the combined knowledge of thousands of years of astronomers.</i>
<b>Supporting detail</b>	<i>Even if we had much better technology, it would take thousands of generations of astronauts just to get outside of the Milky Way.</i>	<i>The Mars landings and other successes prove that we can accomplish things once thought impossible.</i>
<b>Supporting detail</b>	<i>Our galaxy is only one of many in a galaxy group. This group is part of a cluster, which in turn is part of a supercluster. There are so many galaxies in the universe that we could never see all of them.</i>	<i>Modern technology allows people to exchange research and information more easily than ever before.</i>

**PROCEDURE for Part 3: Planning Exercise**

Tell students they now have a chance to plan their extended response. They should follow the directions in their booklets.

**SCORING RUBRIC for Part 3: Extended Writing Prompt**

Tell the students to respond to the writing prompt in their test booklets.

Use the following rubric to evaluate students' responses.

**4 Point Response**

Student will:

- Provide a precise, thorough, and insightful analysis of the ways in which the texts provide conflicting interpretations of information;
- Use well-chosen and sufficient details from each article that clearly support the analysis;
- Include major ideas from the passages;
- Create a cohesive organization that includes a concluding section that supports the analysis.

**3 Point Response**

Student will:

- Provide a clear and accurate analysis of the ways in which the texts provide conflicting interpretations of information;
- Use relevant details from each article that clearly support the analysis;
- Create a cohesive organization that includes a concluding section.

**2 Point Response**

Student will:

- Provide an analysis that lacks clarity or complete accuracy;
- Exclude some major ideas from the articles;
- List differences between the articles without analyzing how the authors interpret information differently;
- Fail to provide organization or a conclusion.

**1 Point Response**

Student will:

- Provide a vague or minimal statement about one or more of the articles with little support.

**0 Point Response**

Student provides no response, the response is incorrect or irrelevant, or the student simply quotes the text.

**OPTIONAL EXTENSION ACTIVITY for Part 3**

W.8.5 With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.

Ask the students to revise and edit their responses to the extended prompt based on teacher or peer reviews.