Comparing Texts

A Sound of Thunder

Video link at thinkcentral.com

Short Story by Ray Bradbury

From Here to There: The Physics of Time Travel

Magazine Article by Brad Stone

The Time Machine

Movie Poster

Would you visit the

PAST if you could?



Virginia Standards of Learning

9.3f Extend general and specialized vocabulary through speaking, reading, and writing. 9.4e Explain the relationship between and among elements of literature: characters, plot, setting, tone, point of view, and theme. 9.4m Use reading strategies to monitor comprehension throughout the reading process.

Imagine that you could board a time machine and travel into the past. In "A Sound of Thunder," the main character does just that. His journey, however, has unexpected consequences.

What's the Connection?

You've probably already encountered time machines in books, comics, TV shows, movies, and other media. As you read the selections that follow, you will again ponder the phenomenon of time travel—as both a compelling premise for science fiction stories and a real scientific possibility.



TEXT ANALYSIS: FORESHADOWING

Foreshadowing is a writer's use of clues to hint at events that will happen later in a story. By using this technique Bradbury creates **suspense**, the feeling of tension or excitement that readers experience when they want to know what will happen next. Foreshadowing often occurs when a character makes an unusual statement or issues a strong warning, as in this example:

"So be careful. Stay on the Path. Never step off!"

Watch for other examples of foreshadowing as you read Bradbury's story.

Review: Plot

READING SKILL: ANALYZE SEQUENCE

A story about time travel presents some interesting challenges. If you were to create a timeline to track the characters' travels, it would go backward and then forward again. Yet the events in the story are presented in the order in which they happen to the characters. As you read the story, keep track of the **sequence** of events by creating a chart like the one shown. Record important events before, during, and after the time safari.

Before	During	After
Eckels prepares to travel back in time to		
hunt dinosaurs.	eManda in an	a more

Review: Make Inferences, Predict

▲ VOCABULARY IN CONTEXT

See which of the following words from the story you already know. Place each word in the appropriate column. Then write a brief definition of each word you're familiar with.

WORD	annihilate	malfunctioning paradox	subliminal
LIST	correlate		undulate
	expendable infinitesimally	resilient stagnating	

Know Well	now Well Think I Know Don't Know	

Complete the activities in your Reader/Writer Notebook.

Meet the Author

Ray Bradbury

born 1920

Social Critic for the Future

A major writer in the genres of science fiction and fantasy, Ray Bradbury explores the future, outer space—and the human heart. Over his long career, he has lived to see much science fiction become science fact. His most chilling stories comment on the human consequences of progress and often reflect the ironies of life.

A Library Education

Bradbury fervently believes in the importance of reading. "I didn't go to college, but when I graduated from high school I went down to the local library," he has said. For ten years Bradbury spent two or three days each week reading in the local public library in Los Angeles, California.

Not Quite a Technophobe

This master of science fiction writes his stories on a typewriter rather than a computer, scorns the Internet, and has never even driven a car. Still, Bradbury is a strong advocate of space travel because he views it as "life-enhancing."

BACKGROUND TO THE STORY

The Fourth Dimension

Time travel has been a popular idea in science fiction ever since the British author H. G. Wells wrote his short novel *The Time Machine* in 1895. In the novel, Wells suggested that in addition to the three dimensions of length, height, and width, there was a fourth dimension of duration, or time. Wells speculated that if a machine could be invented to move along the fourth dimension, travel backward and forward in time would be possible.



56UND 6F THUNDER

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Analyze Visuals

RAY BRADBURY

Examine this picture. What information can you **infer** about the world it portrays?

A FORESHADOWING

Reread lines 13–18. What might the man's warning to Eckels foreshadow?



Text not available for online use. Please refer to your print textbook. FORESHADOWING What might the conversation about the election results foreshadow? PLOT What have you learned about the characters' situation in the exposition?

- 1. **aurora** (Ə-rôr'ə): a shifting, streaming display of light, like those sometimes seen in the sky in the northern and southern regions of the earth.
- 2. Chinese boxes: a set of boxes, each of which fits neatly inside the next larger one.
- 3. Deutscher (doi'chər).

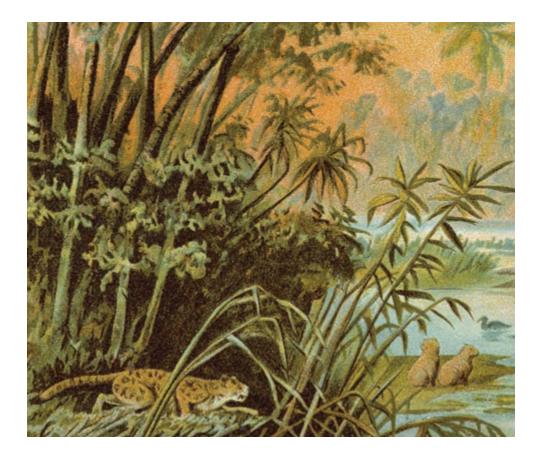
MAKE INFERENCES On the basis of details presented so far, what kind of person is Eckels? Text not available for online use. Please refer to your print textbook. FORESHADOWING What might Travis's warning to the hunters foreshadow? How does his warning create suspense?

- 4. **Lesperance** (lĕs'pər-äns).
- 5. **Moses . . . talk with God:** According to the Old Testament, God spoke directly to Moses several times in mountainous locations, as when Moses received the Ten Commandments on Mount Sinai.
- 6. **antigravity metal:** a metal that counteracts the pull of gravity.

Text not available for online use. Please refer to your print textbook.

annihilate (ə-nī'ə-lāt') v. to destroy completely

7. pay big graft to keep our franchise: pay large bribes to officials in return for their approval of the business.



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expendable

(ĭk-spĕn'də-bəl) adj. not worth keeping; not essential

infinitesimally

(ĭn'fĭn-ĭ-tĕs'ə-mə-lē) adv. in amounts so small as to be barely measurable



9.3f

Language Coach

Oral Fluency When the letter b is followed by a t, the b is often—though not always—silent, as in the word subtle (line 140). Look up the pronunciations of the following words in a dictionary: doubt, debt, obtain, obtrusive.

correlate (kôr'ə-lāt')
v. to figure out or create
a relationship between
two items or events

^{8.} saber-toothed tiger: a type of extinct wild cat that lived about 40 million years ago.

paradox (păr'ə-dŏks') n. a statement or an event that sounds impossible but seems to be true **F** ANALYZE SEQUENCE Up until now, the men have spent most of their time talking and arguing. Now, however, the action begins to pick up. As you Text not available for online use. read the next sequence of events, pay attention to Please refer to your print textbook. what happens. **GRAMMAR AND STYLE** Reread lines 188-195. Notice how Bradbury uses sentence fragments and **contractions** to create realistic dialogue.

^{9.} pterodactyls (tĕr'ə-dăk'təlz): extinct flying reptiles.

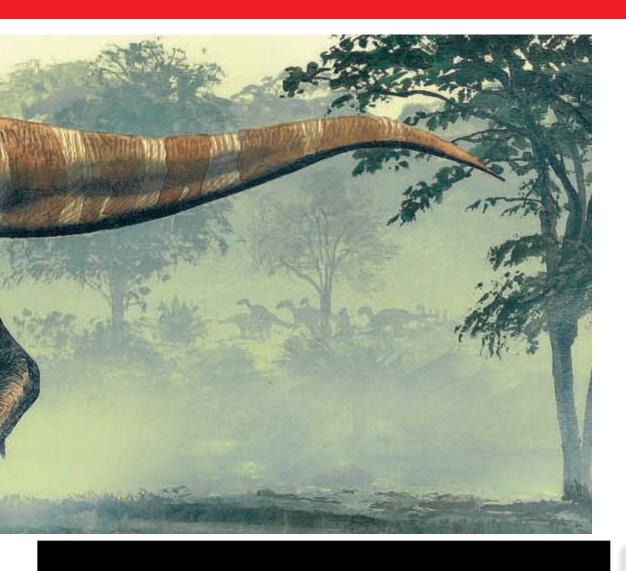
resilient (rĭ-zĭl'yənt) adj. strong but flexible; able to withstand stress without injury Text not available for online use. Please refer to your print textbook. **MAKE INFERENCES** Why do you think Travis is annoyed with Eckels? undulate (ŭn'jə-lāt') v. to move in waves or in a smooth, wavelike motion



Text not available for online use. Please refer to your print textbook.

ANALYZE SEQUENCEReread lines 252–259.

Reread lines 252–259.
What important event occurs in these lines?
What do you think might happen as a result of this event?



∢Analyze Visua*ls*

What qualities of *Tyrannosaurus rex* are emphasized in this illustration? Explain.

Text not available for online use. Please refer to your print textbook.



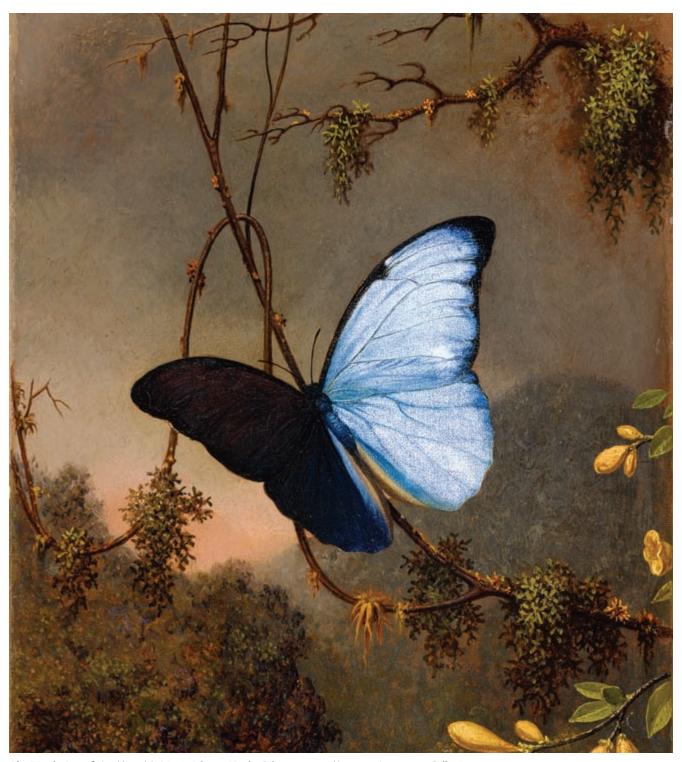
Frequently Misused Words The verbs lie, meaning "to rest, recline, or stay," and lay, meaning "to put (something) in place," are often confused. The past tense of *lie* is lay (as in lines 271 and 279), and the past tense of lay is laid. Write a sentence using the past-tense form laid. Remember that the verb *laid* will require an object in your sentence.

malfunctioning (măl-fŭngk'shə-nĭng) adj. not working or operating properly malfunction v. Text not available for online use. Please refer to your print textbook. **stagnating** (stăg'nā'tĭng) adj. becoming foul or rotten from lack of movement stagnate v. PREDICT What do you predict might be the consequences of Eckels's action?

Text not available for online use. Please refer to your print textbook.

subliminal

(sŭb-lĭm'ə-nəl) *adj.* below the level of consciousness



Blue Morpho Butterfly (1864–1865), Martin Johnson Heade. Oil on canvas, $12^{1/4}$ " × 10". Anonymous Collection.

Text not available for online use. Please refer to your print textbook.

MAKE INFERENCES

What important discovery does Eckels make? Why do you think it horrifies him so?

Comprehension

- 1. Recall What does Eckels do in the past that has far-reaching consequences?
- **2. Summarize** When Eckels returns from the world of dinosaurs, what is different about the present?
- **3. Clarify** What is the "sound of thunder" at the end of the story?

Text Analysis

- **4.** Make Inferences How would you characterize the business practices of Time Safari, Inc.? What evidence from the text supports your inference?
- 5. Draw Conclusions Why does Travis kill Eckels? Explain your answer.
- 6. Understand Sequence Look again at the chart you filled out as you read. Determine two points in the story where a character could have taken an action that might have prevented changing the future.
- 7. Interpret Foreshadowing Note three or four examples of foreshadowing in the story and the outcome of each example. Make a chart like the one below to record your results. An example has been filled in for you.

Foreshadowing	Outcome
"If you disobey instructions"	Eckels steps off the Path.

How did these instances of foreshadowing—or their outcomes—affect your reading experience?

8. Evaluate Author "A Sound of Thunder" is a work of science fiction, yet there are realistic aspects to the story. In your opinion, has Bradbury created a believable story? Cite specific examples to support your opinion.

Text Criticism

9. Critical Interpretations In a review of *Dinosaur Tales*, a collection of Bradbury stories that contains "A Sound of Thunder," the critic Andrew Andrews remarked that Bradbury "gets to you—in simple ways he shows you how to marvel over these awesome, startling creatures." Reread Bradbury's description of *Tyrannosaurus rex*. What words and phrases convey its terrifying force?

Would you visit the PAST if you could?

What potential consequences might influence your decision?



Virginia Standards of Learning

9.4e Explain the relationships between and among elements of literature: characters, plot, setting, tone, point of view, and theme. **9.4l** Make predictions, inferences, draw conclusions, and connect prior knowledge to support reading comprehension. **9.4m** Use reading strategies to monitor comprehension throughout the reading process.

Vocabulary in Context

▲ VOCABULARY PRACTICE

Answer the questions to show your understanding of the vocabulary words.

- 1. Which is more **expendable** in a jungle, a book or bug repellent?
- 2. Which is probably stagnating, a weed-filled pond or a flowing stream?
- **3.** If I **correlate** information, do I throw it out or see how it fits together?
- **4.** Would a **malfunctioning** phone never ring or have two choices of ring?
- **5.** If a change happens **infinitesimally**, is it easy or difficult to detect?
- **6.** What makes a person's body more **resilient**, exercising or reading?
- 7. Which might annihilate a bird species, a severe virus or a tasty plant?
- 8. Is a subliminal response an unconscious memory or a prepared speech?
- 9. Would ocean waves or broken glass be more likely to undulate?
- **10.** Which is a **paradox**, a rose's blooming in snow or a tree's budding in spring?

ACADEMIC VOCABULARY IN SPEAKING

• analyze • element • infer • sequence • structure

Is it possible to **infer** exactly how Eckels's actions in the past lead to their effects in the present? Discuss your thoughts with a classmate. Use at least one Academic Vocabulary word as you support your opinion.

VOCABULARY STRATEGY: THE LATIN WORD ROOT mal

The vocabulary word *malfunctioning* contains the Latin root *mal*, meaning "bad" or "wrongly." You'll encounter *mal* in many contexts—in terms related to health, for instance, such as *malnourished* and *malady*. When *mal* is used as a prefix with English base words, as in *malnourished*, you can easily figure out meanings. To understand other words containing *mal*, you may need to use context clues in addition to your knowledge of the root.

PRACTICE Use the meaning of *mal*, along with context clues, to figure out the meanings of the underlined words.

- **1.** In his speech, the candidate <u>maligned</u> his opponents.
- 2. She was grateful that the tumor on her spine was not malignant.
- Anyone who complains as much as he must be a malcontent.
- **4.** We now know that <u>malaria</u> is spread by mosquitoes, not through the air.

WORD LIST

annihilate
correlate
expendable
infinitesimally
malfunctioning
paradox
resilient
stagnating
subliminal

undulate



Virginia Standards of Learning

9.3a Use structural analysis of roots, affixes, synonyms, antonyms, and cognates to understand complex words.



Language

♦ GRAMMAR AND STYLE: Use Realistic Dialogue

Review the **Grammar and Style** note on page 44. Bradbury successfully crafts his dialogue by using the following techniques:

- **1. Sentence fragments** Although seldom used in formal writing, sentence fragments are common in everyday conversation.
- **2. Contractions** Using contractions, like *I've*, *we'll*, *hasn't*, and *don't*, makes dialogue sound less formal and more natural. Here is an example from the story:

"A Tyrannosaurus rex. The Tyrant Lizard, the most incredible monster in history. Sign this release. Anything happens to you, we're not responsible. Those dinosaurs are hungry."

Eckels flushed angrily. "Trying to scare me!" (lines 46-49)

Notice how the revisions in blue make this dialogue sound realistic. Revise your response to the prompt below by using similar techniques.

STUDENT MODEL

"Why did you do that? Have you lost your mind?" Lesperance cried.

"He was a simpering idiot. He ruined it for all of us. The world is

better off without him," Travis shot back.

READING-WRITING CONNECTION



Broaden your understanding of "A Sound of Thunder" by responding to this prompt. Then use the **revising tip** to improve your writing.

WRITING PROMPT

Extended Constructed Response: Dialogue

What might the characters say to one another after the shooting of Eckels? Using Bradbury's style of dialogue as a model, write **one page** of dialogue to show how the characters react to the main incident in the story and its consequences.

REVISING TIP

Review your response.
Did you use informal,
conversational
language? Consider
adding sentence
fragments or
contractions to make
the dialogue more

realistic.



9.6 The student will develop narrative, expository, and persuasive writings for a variety of audiences and purposes. **9.6h** Revise writing for clarity of content, accuracy, and depth of information.



Magazine Article

Will it ever be possible to vacation in the past? And if so, would the fate of a prehistoric butterfly really determine the course of a civilization? Questions like this have been the subject of debate among physicists.



TIME TRAVEL—it's the dream of every science-fiction hack who's ever picked up a pen, and the fantasy of many of the rest of us, too. How wonderful to go back and right the wrongs of the past! But time travel could also let you go back and cause an accident that kills your greatgreat-grandfather, negating your own existence and provoking a potentially universe-ending paradox. At least that's what armchair temporal theorists worry about. But not Paul Nahin. He's a professor of electrical engineering at the University of New Hampshire and the author of Time Machines: Time Travel in Physics, Metaphysics, and Science Fiction. And he's able to translate into plain English an ongoing, esoteric debate between some of the smartest minds in physics over whether time travel is actually possible. "The laws of physics as we know them now don't disallow time travel," explains the 57-yearold Nahin. "Anything that physics doesn't forbid must be considered."

Scientific consideration of time travel has its roots, with much of modern physics, in the genius of Albert Einstein, who married space and time in his theory of relativity. Doing further work on relativity in 1948, mathematician Kurt Gödel declared that it would actually be possible to travel through time under the right conditions. Serious scientists didn't give the matter much thought until the mid-'80s, when Carl

Sagan's novel *Contact* sent its heroine on a journey through space-time via a wormhole (a theoretical hyperspace tunnel connecting two points of the universe). That intrigued researchers at Caltech, who three years later released a groundbreaking report on the plausibility of traveling through wormholes.

British physicist Stephen Hawking has been the most prominent skeptic, hypothesizing that any attempt at time travel would lead to a "back reaction," a massive buildup of energy that would rip space apart. His theory is called the Chronology Protection Conjecture, since it would make history safe from explorers who might meddle in important historical events. The best evidence against time travel, according to Hawking's writings, is that "we have not been invaded by hordes of tourists from the future."

Other physicists, hoping to prove that time travel is theoretically possible, have devised on paper four different ways to do it. But all require unrealistic quantities of energy under hugely improbable conditions.

Each proposal has supporters and detractors. But the one thing that physicists don't waste much time on is the paradoxes—like altering the present by killing someone in the past. Nahin says time-travel paradoxes are "manifestations of imperfect understanding." So whatever the resolution of the time-travel debate, rest assured that your great-great-grandpa is safe.

Reading for Information

Movie Poster

The Time Machine by H. G. Wells inspired both fiction writers and scientists to consider the possibility of time travel. This book has also been adapted into feature films, such as the 1960 movie advertised in the poster below. For more on the book *The Time Machine*, see Background to the Story on page 37.



9.2 The student will produce, analyze, and evaluate auditory, visual, and written media messages. 9.2b Determine the purpose of the media message and its effect on the audience.



- ANALYZE DETAILS
 How would you describe the setting that this movie poster depicts?
- 2. INFER
 Consider both the text
 and the main image on
 the poster. In what key
 way is *The Time Machine*probably different from "A
 Sound of Thunder"?
- 3. EVALUATE

 Does this poster capture
 your interest? Would it
 be effective in persuading
 you to see *The Time*Machine? Explain.

Assessment Practice: Short Constructed Response

LITERARY TEXT: "A SOUND OF THUNDER"

Assessments often require you to form clear, reasonable ideas about a text and support them with evidence. To strengthen your critical-reading skills, answer the **short constructed response** question below. The strategies on the right will help you craft a strong response.

What theme, or message, is Bradbury conveying through "A Sound of Thunder"? Support your answer with evidence from the story.

STRATEGIES IN ACTION

- A theme is a general statement about life that you can infer from a literary work.
 Begin your response with a clear statement of the story's main theme.
- 2. Evidence can take the form of a direct quotation, a paraphrase, or a specific synopsis. For a question that applies to an entire literary work, consider using a specific synopsis, a brief summary of certain events in the story, as evidence.

NONFICTION TEXT: "FROM HERE TO THERE"

Writers of nonfiction texts use specific organizational patterns, such as cause and effect, problem-solution, and comparison-contrast, to communicate their ideas. Consider a text's organization when drawing conclusions about the text's meaning. The strategies below will help you practice this skill as you answer a **short constructed response** question.

What is the purpose of "From Here to There: The Physics of Time Travel"? Support your answer with evidence from the article.

STRATEGIES IN ACTION

- I. Reread the article, and note what the writer is comparing and contrasting.
- State the article's major purpose (or purposes) and include relevant evidence to support your statement.

COMPARING LITERARY AND NONFICTION TEXTS

Tests often require you to synthesize the ideas expressed in multiple texts. Practice this valuable skill by applying the following **short constructed response** question to "A Sound of Thunder" and "From Here to There: The Physics of Time Travel."

Suppose "A Sound of Thunder" were a true story. Whose theories in the magazine article would its plot contradict? Support your answer with evidence from both texts.

STRATEGIES IN ACTION

- I. Note that you need to offer evidence from both texts to support your answer.
- Make sure that the connection between your answer and the evidence you give from each text is clear.