

Muse®

Fooled You!

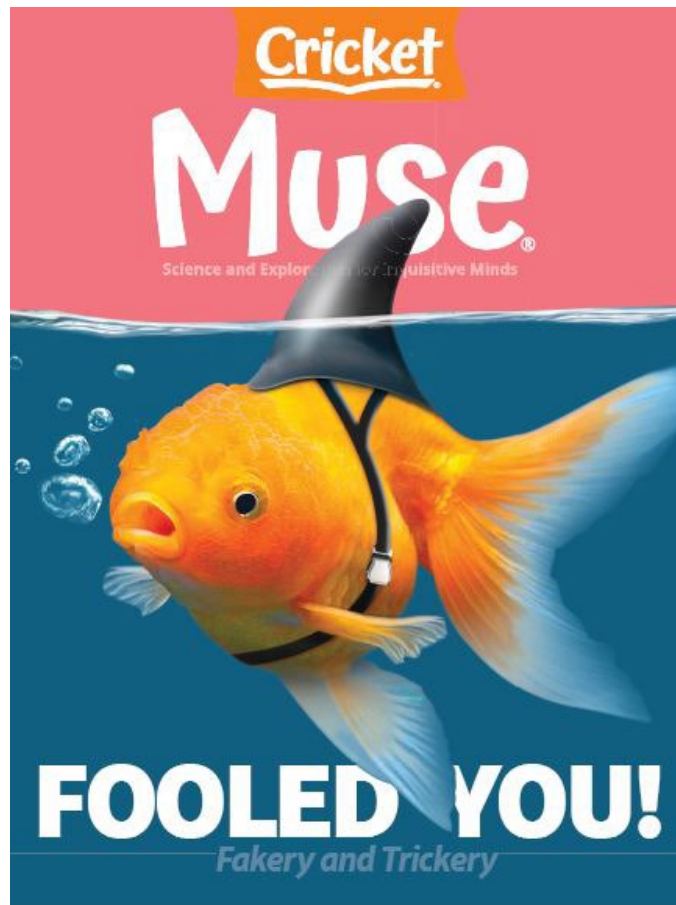
Psychologists have discovered that it's easier to believe a simple lie than to have one's mind changed by information that is new and novel. This issue of MUSE explores some of the greatest hoaxes of all time and explains why we are often willing believers.

CONVERSATION QUESTION

How can we identify deceptions?

TEACHING OBJECTIVES

- Students will learn the true story behind the *War of the Worlds* hoax.
- Students will learn why many people are convinced that supernatural phenomena are real.
- Students will learn the true story behind an incredible fake automaton that helped to inspire the computer age.
- Students will examine cause-and-effect relationships.
- Students will construct explanations from a nonfiction text.
- Students will examine structure and function.
- Students will study the phenomenon of fake news.
- Students will explain a scientific statement as it refers to UAFs (unidentified aerial phenomena).
- Students will analyze a poem by Edgar Allen Poe.



In addition to supplemental materials focused on core STEM skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

SELECTIONS

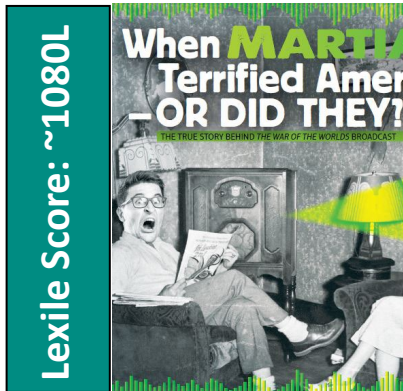
- **When Martians Terrified Americans—or Did They?**
Expository Nonfiction, ~1030L
- **A Guide to the Believing Brain**
Expository Nonfiction, ~980L
- **Rooked!**
Expository Nonfiction, ~870L

Muse® Teacher Guide: October 2022

When Martians Terrified Americans—or Did They?

pp. 10–13, Expository Nonfiction

On the evening of October 30, 1938, a shocking radio announcement was aired—Martians had landed in Grovers Mill, New Jersey. Readers will learn about one of the most famous media deceptions of all time.



RESOURCES

Cause and Effect: Fear Factors

OBJECTIVES

- Students will learn the true story behind the *War of the Worlds* hoax.
- Students will examine cause-and-effect relationships.
- Students will study the phenomenon of fake news.

KEY VOCABULARY

- **parlor** (p. 11) a room in a house or apartment that is used for conversation or for spending time with guests
- **hoax** (p. 11) an act that is meant to trick or deceive people
- **dramatization** (p. 12) a play or movie adapted from a novel or depicting a particular incident

ENGAGE

Conversation Question: How can we identify deceptions?

Pose this question: “What are you afraid of?” Have students list two or three of their fears. Ask students to share their lists and create a master list of students’ fears on the board. Use tally marks to indicate when a fear is repeated. Identify the top three fears. Then discuss whether these fears are innate, learned, or a combination of both.

INTRODUCE VOCABULARY

Display the following sentences and underline the key vocabulary terms. Then have students work in pairs to use context clues to determine the meaning of each word. Reveal definitions.

1. Maisy and her friends talked in the parlor while Dad cooked dinner.
2. In class, we watched a movie that was a dramatization of the short story we had read last week.
3. My sister said the dog ate the last cookie, but I knew this was a hoax and not true.

READ & DISCUSS

Reinforce comprehension of the concepts presented in the article by using the following questions to direct discussion:

1. How did Giovanni Schiaparelli contribute to the idea that Mars was home to an advanced civilization?
2. What was Orson Welles trying to accomplish by broadcasting *The War of the Worlds* on radio?
3. What changes did Welles ask the writers to make? Why?
4. How did special-effects genius Ora Nichols contribute to the broadcast and, unknowingly, the panic?
5. What is the “hoax within a hoax” referred to in the article?

SKILL FOCUS: Cause and Effect

INSTRUCT: Lead the students in a discussion that guides them to recognize the primary cause-and-effect relationship (a relationship in which one event makes another event happen) that is presented in this article. Introduce the *Cause and Effect: Fear Factors* graphic organizer and explain that students will be recording the circumstances that led to the fear people felt during the broadcast.

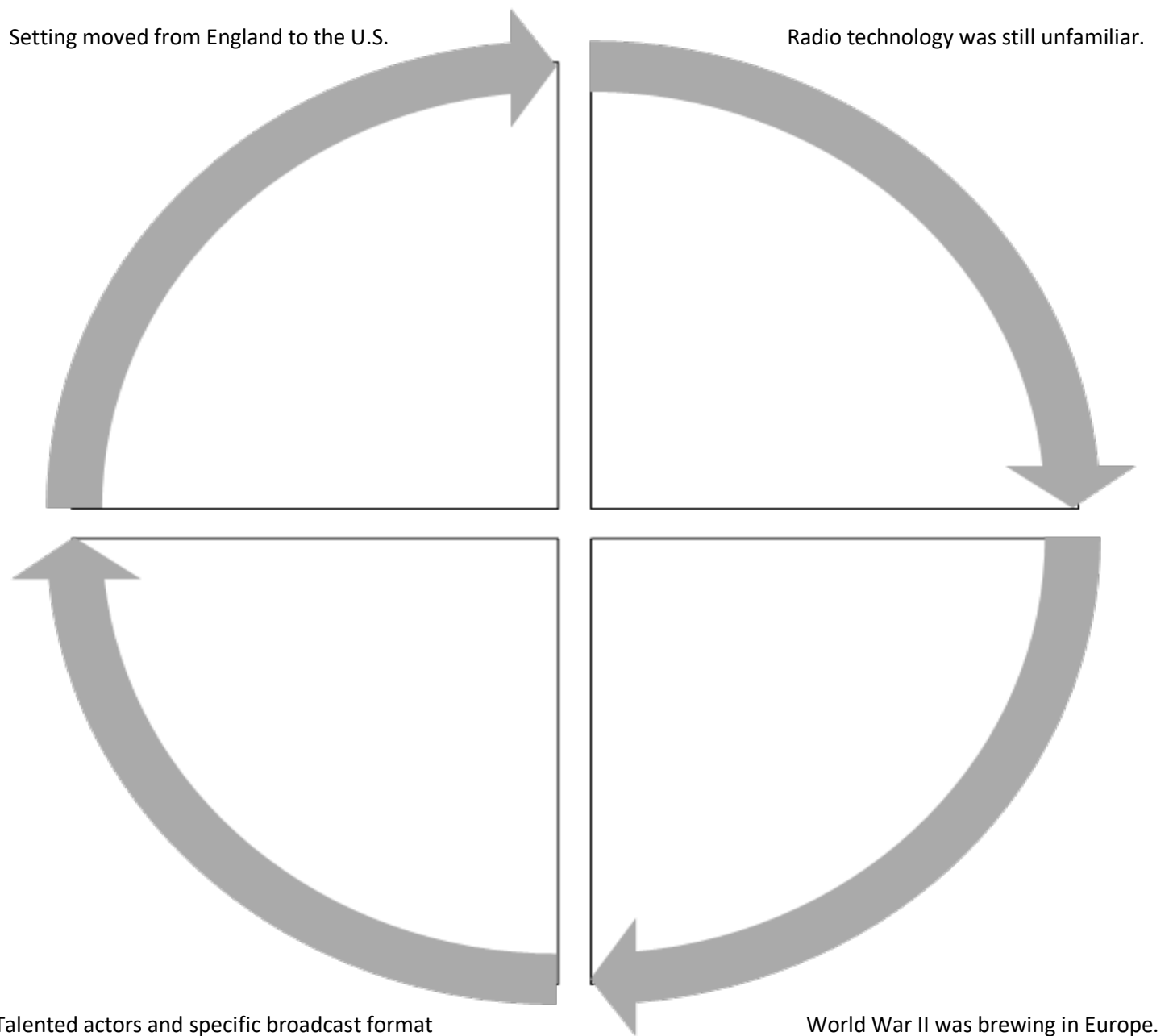
ASSESS: Review the *Fear Factors* worksheet. Have students discuss how Americans today might react to such a broadcast and why.

EXTEND

Social Studies Discuss the phenomenon of fake news with students—How is it created? Why is it a problem?—and teach students the importance of media literacy. Point out that even trained experts can have difficulty identifying false information. Have groups of students play the game “Two Truths and a Lie.” Then bring the class together to discuss why some lies are harder to discern than others.

Fear Factors

Cause and Effect The article discusses several underlying circumstances that were partly responsible for Americans being fearful during the *War of the Worlds* broadcast. Use details to explain each contributing factor.

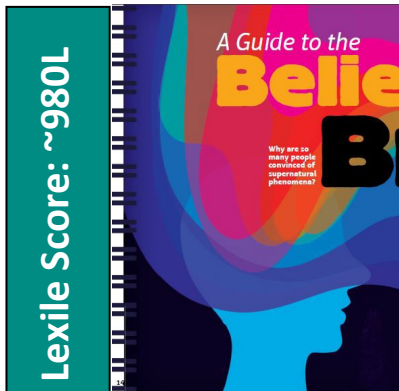


Muse® Teacher Guide: October 2022

A Guide to the Believing Brain

pp. 14–17, Expository Nonfiction

Superstition and belief in magic are millions of years old. Scientific investigation is much newer. This article explores why humans aren't hard-wired to think critically about supernatural experiences.



RESOURCES

Constructing Explanations: Mind Control

OBJECTIVES

- Students will learn why many people are convinced that supernatural phenomena are real.
- Students will construct explanations from a nonfiction text.
- Students will explain a scientific statement as it refers to UAFs (unidentified aerial phenomena).

KEY VOCABULARY

- **supernatural** (p. 14) unable to be explained by science or the laws of nature
- **mystical** (p. 15) having a spiritual meaning that is difficult to see or understand
- **skeptic** (p. 15) a person who questions or doubts something

ENGAGE

Conversation Question: How can we identify deceptions?

Explain that people have many different beliefs about the reality of supernatural phenomena, such as ghosts, bigfoot, and UFOs. Ask students to share stories of the supernatural they've heard. Note these on the board. Then ask students which stories, if any, can be proven with evidence. Point out that supernatural beliefs are not usually backed by scientific evidence. Briefly discuss why people might still believe in them. (Stress respect for different belief systems.)

INTRODUCE VOCABULARY

Post and discuss the three vocabulary words and their definitions. Ask students which two words have similar meanings (*supernatural* and *mystical*). Then give students two minutes to brainstorm synonyms for the word *skeptic* (ex: *doubter*, *cynic*).

READ & DISCUSS

Read the article aloud with the class. Have students reread the article in small groups to answer the questions below. Share responses.

1. Why are so many people convinced of supernatural phenomena despite the lack of scientific evidence?
2. How can you become a better critical thinker and a better skeptic?
3. Why does neuroscientist Ani Seth say that what you experience is your brain's best guess about what is out in the world?
4. How are scientists searching for evidence of extraterrestrial life in the vastness of the universe?
5. Why is skepticism a powerful tool?

SKILL FOCUS: Construct Explanations

INSTRUCT: Advise students to review the article and to study the three scientific explanations for experiences resembling supernatural occurrences. Distribute the *Construct Explanations: Mind Control* graphic organizer. Tell students they will use information from the article to complete the chart. Students will need to provide clear explanations about what each element is and why it produces a supernatural experience.

ASSESS: Review the chart with the class. Encourage volunteers to share any relevant experiences.

EXTEND

Science According to the article, the U.S. Department of Defense (DOD) recently created a task force to study *unidentified aerial phenomena* (UAFs) that have been sighted in the sky. In May 2022, the DOD shared images of UAFs with the public. View images online. Discuss what the images might show—technology from other countries, weather measurement devices, spaceships from other planets? Have small groups discuss these words from the late astronomer Carl Sagan: “Extraordinary claims require extraordinary evidence.” How does Sagan's idea connect to UAFs and supernatural phenomena?

Mind Control

Constructing Explanations Review the article and locate the passages that discuss the elements listed below. Explain how each element can resemble a supernatural experience.

pareidolia

hallucination

sleep
paralysis

Rooked!

pp. 32–34, Expository Nonfiction

Engaging opponents from all over the world in a game of chess, Turk appeared to be a mechanical man who could logically reason and react. This article details the true story of the chess-playing automaton.



RESOURCES

Structure and Function: Checkmate

OBJECTIVES

- Students will learn the true story behind an automaton that helped inspire the computer age.
- Students will examine structure and function.
- Students will analyze a poem by Edgar Allen Poe.

KEY VOCABULARY

- **automaton** (p. 32) a moving mechanical device made in imitation of a human being
- **renowned** (p. 33) known and admired by many people for some special quality or achievement
- **artificial intelligence** (p. 34) the simulation of human intelligence processes by machines, especially computer systems

ENGAGE

Conversation Question: How can we identify deceptions?

Before reading this article, give students the opportunity to play checkers or chess against a classmate. Then arrange for them to play against a computer. Have students compare and contrast the experiences. Ask the following questions: Which was preferable? Why? What are the pros and cons of an automated opponent?

INTRODUCE VOCABULARY

Post and review the three vocabulary words. Explain that all of the words can be found in the article. Have students use the title and the vocabulary words to predict the content of the article. Revisit the predictions after the reading and challenge students to write a brief summary of the article that incorporates all three words.

READ & DISCUSS

Pose the following questions to prompt meaningful discussion. Students should use complete sentences and details to answer each question.

1. Who are some of the famous historical figures that interacted with or studied Turk?
2. Describe the appearance of Turk.
3. How did Turk’s handlers try to assure spectators that it was genuine?
4. What theory did Turk’s final owner confirm in 1854 after Turk was destroyed by fire?
5. How did the hoax of Turk lead to amazing ideas and creations?

SKILL FOCUS: Structure and Function

INSTRUCT: Elicit from students that the main idea of the article is to tell the story of one of the most incredible and most enduring hoaxes of all time. Present the *Structure and Function: Checkmate* graphic organizer, and tell students that they will use information from the article to record how the fake automaton, Turk, functioned as an inspiration for real inventions and ideas.

ASSESS: Circulate and discuss content with students. Collect graphic organizers to assess their ability to understand the structure-and-function relationship.

EXTEND

Poetry The article states, “American author Edgar Allen Poe attended a performance [by the Turk] in Richmond, Virginia in 1835. Not just a great writer, Poe was also a detective, code-breaker and self-trained scientist.” Distribute to students a copy of one of Poe’s poems, such as “The Raven” or “Annabel Lee.” Have students work in small groups to identify and analyze structure, imagery, word choice, tone, and figurative language in the poem. Invite groups to share their ideas with the class.

Checkmate

Structure and Function Although Turk turned out to be a deception, the fake automaton functioned as a gateway to greater things. Explain below.

How did Turk . . .

Astound audiences?

Inspire real inventions?

Address fears about advancing technology?

Start an early debate about artificial intelligence?