

ZOMBIES

READING INSTRUCTIONAL GUIDE FOR HIGH-INTEREST ARTICLE

UNIT ESSENTIAL QUESTION

How does the popularity of zombies relate to fear and the outbreak of infectious disease?

BEFORE READING

Looking at the Words: Structure and Meaning

Complete the Unit Vocabulary Assessment as a pretest before vocabulary instruction.

As you read the article, complete the following vocabulary chart.

Words to Study	Syllables	Prefix	Root Word	Suffix	Origin	Meaning in Context
acknowledge	ac-knowl-edge	n/a	ack knowledge	n/a	(Old English) <i>oncnawan-</i> know <i>leche-</i> knowledge	(v.) to recognize as true
attribute	at-trib-ute					
hieroglyph	hi-er-o-glyph					
conclusive	con-clu-sive					
intimidation	in-tim-i-da-tion					
neurotoxin	neu-ro-tox-in					
recovery	re-cov-er-y					

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Words to Study	Syllables	Prefix	Root Word	Suffix	Origin	Meaning in Context
revive	re-vive					
sorcerer	sor-cer-er					
submission	sub-mis-sion					

Activating Background Knowledge and Setting a Purpose for Reading

Anticipation Guide

Indicate “Agree” or “Disagree” for the following statements before beginning the unit of study. You will have the opportunity to revisit these statements after reading the text. You will then fill in the text reference column with the applicable evidence from the text that has either confirmed or challenged your views.

BEFORE READING	AFTER READING		
Statement	Agree/ Disagree	Agree/ Disagree	Text Reference/Paragraph #
Zombies as we know them go beyond the worlds of religion and fantasy.			
The popularity of zombies comes from bringing fear to ordinary people.			
It's reasonable for people to believe that there could be a zombie invasion today.			
Zombie movies have increased the public's interest in zombies.			
The popularity of zombies has roots in history across cultures.			

Introduction to Unit Essential Question

After completing the Anticipation Guide, participate in an initial small- or whole-group discussion of the unit essential question:

How does the popularity of zombies relate to fear and the outbreak of infectious disease?

DURING READING

- Skim the passage and questions that follow.
- Read the article closely, marking words or phrases that are unfamiliar. Question, summarize, clarify, and predict, making marginal notes for each paragraph or section.
- Determine the meaning of unknown words by interpreting words and phrases within the context of the passage.
- Examine elements within the text that shape it, including structure, point of view, style, and relationships between ideas.
- Reread the article to determine central themes, marking textual evidence.
- Complete the graphic organizer in order to integrate and evaluate ideas within the article.

AFTER READING

What words, if any, are you still confused about after reading the article? Try using decoding strategies, word structures, and context clues to read the unfamiliar words. Then revisit the Anticipation Guide to see if your views have changed after reading the text. Record evidence from the text to support your answers.

Text-Based Discussion Questions

Use specific evidence from the text to support your claims and keep your discussion connected to the article.

1. According to the article, which culture first reported zombies?
2. Using information in the article, explain how different cultures in history created the zombie myth.
3. Based on the article, how have zombies changed over time?
4. What qualities from the movies made people fear zombies?
5. What zombie qualities make people fear them today?

ZOMBIES

HIGH-INTEREST ARTICLE

THE ORIGIN OF ZOMBIES

They shuffle past you, moaning and confused. Their weakened brains have made it impossible to think clearly. But if they spot you, it's over. Unaware of how slowly they are moving, they hunt you down. They are zombies. They are undead. And they are hungry!

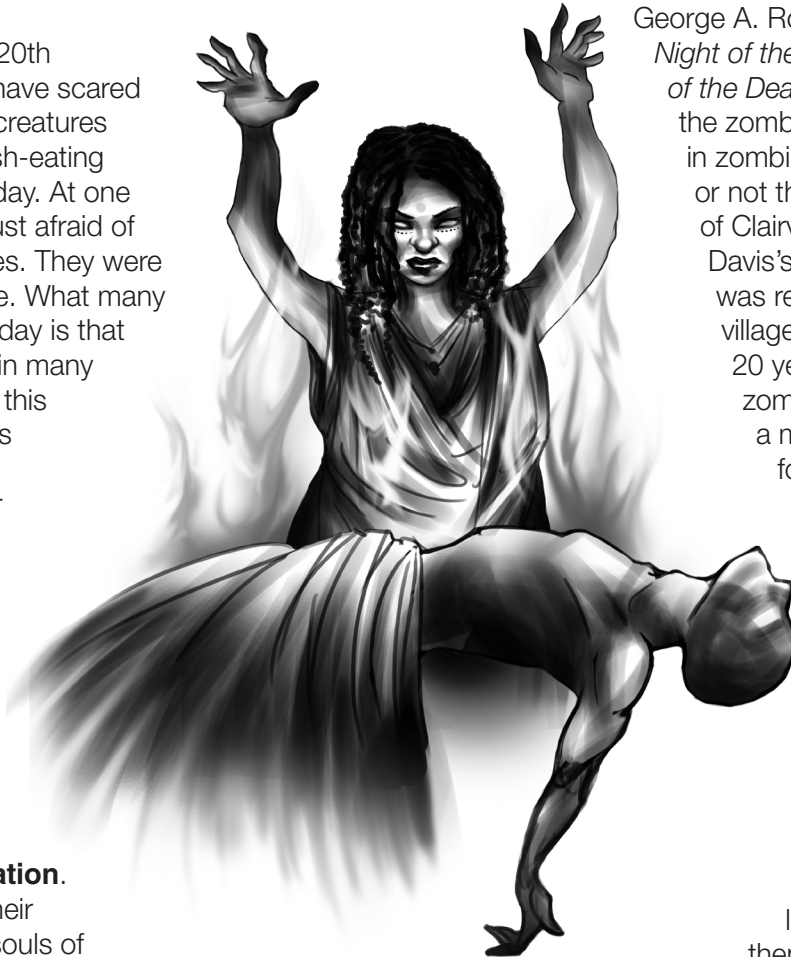
Ever since the early 20th century, zombie films have scared audiences. But these creatures weren't always the flesh-eating monsters we know today. At one time, people weren't just afraid of being bitten by zombies. They were afraid of becoming one. What many people don't realize today is that the zombie shows up in many ancient myths. In fact, this began with Voodoo. As part of Voodoo, the zombie has existed for centuries. And they were not brutal or blood-thirsty.

The zombie began in the Haitian tradition of the bokor. The bokor was a Voodoo **sorcerer**. Bokors specialized in **intimidation**. They claimed to use their magic to capture the souls of others. Then they would steal their bodies as slaves. People feared becoming zombies because this meant bondage to a bokor for life. When these myths began, many in the Caribbean and Haitian culture were slaves on sugar cane plantations. This slavery left many dead. Others were

beaten into **submission**. This cruelty created a fear of becoming a slave zombie. And this explains much of the fear of zombies that exists today.

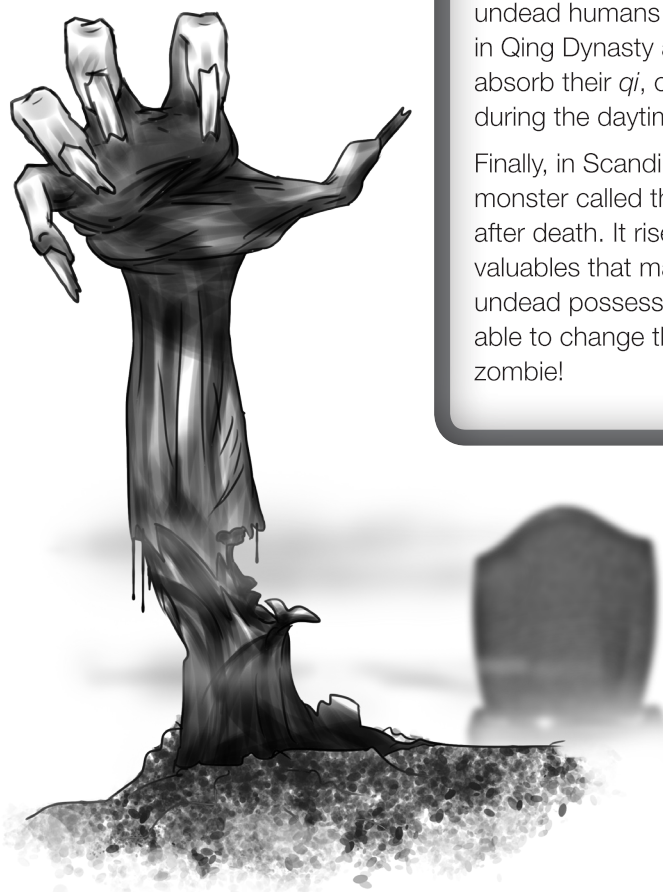
Dr. Wade Davis traveled to Haiti in the 1980s to study zombie science. By this time, George A. Romero had released both *Night of the Living Dead* and *Dawn of the Dead*. These movies changed the zombie movie genre. Interest in zombies was high, whether or not they were real. The story of Clairvius Narcisse caught Dr. Davis's attention. Mr. Narcisse was reported to appear in his village after having died nearly 20 years before. Davis studied zombies in Haiti and made a major discovery. In order for bokors to **revive** a corpse, they needed a special zombie powder. Despite the differences in each, Davis noticed one key similarity in all "zombie powder." Each included a **neurotoxin** from pufferfish. Davis believed this toxin could mimic a death-like state. This state was then followed by a slow **recovery**. This supported the belief in Narcisse's story. It also explained the belief that zombies could return to normal after slavery.

Unfortunately, Davis's research was not **conclusive**. Many doctors argued against his claims. They said his



lab findings weren't enough to make a valid claim. Despite his failures, Davis is recognized for his research on zombie history and culture. And he is **acknowledged** as an expert.

After Davis's findings became public, the face of the zombie in pop culture changed. Rather than pathetic slaves, the undead now had the **attributes** of evil but mindless creatures. And rather than being the product of Voodoo, zombies in the 21st century were seen as the product of infection. In fact, few zombies today are seen as the returning dead. Zombies are now the result of an infected human. Some are infected by viruses like rabies. Others are infected by mold spores that infect the brain. Though there is no proof that zombies are real, they continue to bring fear and the unanswered question, "What if ...?"



Zombies in Other Cultures

Zombie myth does not go back only to Haiti. The undead have been a part of many different cultures for thousands of years. Some believe that **hieroglyphs** discovered on Easter Island show a zombie outbreak. The story goes that the population was devastated, leading to the carving of the Easter Island heads. Sound crazy? It only gets weirder.

In Ireland, the fear of vampires was more widespread than that of zombies. There were several burial rituals performed to prevent vampires from coming back to life. However, scientists have recently discovered bodies buried around the 8th century with stones in their mouths. They believe that the stones were placed to prevent them from rising up out of the ground and biting others.

The Epic of Gilgamesh is an epic poem written around 1700 BC in Mesopotamia. This work refers to zombie-like behavior and talks about the dead re-awakening to attack the living.

In China, the undead are referred to as *Jiang-Shi*. These undead humans come back to attack the living. Dressed in Qing Dynasty attire, they kill the living in order to absorb their *qi*, or life force. They then return to coffins during the daytime.

Finally, in Scandinavia, an 8th-century myth tells of a monster called the *draugr*. This means one who walks after death. It rises out of the grave to protect the valuables that may have been buried with him. These undead possess superhuman strength. And they are able to change their size at will. Talk about a scary zombie!



READING COMPREHENSION

After reading “The Origin of Zombies,” select the responses that best answer questions 1–9. Then read question 10 and construct a short response that is supported by textual evidence.

1. Part A

Based on what you learned from the article, how have zombies in history affected the public’s view of zombies?

- A. Zombie magic is a common theme throughout all legends.
- B. Myths of zombies have created fear of zombies.
- C. Zombies in the movies are nothing like they are in myths.
- D. Zombies in movies today are much scarier than the zombies from other cultures.

Part B

Select two pieces of evidence from the article that support the answer to Part A.

- A. This cruelty fostered a fear of becoming a slave zombie.
- B. It also explained the belief that zombies could return to normal after slavery.
- C. In Ireland, the fear of vampires was more widespread than that of zombies.
- D. Finally, in Scandinavia, an 8th-century myth tells of a monster called the *draugr*. This means one who walks after death.

2. Which statement best states the central idea of the third paragraph of the article?

- A. Bokors were violent slave drivers.
- B. The fear of zombies in Haiti began when bokors threatened victims with slavery for life.
- C. Most of Haiti was once enslaved by threat of zombies.
- D. Bokors created the zombie myth to make people believe that they were magical.

3. Closely reread the three paragraphs discussing the work of Dr. Wade Davis (paragraphs 4–6). According to this text, how did his work affect the public view of zombies?

- A. His research led to an all-time high interest in zombies.
- B. His research was ignored by the public.
- C. His research proved that zombies did not exist in Haiti.
- D. His work led to a shift in the view of zombies from slaves to evil creatures.

4. Reread these sentences from the article.

“Then they would steal their bodies as slaves. People feared becoming zombies because this meant bondage to a bokor for life.”

The term *bondage* in this sentence probably means

- A. fear.
- B. student.
- C. slavery.
- D. pale appearance.

5. What is the purpose of the text box “Zombies in Other Cultures?”

- A. to explain why zombies are so popular in movies
- B. to prove that zombie myths have existed across other places and times
- C. to show that zombies are a real threat in many cultures
- D. to explain why zombie diseases are feared

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6. Part A

Which of the following statements suggests that the fear of zombies has deep roots in many countries, both past and present?

- A. Their weakened brains have made it impossible to think clearly.
- B. People feared becoming zombies because this meant bondage to a bokor for life.
- C. The undead have been a part of many different cultures for thousands of years.
- D. And they were not brutal or blood-thirsty.

Part B

Select two pieces of evidence from the High-Interest Article that support the answer to Part A.

- A. This cruelty created a fear of becoming a slave zombie. And this explains much of the fear of zombies that exists today.
- B. The zombie began in the Haitian tradition of the bokor.
- C. By this time, George A. Romero had released both *Night of the Living Dead* and *Dawn of the Dead*. These movies changed the zombie movie genre.
- D. This supported the belief in Narcisse's story. It also explained the belief that zombies could return to normal after slavery.

7. Read the following excerpt from "The Story of the Zombi in Haiti" from *Man: A Record of Anthropological Science in 1945*.

"The theory on which the belief in Zombis is based is that some Haitian medicine-men have the power to bring dead and buried people back to life again. These resurrected human beings are the Zombis, the living dead. . . .The medicine-man is also supposed to have power over fate.."

How does this statement work along with the article to give the reader a better understanding of zombies in Haiti?

- A. It describes the "medicine-man's" abilities concerning the fate and life of the dead.
- B. It shows that zombies were killers.
- C. The article and passage work together to prove that zombies did not exist.
- D. The passage shows death by zombie as the best way to join the afterlife.

8. Which statement(s) from the article provides the best evidence that Haitian bokors may not have had magical powers as they claimed?

- A. Bokors specialized in intimidation.
- B. This cruelty created a fear of becoming a slave zombie.
- C. Despite his failures, Davis is recognized for his research on zombie history and culture. And he is acknowledged as an expert.
- D. Davis believed this toxin could mimic a death-like state. This state was then followed by a slow recovery.

9. Read closely the following quotation from Zora Neale Hurston, a researcher of Haitian folklore.

"What is more, if science ever gets to the bottom of Voodoo in Haiti and Africa, it will be found that some important medical secrets, still unknown to medical science, give it its power, rather than gestures of ceremony."

How does the view presented in this quotation relate to the central idea presented in the article about Dr. Davis's research?

- A. Davis and Hurston would disagree that Haitian voodoo was based in reality.
- B. It supports Davis's belief that the bokors' zombie powder was actually a neurotoxin recognized by medical science.
- C. In Hurston's eyes, Davis's research could not be proved by medical science.
- D. Davis and Hurston would agree that bokors had little influence on people.

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10. Closely reread the text box of the High-Interest Article. What does this passage reveal about the similarities among zombies across cultures?

SORTING THE EVIDENCE

Directions: Closely reread the unit High-Interest Article, “The Origin of Zombies.” As you reread, take notes under the appropriate headings about zombies—background, traditions, research, and modern-day zombies. Under each heading, write three supporting details from the text.

 DIAGNOSIS

Zombie Background:

1. _____
2. _____
3. _____

Voodoo Traditions:

1. _____
2. _____
3. _____

Dr. Wade Davis:

1. _____
2. _____
3. _____

Modern Zombies:

1. _____
2. _____
3. _____



READING INSTRUCTIONAL GUIDE FOR TECHNICAL ARTICLE

BEFORE READING

Looking at the Words: Structure and Meaning

As you read the article, complete the following vocabulary chart.

Words to Study	Syllables	Prefix	Root Word	Suffix	Origin	Meaning in Context
abnormality	ab-nor-mal-i-ty	ab	normal	ity	(Latin) ab- not normalis- normal	(n.) state of irregularity
deflate	de-flate					
deplete	de-plete					
dysfunction	dys-func-tion					
inconsistent	in-con-sis-tent					
incubation	in-cu-ba-tion					
phenomenon	phe-nom-e-non					
plausible	plau-si-ble					
potential	po-ten-tial					
specific	spe-cif-ic					

Activating Background Knowledge and Setting a Purpose for Reading

Anticipation Guide

Indicate “Agree” or “Disagree” for the following statements before reading the Technical Article. You will have the opportunity to revisit these statements after reading the text.

BEFORE READING		AFTER READING	
Statement	Agree/ Disagree	Agree/ Disagree	Text Reference/Paragraph #
It is realistic that a zombie-like infection will spread.			
Rabies symptoms are likely the closest thing to zombie symptoms that humans can experience.			
It’s believable that we will see a zombie virus in our lifetime.			
A zombie-like disease that spreads rapidly is just a scientific theory.			
It is possible that if ants can be infected with a zombie-creating fungus, other species can as well.			

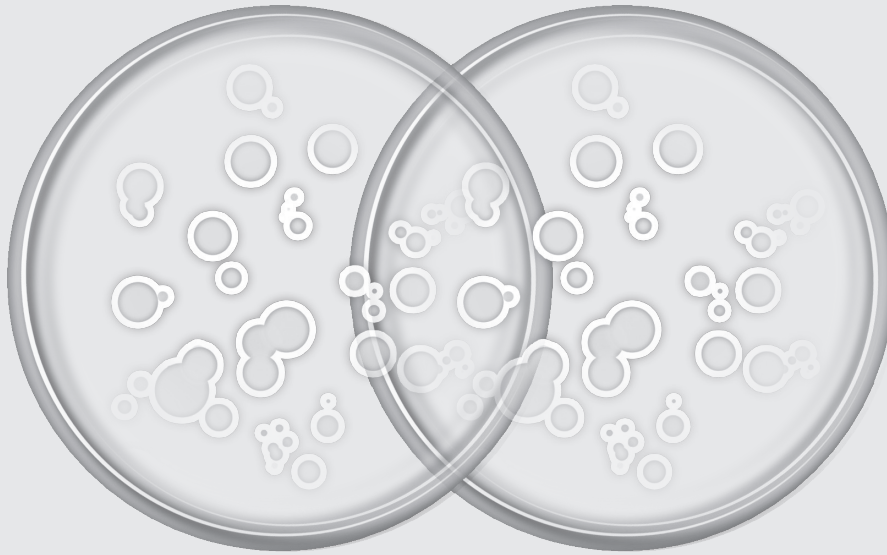
Graphic Organizer

Work in small groups to brainstorm about infectious disease, recalling anything previously learned and any prior experience with the subject. Use ideas generated to create a title and complete the graphic organizer.

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Title: _____

Rabies
Symptoms



Zombie
Symptoms

DURING READING

- Skim the passage and questions that follow.
- Read the article closely, marking words or phrases that are unfamiliar. Question, summarize, clarify, and predict, making marginal notes for each paragraph or section.
- Determine the meaning of unknown words by interpreting words and phrases within the context of the passage.
- Examine elements within the text that shape it, including structure, point of view, style, and relationships between ideas.
- Reread the article to determine central themes, marking textual evidence.
- Complete the graphic organizer in order to integrate and evaluate knowledge gained from the text.

AFTER READING

What words, if any, are you still confused about after reading the article? Try using decoding strategies, word structures, and context clues to read the unfamiliar words. Then revisit the Anticipation Guide to see if your views have changed after reading the text. Record evidence from the text to support your answers.

Essential Question Discussion

Discuss the essential question in small groups based on what you have learned so far from the unit. Add knowledge gained from the Technical Article as evidence to either support or reconsider your views.

How does the popularity of zombies relate to fear and the outbreak of infectious disease?

TECHNICAL ARTICLE

The Science of ZOMBIE VIRUS



Although it entered the world through witchcraft, the zombie as we know it today is becoming more closely related to the outbreak of disease. In fact, many of the undead in pop culture now don't even die before they become zombies. All it takes is a bite and a short **incubation** time. Then you have an army of infected people. In recent films like *World War Z*, *28 Days Later*, and even the video game *The Last of Us*, the enemy is the disease, not the zombies. So, could this disease become a real **phenomenon**? Are zombies real? Or is the whole topic just fiction?

The closest virus known today would be rabies. Max Brooks's best-selling *World War Z* features a zombie virus first mistaken for rabies. It is a virus spread through saliva. So all it takes is one bite to infect the victim. Once you start showing symptoms, it may be too late. This virus attacks the brain and creates psychological and physical symptoms. The mental symptoms include hallucinations, agitation, and a fear of water. The physical symptoms are fever, excessive drooling, and headaches. Rabies is curable, though deadly if not caught early. Untreated, it kills its host quickly. This leaves no chance for zombification. But Hollywood still loves to increase hype over the **potential** of a rabies mutation, as in *World War Z*.

Science actually seems to **deflate** the possibility of a zombie virus. One researcher of the Ebola virus, Kartik Chandran, says that a hybrid of the rabies virus could mimic zombiism. However, those viruses (for instance, a combination of rabies and Ebola) wouldn't be functional because the viruses aren't closely enough related. Among other possible

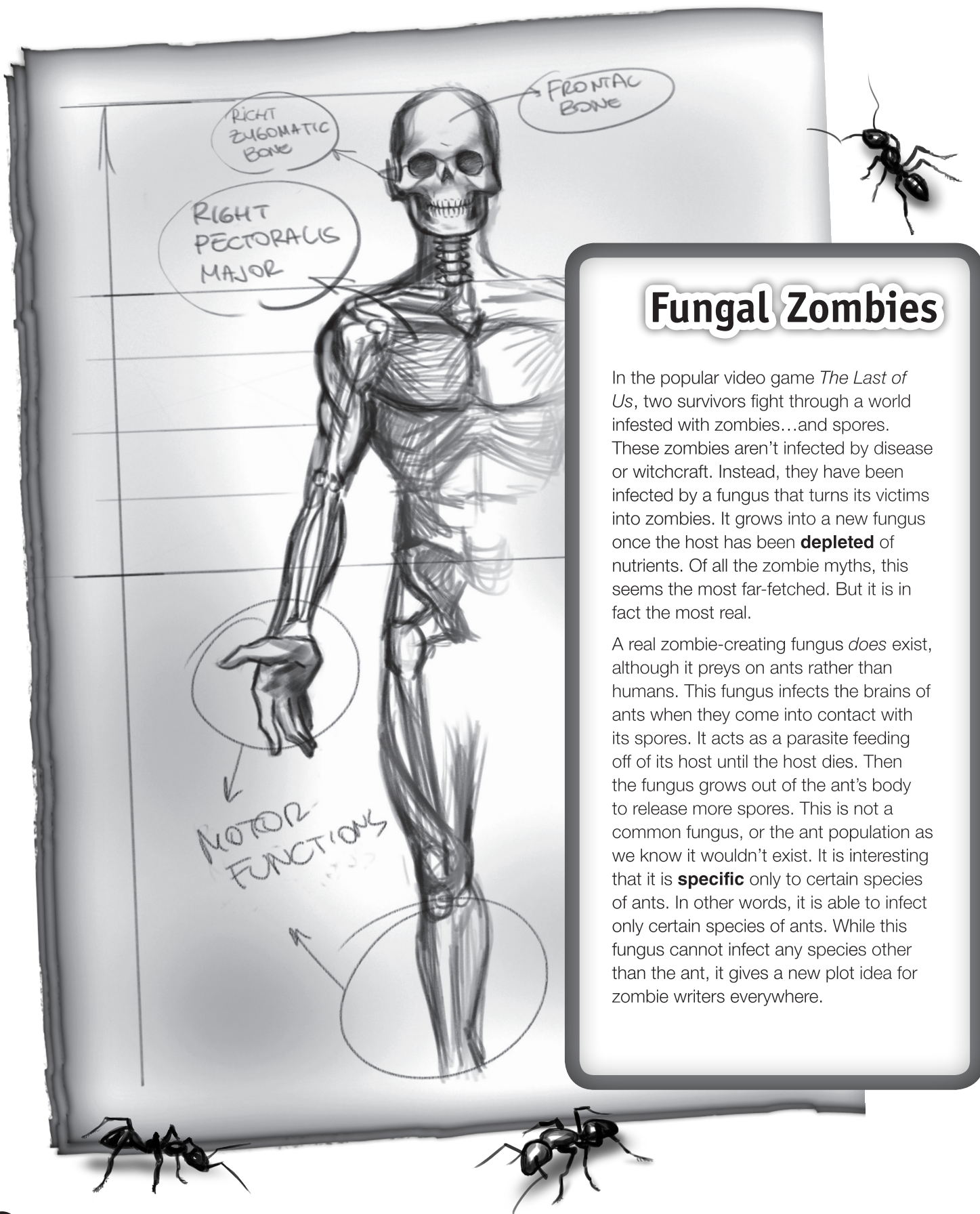
infections are viruses which mutate into stronger strains and eventually overpower other viruses. This is most common with the influenza virus—hence diseases like swine and bird flu—and does not happen very often.

So, what is this virus that the zombies in movies all seem to have? Are their symptoms **plausible**? Or are they simply part of the on-screen drama?

Dr. Steven Schlozman of Harvard set out to answer these questions in his book *The Zombie Autopsies: Secret Notebooks from the Apocalypse*. He breaks down the behavior of zombies, linking them with actual medical conditions. He says most of the undead's behavior starts with a brain **dysfunction**. Brain damage causes the shuffling walk of zombies. Unclear thoughts can be connected to **abnormalities** in the frontal lobe. The frontal lobe is also responsible for impulse decisions. This would explain a zombie's eagerness to bite its victims. As for how the virus spreads, Schlozman argues that a true zombie virus would need to spread through the air. This is **inconsistent** with the idea of zombification, which requires infection through saliva. All in all, these symptoms make for an illness that is completely unlikely.

Or is it?

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Fungal Zombies

In the popular video game *The Last of Us*, two survivors fight through a world infested with zombies...and spores. These zombies aren't infected by disease or witchcraft. Instead, they have been infected by a fungus that turns its victims into zombies. It grows into a new fungus once the host has been **depleted** of nutrients. Of all the zombie myths, this seems the most far-fetched. But it is in fact the most real.

A real zombie-creating fungus *does* exist, although it preys on ants rather than humans. This fungus infects the brains of ants when they come into contact with its spores. It acts as a parasite feeding off of its host until the host dies. Then the fungus grows out of the ant's body to release more spores. This is not a common fungus, or the ant population as we know it wouldn't exist. It is interesting that it is **specific** only to certain species of ants. In other words, it is able to infect only certain species of ants. While this fungus cannot infect any species other than the ant, it gives a new plot idea for zombie writers everywhere.

READING COMPREHENSION

After reading “The Science of Zombie Virus,” select the responses that best answer questions 1–9. Then read question 10 and construct a short response that is supported by textual evidence.

1. Closely reread this paragraph from the article.

“Science actually seems to deflate the possibility of a zombie virus. One researcher of the Ebola virus, Kartik Chandran, says that a hybrid of the rabies virus could mimic zombiism. However, those viruses (for instance, a combination of rabies and Ebola) wouldn’t be functional because the viruses aren’t closely enough related. Among other possible infections are viruses which mutate into stronger strains and eventually overpower other viruses. This is most common with the influenza virus—hence diseases like swine and bird flu—and does not happen very often.”

This excerpt serves to illustrate that

- A. rabies is unlikely to join with another virus in order to create a zombie virus.
 - B. it’s possible to combine viruses and create a new virus.
 - C. researchers are always trying to understand the scientific causes of zombification.
 - D. viruses can take on a life of their own.
2. Part A
- Which statement best reflects the central idea of the article?
- A. It is likely that a zombie virus will attack in our lifetime.
 - B. Medical researchers have almost cracked the zombie code.
 - C. Zombies are almost certainly created through a virus.
 - D. A zombie-causing virus is a popular story plot, but unlikely in reality.

Part B

Select three pieces of evidence from the Technical Article that support the answer to Part A.

- A. This is most common with the influenza virus—hence diseases like swine and bird flu—and does not happen very often.
 - B. Untreated, it kills its host quickly. This leaves no chance for zombification.
 - C. The psychological symptoms include hallucinations, agitation, and a fear of water.
 - D. This is inconsistent with the idea of zombification, which requires infection through saliva.
 - E. Or does it?
3. Part A
- According to the article, what impact have works of fiction had on the public’s view of zombies?
- A. The media turned public attention away from witchcraft toward infection as the cause of zombies.
 - B. The media has created widespread public fear of a zombie attack.
 - C. The media has turned zombie myth into truth.
 - D. The media has revealed the problems with zombie science.

Part B

Select two pieces of evidence from the Technical Article that support the answer to Part A.

- A. Although it entered the world through witchcraft, the zombie as we know it today is becoming more closely related to the outbreak of disease.
- B. The frontal lobe is also responsible for impulse decisions.
- C. A real zombie-creating fungus does exist, although it preys on ants rather than humans.
- D. In recent films like *World War Z*, *28 Days Later*, and even the video game *The Last of Us*, the enemy is the disease, not the zombies.

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4. Reread the following sentence from the article.

“Among other possible infections are viruses which mutate into stronger strains and eventually overpower other viruses.”

What is most likely the meaning of the word *mutate* as used in this sentence?

- A. improve
 - B. change
 - C. weaken
 - D. kill
5. Why does the author include the paragraph about Dr. Steven Schlozman’s research?
- A. to show why a zombie virus is likely
 - B. to highlight the illnesses that can lead to a zombie scare
 - C. to explain why zombies are so feared
 - D. to provide clear, medical reasons for zombie-like behaviors
6. What does the author’s choice to include the text box about the ant fungus reveal about her point of view?
- A. The author likely believes that a zombie outbreak is unlikely based on scientific evidence.
 - B. The author likely believes that zombies are not an important part of current pop culture.
 - C. The author likely believes that it is possible for a virus to change into a zombie outbreak.
 - D. The author likely believes that zombies were once real.
7. Look at this picture of a zombie.



Which statement from the article discussing Dr. Schlozman’s research does NOT relate to this picture?

- A. Brain damage causes the shuffling walk of zombies.
- B. This would explain a zombie’s eagerness to bite its victims.
- C. Unclear thoughts can be connected to abnormalities in the frontal lobe.
- D. As for how the virus spreads, Schlozman argues that a true zombie virus would need to spread through the air.

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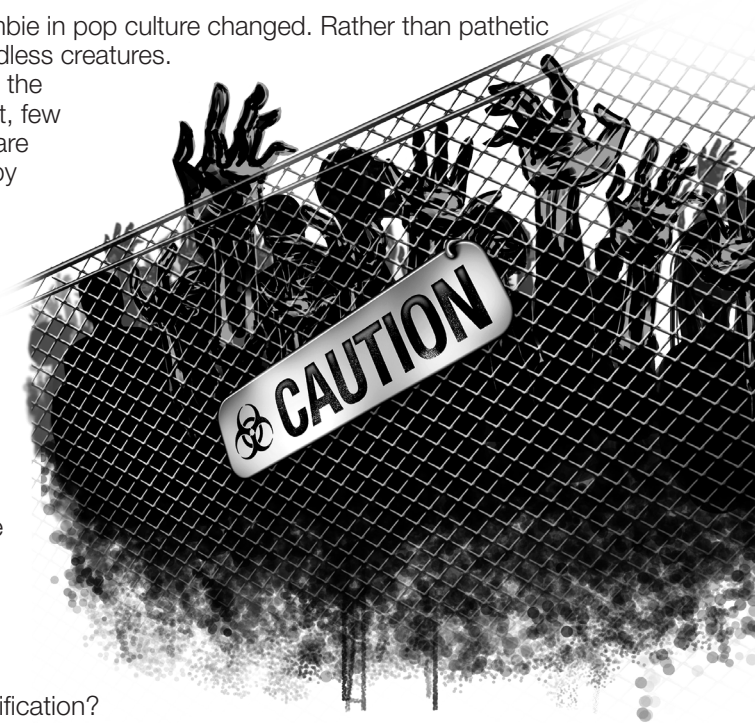
8. Which of the following statements from the article provides the best evidence that the ant fungus is not likely to lead to a zombie outbreak?
- A. It acts as a parasite feeding off of its host until the host dies.
 - B. A real zombie-creating fungus *does* exist, although it preys on ants rather than humans.
 - C. It is interesting that it is specific only to certain species of ants.
 - D. Of all the zombie myths, this seems the most far-fetched.

9. Closely reread this excerpt from the High-Interest Article.

“After Davis’s findings became public, the face of the zombie in pop culture changed. Rather than pathetic slaves, the undead now had the attributes of evil but mindless creatures. And rather than being the product of Voodoo, zombies in the 21st century were seen as the product of infection. In fact, few zombies today are seen as the returning dead. Zombies are now the result of an infected human. Some are infected by viruses like rabies. Others are infected by mold spores that infect the brain. Though there is no proof that zombies are real, they continue to bring fear and the unanswered question, ‘What if ...?’”

How does this passage relate to a zombie outbreak as it is presented in the Technical Article?

- A. The returning dead theory of zombies will be raised again in another culture.
 - B. Davis’s research led the public to take on the view of infected, evil zombies.
 - C. The passage proves that zombies will continue to be a part of pop culture even after the outbreak theory is disproved.
 - D. Zombies in fiction are often looked at as weak for giving in to infection.
10. According to the article, how does rabies compare to zombification?



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TECHNICAL WRITING PROMPT

You work in public relations for the Centers for Disease Control and Prevention (CDC). Recently, there has been a massive public outcry over a rabies outbreak in the Midwest. People fear that it may be a virus strain that could lead to a zombie outbreak. Your task is to write a press release to avoid public fear. Outline why citizens should not fear a zombie outbreak. Use at least four details from the Technical Article to convey your ideas clearly and accurately.



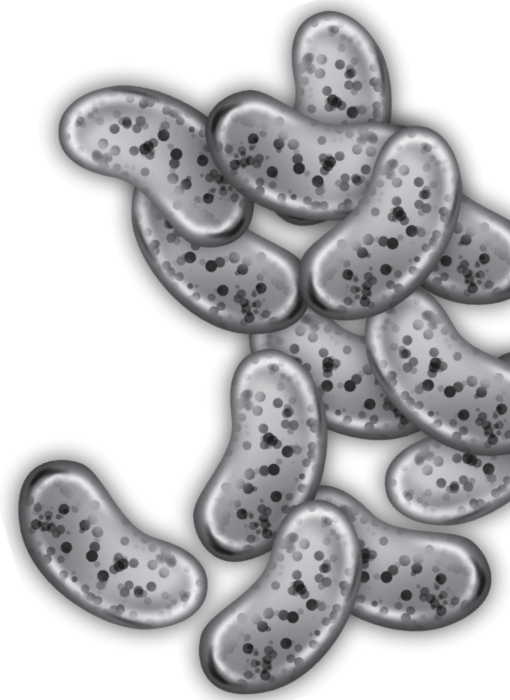
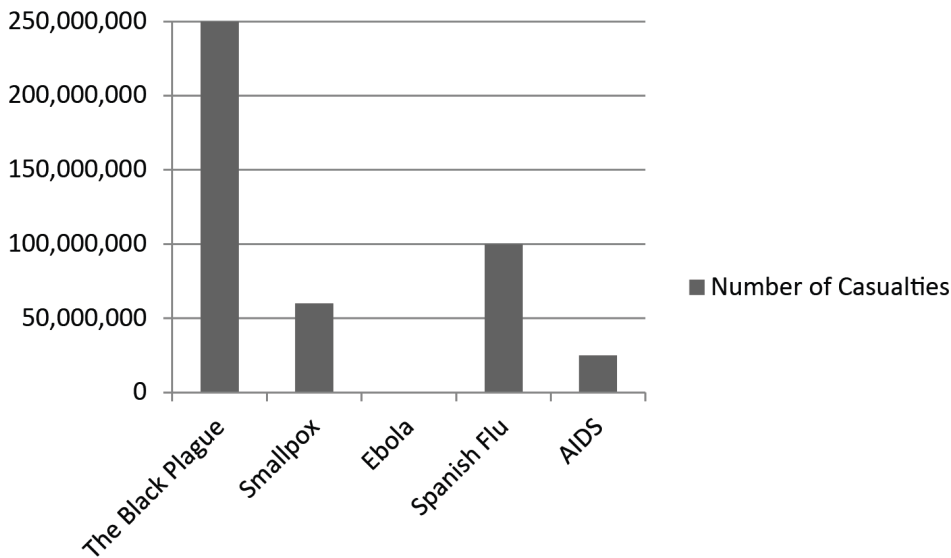
A large rectangular area containing 20 horizontal lines for writing, intended for the student to draft their press release.

INTERPRETING THE DATA

How have infectious diseases affected world populations in the past?

Many years ago, with little knowledge of germs, there were no medicines to prevent disease. Many of these diseases only died out as the result of time—resulting in high death rates. Let’s take a look at some of the most dangerous diseases in history and their effects on our world population over time.

Figure 1. Total number of casualties from 5 of the deadliest diseases



- Rank the diseases in Figure 1 by the number of deaths and write the total number of deaths for each disease. (Use Figure 1 to estimate where necessary. The number of Ebola deaths is provided below.)

- _____
- _____
- _____
- _____
- Ebola: 160,000

- At the time of the Black Plague, there were an estimated 450 million people living on the planet. If 250 million were killed by this disease, approximately what percent of the population was killed by the disease? Round your answer to the nearest hundredth.



Table 1. Flu deaths by year and age group

Year	Total deaths	Age 14 and under	Age 15–64	Age 65 and above
1998	1,724	23	110	1,591
1999	1,665	36	133	1,496
2000	1,765	30	189	1,546
2001	257	25	59	173
2002	727	24	66	637
2003	1,792	136	213	1,443
2004	1,100	49	107	944
Total:	9,030	323	877	7,830

3. According to Table 1, which age range has the highest death rate? Which age group shows the lowest death rate?

4. The CDC releases a yearly report highlighting groups they consider to be “at risk” for getting the flu virus. These groups have priority for getting the flu vaccine. On this list are young teens and all persons age 50 and older. Does the data in Table 1 support putting these groups on the list? Explain.

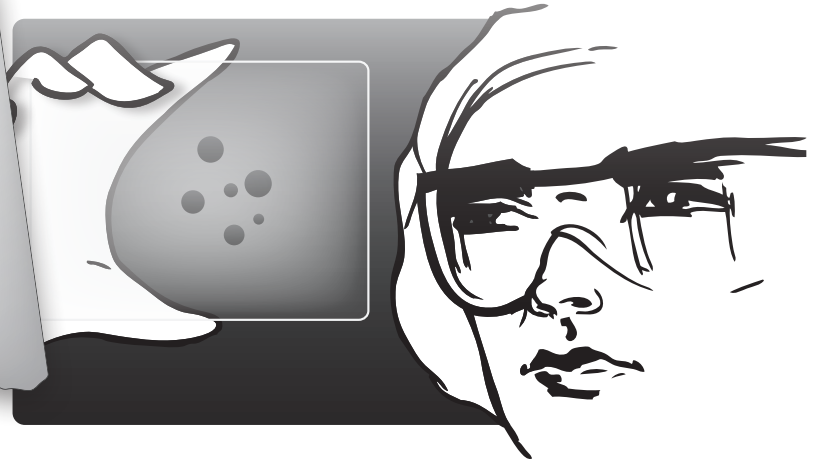
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ZOMBIES

COLLEGE AND CAREER ARTICLE

HELP WANTED

High school student for internship with CDC Pathways Program. This internship will take you inside the CDC and begin your federal career with mentoring, career development, and improved opportunities for progress.



Do you love science? Do germs and bacteria interest you? Do you find yourself curious about illnesses, how they work, and how we can cure them? If so, the CDC may have a career for you!

The United States **Centers for Disease Control** deals in some of the world's most dangerous illnesses. The CDC experiments with different strains of illnesses and creates vaccines. The CDC's scientists work hard to understand what makes us sick and what can cure us. With the latest technology, they wage war against diseases that affect our population, and even some that don't yet exist! Medical technicians work hard to find the causes of disease and create vaccines that work so that our population remains protected. Does this sound interesting to you?

While a medical career in the CDC *does* require medical training, there are many other jobs that are just as important and interesting. You can begin some of these straight out of high school. The CDC's STEP Program (Student Temporary Employment Program) helps teens break into the world of disease control. It offers career training that can lead you to a full-time job. After beginning here, you can be promoted through the government's employment system. You may have opportunities to work different jobs with the goal of preventing the spread of infection. Some of these jobs include public health advisor, public health analyst, and medical technician. Some of these roles require higher education, and there are several scholarships available. Top earners in these careers

can expect to earn up to \$130,000 a year. But you have to start somewhere. What better place than the CDC's Pathways Internship Program? Completion of the program is relatively easy and has the following requirements:

“Program Completion and Conversion

Interns may be converted to a permanent position ... within 120 days of successful completion of the program. Prior to this, interns must complete the following:

- *Complete at least 640 hours of work experience*
- *Complete their degree or certificate requirements*
- *Meet the ... standards for the position to which the Intern will be converted*
- *Meet ... requirements as specified in the Participant's Agreement, and*
- *Perform their job successfully.*

Agencies may waive up to 320 ... hours of work for Interns who demonstrate high potential as evidenced by outstanding academic achievement and exceptional job performance.”

So what are you waiting for? If you've got a passion for public service, this opportunity may be just what you need. Apply today!

UNIT VOCABULARY ASSESSMENT

Selected Response

Select the response that best answers each question.

1. Read this sentence from the High-Interest Article.

“Unfortunately, Davis’s research was not conclusive.”

Which word best replaces the word *conclusive* in this sentence?

- A. flawed
B. ancient
C. solid
D. popular

2. Read this sentence from the High-Interest Article.

“Rather than pathetic slaves, the undead now had the attributes of evil but mindless creatures.”

Which word best replaces the word *attributes* in this sentence?

- A. fears
B. curses
C. truths
D. qualities

3. Reread this sentence from the High-Interest Article.

“Bokors specialized in intimidation.”

Which word is the best antonym for the word *intimidation* in this sentence?

- A. fear
B. excitement
C. encouragement
D. bullying

4. Read this sentence from the Technical Article.

“So, could this disease become a real phenomenon?”

Which word is the closest in meaning to the word *phenomenon* as used in this article?

- A. incident
B. sorcery
C. thrill
D. marvel

5. Read this sentence from the Technical Article.

“Unclear thoughts can be connected to abnormalities in the frontal lobe.”

Which word or phrase from the sentence best helps the reader understand the meaning of *abnormalities*?

- A. lobe
B. unclear
C. frontal
D. connected

6. Read this sentence from the Technical Article.

“It grows into a new fungus once the host has been depleted of nutrients.”

Read the following structural clues.

de is a prefix that means “to remove from.”

plenus is a Latin root that means “full.”

What is the best meaning of the word *deplete*?

- A. to grow into
B. to use up
C. to infect with
D. to increase

ZOMBIES

Synonyms and Antonyms

Choose the word that best answers each question.

7. Which word is a synonym for *inconsistent*?
- A. unvaried
B. conflicting
C. professional
D. steady
8. Which word is an antonym for *plausible*?
- A. unbelievable
B. applauded
C. possible
D. credible
9. Which word is a synonym for *submission*?
- A. order
B. fear
C. yielding
D. infection

10. Read this sentence from the Technical Article.

“Science actually seems to deflate the theory of a zombie virus altogether.”

Which word could be chosen as an antonym of the word *deflate* in this sentence?

- A. expose
B. verify
C. explain
D. inflate

Sentence Completion

Choose words from the word bank that best fill in the blanks in each sentence.

WORD BANK

acknowledge

hieroglyphs

incubation

neurotoxin

recovery

revive

sorcerer

11. A _____ claimed to be able to _____ the dead, thus creating a zombie. But Dr. Davis believed they used a special _____ to create the death-like state.
12. Rabies has a fast _____ period, so there is little chance of _____ if not treated quickly.
13. _____ found on Easter Island led historians to _____ that zombies have been a myth of many generations.

Sentence Composition

Correctly use each given vocabulary word in a sentence.

14. dysfunction

15. potential

16. specificity



AUTHENTIC ASSESSMENT

Students will work on a collaborative project using the unit “Zombies.”

Instructions for Outbreak!

1. **Selection.** Students will be assigned to groups of 3 to work on this project.

In Max Brooks’s book *World War Z*, one of the key ingredients for surviving the zombie outbreak was that the government had a strong prevention plan. For this activity, students will individually choose neighboring countries, research them, and come up with a collaborative plan for protecting their nation’s population from Zombie Outbreak.

In the planning stages, the students should analyze a world map and carefully select their three nations. They must be neighboring, but they do not need to be allied, as long as an alliance is created and presented as a part of their Prevention Plan.

2. **Research and planning.** Students will spend time researching their individual nations. Important details to cover include:

- Population
- Natural resources
- Geographic elements (For instance, the Rocky Mountains provide a significant natural barrier.)
- Wealth
- Military resources

Using the information gathered about their respective nations, students will come up with a plan in which they achieve the following:

- Containment of the outbreak
- Acquirement or development of a vaccine
- Protection of the population
- Maintaining government control

The students’ projects should be presented on a poster board, including at least one map displaying the three chosen countries.

3. **Presentation.** After researching and collaborating successfully, students will present their plans to the class, describing in detail how they plan to use their collective nation’s resources and capabilities to protect their populations and contain the infection. Students’ projects should be able to answer the following questions:

- Did you successfully eradicate the virus?
- How did you develop or import a vaccine?
- How did you use your nation’s natural resources and geography while creating your plan?
- Did your government remain stable and in power through the epidemic, or did a new government take its place?
- Did your nations remain sovereign and protected? Or did you merge to make protection easier?

4. **Assessment.** Work will be assessed using the Authentic Assessment Rubric.



RUBRICS

Reading Short-Response Rubric

2 points	The student fully understands what is being asked for. The student's answer is correct, complete, and addresses all aspects of the assigned task. The student provides detail and support from the text in order to support his/her answer. Any additional information provided by the student is related to the assigned task and acts as support for his/her response.
1 point	The student partially understands what is being asked for. The student's answer is correct; however, it is generalized and not specific enough. The student is missing any specific details and support from the text that would prove his/her full understanding of the text and the assigned task.
0 points	The answer is completely incorrect, has nothing to do with the assigned task, or no answer is provided.

Interpreting the Data Short-Response Rubric

2 points	The student fully understands what is being asked for. The work is completed correctly and efficiently. There is a full demonstration of the know-how necessary to accurately answer the problem provided. If applicable, the explanations and interpretations are clear, complete, concise, and based on provided data. Any small mistakes do not take away from the overall display of understanding.
1 point	The student seems to understand what is being asked for, but the answer is only partially correct and shows limited understanding of the provided data. The answer may be correct, but it is apparent that there is a lack of full awareness in the know-how necessary to complete the problem. Or there is a full awareness of the know-how necessary to complete the problem, but the answer is incorrect.
0 points	No answer is provided, the answer is completely incorrect, or there is absolutely no demonstration of the know-how necessary to complete the problem (even if the answer provided is correct).

Character Education Extended-Response Rubric

4 points	The student makes a reasoned and compelling claim about character, providing relevant evidence from the text and using appropriate tone for the audience.
3 points	The student makes a reasoned and arguable claim about character, providing textual evidence, and using appropriate tone for the audience and task.
2 points	The student makes a somewhat reasoned and emerging claim about character, providing some textual evidence and demonstrating little awareness of tone for the audience and task.
1 point	The student makes an unidentified or unsupported claim about character, providing little textual evidence, and/or using inappropriate tone for the audience or task.



Integrate and Evaluate Extended-Response Rubric

4 points	The student skillfully integrates and evaluates content presented in diverse formats and media, and produces clear and coherent writing with development, organization and style appropriate to the prompt. The student supports his or her analysis and reflection by using an abundance of relevant facts from the text.
3 points	The student competently integrates and evaluates content presented in diverse formats and media, and produces mostly clear and coherent writing with development, organization and style appropriate to the prompt. The student adequately supports his or her analysis and reflection by using relevant facts from the text.
2 points	The student insufficiently integrates and evaluates content presented in diverse formats and media, and then produces somewhat clear and coherent writing. The development, organization and style may be unsuitable for the task at hand. The student writes inaccurate or incomplete statements that rely on few relevant facts from the text.
1 point	The student does not integrate and evaluate content presented in diverse formats and media, and then produces unclear writing with development, organization and style that is unsuitable for the task at hand. The student writes inaccurate statements that do not rely on facts from the text.

Technical Writing Extended-Response Rubric

4 points	The student clearly and concisely conveys complex ideas and information in a way that shows a keen understanding of the specific audience/purpose and supports general statements with an abundance of relevant facts from the text.
3 points	The student communicates complex ideas and information in a way that shows a general understanding of the specific audience/purpose and supports statements with a sufficient number of relevant facts from the text.
2 points	The student communicates ideas and information in a way that is unclear, shows limited understanding of the audience/purpose, and/or uses few relevant facts from the text.
1 point	The student communicates ideas and information in a way that is unclear, shows minimal understanding of the audience/purpose, and/or uses very few facts from the text.

Looking Forward Extended-Response Rubric

4 points	The student draws evidence from information texts in order to write clear and coherent (1) arguments to support claims, (2) informative texts to convey complex ideas and/or (3) narratives. The student supports his or her analysis and reflection by using an abundance of relevant facts from the text.
3 points	The student draws evidence from information texts in order to write mostly clear and coherent (1) arguments to support claims, (2) informative texts to convey complex ideas and/or (3) narratives. The student supports his or her analysis and reflection by using many relevant facts from the text.
2 points	The student writes somewhat clear and coherent (1) arguments to support claims, (2) informative texts to convey complex ideas and/or (3) narratives with little evidence from the text. The student is limited in support of his or her writing, using many few facts from the text.
1 point	The student writes unclear (1) arguments to support claims, (2) informative texts to convey complex ideas and/or (3) narratives with no evidence from the text. The student does not support his or her writing with relevant facts from the text.



Authentic Assessment Rubric				
Requirement	Exceptional- 3	Proficient- 2	Emergent- 1	Score
Comprehension and Collaboration	The student collaborates effectively with others, and is able to integrate and evaluate information successfully.	The student collaborates sufficiently with others, and adequately integrates and evaluates information.	The student has difficulty collaborating with peers, and/or is not successful integrating and evaluating information.	
	The student successfully evaluates others' viewpoints, reasoning and evidence presented.	The student adequately evaluates peers' viewpoints, reasoning and evidence.	The student insufficiently evaluates others' viewpoints, reasoning and evidence.	
Presentation of Knowledge and Ideas	The student's presentation includes abundant supporting evidence with effectual organization, development and appropriate style of speech and/or writing.	The student's presentation includes sufficient supporting evidence. The organization, development and style are generally effective and appropriate.	The student's presentation is lacking in supporting evidence. It is missing key elements of organization, development, and/or uses style not suited to the audience or task.	
	The student successfully uses digital and visual media where appropriate.	The student makes effective use of digital and visual media where appropriate.	The student's use of digital and visual media is lacking or not appropriate to the task or audience.	

Essential Question Extended-Response Rubric	
4 points	The student proficiently synthesizes knowledge learned from unit texts in order to write a clear and coherent response to the essential question. The student skillfully supports his or her analysis with relevant facts from the text.
3 points	The student synthesizes knowledge from unit texts in order to write a mostly clear and coherent response to the essential question. The student adequately supports his or her analysis and reflection with relevant facts from the text.
2 points	The student minimally synthesizes knowledge from unit texts in order to write a somewhat clear response to the essential question. The student offers limited support for his or her analysis, using few facts from the text.
1 point	The student does not synthesize knowledge from unit texts and/or writes an unclear response to the essential question. The student does not support his or her writing with relevant facts from the text.

ZOMBIES

NOTES

High-Interest Article

But these creatures...: Radford, Benjamin, "A History of 'Real' Zombies," Discovery News, June 4, 2012, <http://news.discovery.com/history/history-zombies-12-6-4.htm>.

And they were...: Radford.

As part of...: Radford.

When these myths...: Estes, Adam Clark, "A Brief History of Zombies," The Wire, October 31, 2012, <http://www.theatlanticwire.com/entertainment/2012/10/brief-history-zombies/58574/>.

This cruelty created...: Radford.

Dr. Wade Davis...: Radford.

In order for...: Wilson, Tracy, "How Zombies Work," <http://science.howstuffworks.com/science-vs-myth/strange-creatures/zombie1.htm>.

Despite the differences...: Wilson.

Davis believed this...: Wilson.

This state was...: Wilson.

Unfortunately, Davis's research...: Radford.

In Ireland, the (text box)...: Wilson.

They believe that (text box)...: Wilson.

In China, the (text box)...: Radford.

Finally, in Scandinavia (text box)...: Radford.

High-Interest Reading Comprehension Questions

Question 7 quotation...: "The Story of the Zombie in Haiti," from Man: A Record of Anthropological Science in 1945, <http://www2.webster.edu/~corbetre/haiti/voodoo/mars-zombie.htm>.

Question 9 quotation...: "Zora Neale Hurston Interview: Famous Author Discusses Zombies (VIDEO)," Huffington Post, January 8, 2013, http://www.huffingtonpost.com/2013/01/08/zora-neale-hurston-zombies-_n_2431526.html.

Technical Article

It is a...: "Rabies," Centers for Disease Control and Prevention, "<http://www.cdc.gov/rabies/>.

The mental symptoms...: "Rabies."

Rather than being...: "Rabies."

One researcher of...: Dell'Amore, Christine, "World War Z: Could a Zombie Virus Happen?" National Geographic News, Pop Omnivore, <http://newswatch.nationalgeographic.com/2013/06/25/world-war-z-could-a-zombie-virus-happen/>.

Among other possible...: Dell'Amore.

This is most...: Dell'Amore.

Dr. Steven Schlozman...: Gannon, Megan, "Behind the Undead Apocalypse," LiveScience, August 8, 2013, <http://www.livescience.com/38753-dr-zombie-science-behind-the-undead-apocalypse.html>.

He says most...: Gannon.

Brain damage causes...: Gannon.

This is inconsistent...: Gannon.

Fungal Zombies (text box)...: "Deadly Fungus Turns Ants into Zombies," Discovery News, March 3, 2011, <http://news.discovery.com/animals/endangered-species/zombie-ants-fungus-amazon-110303.htm>.

Technical Article Reading Comprehension Questions

Interpreting the Data

Figure 1...: "Top 10 Worst Diseases," ListVerse, November 15, 2007, <http://listverse.com/2007/11/15/top-10-worst-diseases/>.

Table 1...: "Flu Myths," SailHome.org, http://www.sailhome.org/Concerns/Vaccines/Flu_Myth.html.

College and Career Article

Article: http://www.cdc.gov/employment/menu_student.html

Salary figure: <https://www.usajobs.gov/GetJob/ViewDetails/333542400>

Copied Intern Requirements: <http://www.opm.gov/policy-data-oversight/hiring-authorities/students-recent-graduates/#url=intern>