

## Listen and Learn



Do you think you would be persuaded more easily by evidence or by a strong emotional appeal?

Can you think of a time when one might be a stronger persuasive factor than the other?



## **Con: Against Cancelling Manned Missions**

Imagine the sadness that space shuttle astronauts must have felt when the space shuttles they had once flown in were moved to museums. Consider what those astronauts might feel while watching kids play on multimillion-dollar space shuttles that still could fly, if given the chance.

In January 2004, President George W. Bush announced that NASA would no longer be sending manned shuttles into space after 2010. President Barack Obama followed through on retiring the NASA space shuttles, and on July 21, 2011, the last NASA space shuttle to fly, *Atlantis*, returned to the Kennedy Space Center in Florida, marking the end of an era.

The United States needs to get back into manned missions. Without a way to launch astronauts into low-Earth orbit, our country risks losing its status as a global leader.

France, Germany, and Italy are working as part of the European Space Agency to maintain their stake in space.

Frankly, the United States, once a leader in the so-called space race, is falling behind.

Right now, Russia has a monopoly on transporting people to and from the International Space Station. The country owns Soyuz capsules and Progress freighters, rockets that have the best track record in the world. NASA has to rely on the Russians to carry astronauts and materials to the International Space Station. Although the United States was the first nation to put someone on the moon, we are obviously falling far behind our counterparts. A country as powerful as ours should not have to rely on less powerful nations.

#### ARGUMENT AND POINT OF

view An argument is a stated opinion that reflects the author's point of view about a subject. In persuasive texts, an author states an argument and then supports it using evidence and persuasive techniques. What is the author's point of view about the U.S. decision to end its space shuttle program?

**AUTHOR'S BIAS** Authors reveal their feelings through their writing. If they make a personal judgment about a topic or lean toward one side of an issue, this is called bias. What is the author's bias in paragraph 4 regarding the United States and Russia?

obviously falling as powerful as powerful nation

2021 Lesson 11 • Reading of hasive Nonfiction

Beenlang Ja At the same time we announced that we would end our manned space shuttle endeavors, other countries announced that they would initiate aggressive plans for their space programs. Even China, still considered by many to be a developing country, has been flying manned missions into space since 2003. China has its own rockets and spacecraft, as well as its own small space station that will lead to a full-size station in the near future. China is planning exploration of the moon, something that the United States can no longer do now that our nation has retired its manned-mission program. Our country needs to get humans back into space!

The space shuttles that we currently have were built future. The shuttles coulcheaply, but our country making them reusable. So into retirement while they retirement of the space ship people being forced to take forties. In both cases, invess made for long-term gains. Vall the money on building space shuttles, only to give a mandate to retire the shuttle to museums? Why are we pulling out of space exploration right at the most exciting time in space-exploration history? to last for decades. The United States spent an enormous amount of money on them as an investment for the future. The shuttles could have been produced more cheaply, but our country chose to invest in our future by making them reusable. So why are we putting space shuttles into retirement while they are still useful? Compare the retirement of the space shuttles to highly trained and skilled people being forced to take early retirement, perhaps in their forties. In both cases, investments of time and money were made for long-term gains. What is the point of spending

My Marie Mar In 2004, George W. Bush cancelled manned space missions.

#### **TYPES OF EVIDENCE**

Authors use different forms of evidence to support their arguments. For example, authors may use statistics, case studies, anecdotes, and expert opinions. In paragraph 5, anecdotal evidence is used to compare the United States to China. Why is this anecdotal evidence persuasive?

anecdote: - a short & amusing or interesting story about a real incident or person - an account regarded and unelable or hearsay



adamina

#### **PERSUASIVE TECHNIQUES**

Writers use various techniques to persuade their readers to think or act a certain way. One persuasive technique is to provide generalities. For example, the author is comparing the money the United States spends on wars to the money that could be spent on space-shuttle missions. However, the author does not go into detail about the reasons for fighting wars or the amount of money involved. What other generalities does the author include to persuade the reader?

**COUNTERARGUMENT** 

An effective persuasive text addresses counterarguments, or arguments the author feels others may raise against his or her own claim. Paragraph 9 presents a counterargument—an argument against the author's claim that the United States should not close down the manned space program. What is the counterargument, and how does the author address it?

Why 15700 hviretu. The United States has spent an exorbitant amount of money fighting wars. In fact, when President Bush decided to end the space shuttle missions, we were in the midst of a war that was very expensive. Considering the amount of knowledge that we stand to gain from manned space shuttle flights, why does the United States spend its valuable resources fighting wars? Humanity has been fighting wars since the beginning of time. Why not work together with other countries in a peaceful manner to try to understand what else is out there in our universe? What lies beyond the asteroid belt? What life might we find in other galaxies?

Maybe we can even find alternate energy sources.

In fact, the space shuttle program has actually saved us money. When the space shuttles were sent into space to repair the Hubble Space Telescope, the mission was successful and saved the United States tens of billions of dollars. Our country did not give up on the Hubble and put it in a museum. Rather, we fixed the telescope and avoided having to send a new one into space. This example shows that it is possible to keep our current equipment, make enhancements, and continue with our exploration of space.

Policymakers seem to think that the United States won't fall behind because private companies can take over where NASA left off. This is a joke! Forty years ago, the British government decided to cancel its rocket program, though it

helped support the efforts of some private companies. Since that time, Britain has had nothing to show in terms of progress in space exploration. Imagine all the information and knowledge that the British could have obtained through a government-funded space program. All of that was lost when Britain pulled out of the space race.

NASA saved money by sending astronauts in a space shuttle to repair the Hubble Space Telescope.



# The other side -

## **Pro: For Cancelling Manned Missions**

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It takes wisdom to know when to change course.

Because the U.S. space program has had many problems we support NASA's cancellation of manned missions and its encouragement of private enterprise in furthering our nation's space-exploration goals. The current economic challenges make this a particularly good idea for our nation.

The space shuttles were designed for a task other than what they wound up doing. The shuttles were supposed to launch twenty-four missions per year that included carrying NASA's scientific experiments into space, launching military spy satellites, and providing satellite assistance to private businesses. The space shuttle missions did little but tote cargo to space stations at a cost of about \$20,000 per pound.

The missions were also not as frequent as they were supposed to be, and in 1986, the space shuttle Challenger exploded, leading many people to question the shuttles' safety. After the Challenger tragedy, the military no longer requested the help of NASA shuttles, and the president at that time, Ronald Reagan, ordered NASA to stop providing satellite assistance to private businesses. Therefore, there were fewer purposes for sending shuttles into space.

While July 21, 2011, marked the end of the NASA space shuttle program due to lack of funding and purpose) it certainly did not end the enthusiasm we, as Americans, have for space exploration.

Although President Barack Obama's decision to end the program followed through on the 2004 decision made by President George W. Bush, it appears that President Obama is looking forward to the greater goal of traveling to farther places in space (and having private companies foot the bill). Although our country can no longer financially support the NASA space missions, our goals for the future are ambitious. We hope to explore the rest of the solar system. However, only private enterprises with sufficient capital can take us there.

Persuade

**ARGUMENT** What is the main argument, or claim, that the author makes? What are two pieces of evidence the author provides to support the argument?

persuasive text, the author may provide evidence to support opinions, but <u>readers</u> need to be careful to evaluate the evidence to ensure reliability. What evidence would help you to better determine if the missions were useful or not?

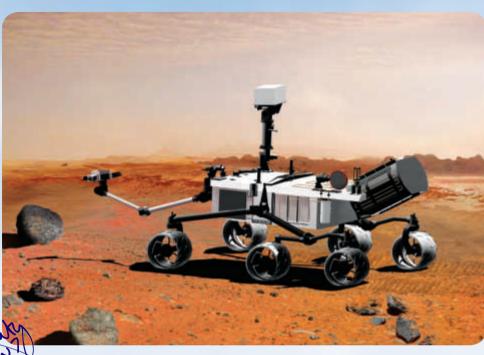


President Obama would like private companies to take us farther than the moon.

**AUTHOR'S PURPOSE** An author's purpose for writing can be to inform, entertain, persuade, express, or explain. What is the author's purpose in this section of the article?

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**NASA's Mars** Science Laboratory mission features a rover called Curiosity.



Social real?

ons that your

answer In recent years, our country has been struggling to maintain economic stability, provide enough jobs for everyone, and meet the American people's social need. In contrast, for many years in the past, our nation spent billions of dollars on space exploration. We have yet to make any significant contributions to humanity as a result of this investment. Passing the torch to private enterprises that are interested in funding space exploration is not only

nations, including ours—how to create a space program that can work. They have learned through observation, and that is just what we could do as a nation—learn from observing instead of actively participating in the race. If the United States steps back a little, perhaps our nation can make a eaps in the future.

#### **INCOMPLETE EVIDENCE**

Good persuasive writers support their arguments with clear factual evidence. The writer claims that the British pulled out of the space race but have learned how to create a space program that can work. What evidence to support that claim

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Listen and Learn

As a business model, the free-enterprise system encourages innovation. If private companies were given free rein over space exploration, who knows what competition might lead to? Perhaps a zealous company would feel the need to start a colony on Mars. To make this vision a reality, this private company would have much less political bureaucracy and red tape to deal with than a government agency would. Because private enterprise does not have to get approval from Congress, endeavors into space could happen more quickly, efficiently, and inexpensively.

Russia has its own space program, and it offers seats aboard its vehicles to private enterprises. For example, the American company Space Adventures will use Russian spacecraft called Soyuz to fly tourists around the moon. The first such flight is scheduled for 2015.

Many other private companies have ways of making space travel possible. The U.S. company SpaceX built two rockets that can accomplish what government-funded NASA programs historically have done to get individuals to the International Space Station. Another company, Orbital Sciences, is building a cargo rocket for shuttling supplies to the International Space Station. Other U.S. companies, such

as Boeing, Sierra Nevada, Bigelow Aerospace, and Virgin Galactic, have all been developing passenger or cargo rockets meant to transport people or goods into space.

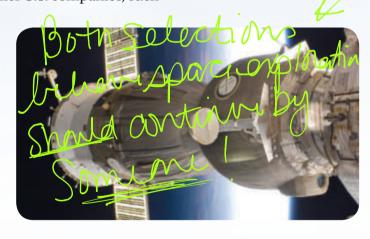
So while it might seem sad that NASA shuttles are housed in museums and no longer used for manned space missions, it is a great time to celebrate private enterprise. In the next fifty years,

nearly anything will be possible. With a little ingenuity and creativity and a lot of hard work, your grandchildren may be colonizing a new planet, and not at the taxpayers' expense.

00000! Heavy hitting conclusion making Judgments When reading a persuasive piece, readers must be prepared to make judgments about the author's argument and the evidence provided. Is the author's argument in favor of the private-enterprise system effective? Explain why or why not.

#### **COMPARE AND CONTRAST**

**TEXTS** To better understand texts, it is important to compare and contrast main ideas. What are the two main ideas that can be contrasted in the Con and Pro sections? Do the two sections have anything in common?



Private companies are now building rockets and providing the means to move people and cargo into space.

Not!

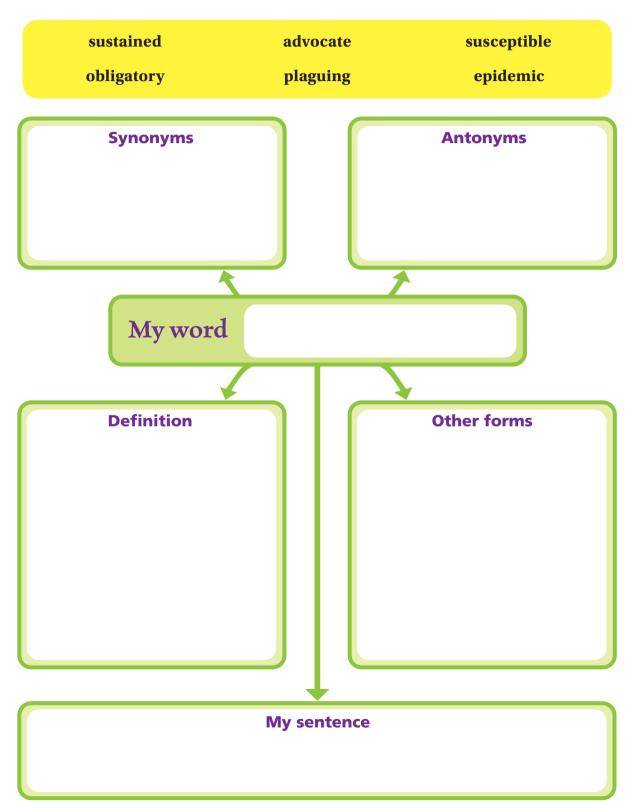
## **Comprehension Check**

Look back at the pro and con arguments in "NASA's Recent Cancellation of Manned Missions." Pick out three of the most convincing arguments for the cancellation (Pro) and three of the most convincing against it (Con). Write them in the appropriate columns. Provide supporting evidence for the arguments where you can.

Pro	Con
	•

## **Vocabulary**

Use the word map below to help you define and use one of the highlighted vocabulary words from the Share and Learn selection you are about to read or another word you choose.



## Share and Learn

### **Consider** ▶

How are the arguments presented in "NASA's Recent Cancellation of Manned Missions" structured differently from those in "Contact Sports and Concussions"?

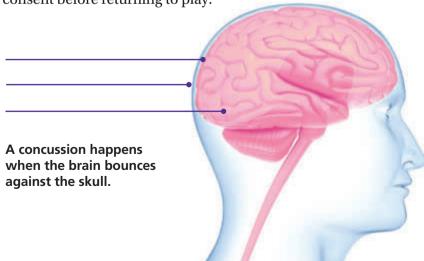
## **Contact Sports** and Concussions

Concussions have recently begun to receive the serious attention they deserve. These jarring injuries to the brain are among the leading causes of death and disability in sportsrelated accidents. A concussion is a serious brain injury that is the result of a blow to the head that concusses, or shakes, the brain inside the skull. There are often no immediate signs of brain injury, and usually only a doctor can determine if a person has sustained a concussion. Some people will experience headaches and forget recent events after a concussion. Some will recover within a few hours, while others may take weeks to recover. On rare occasions, patients suffering from concussions may require surgery or experience long-term problems, such as the inability to move or speak.

The brain is a spongy organ. It is surrounded by spinal fluid, which acts like a protective cushion around the brain. When the head receives a strong blow, however, the brain can crash against the skull and be injured. Some symptoms include being disoriented, nervous, or upset. A person who has sustained a concussion needs to get immediate care, although the best way to care for a concussion is to get rest. A person with a concussion must also stay clear of any contact sports and have a doctor's consent before returning to play.

#### **VISUAL INFORMATION**

Using information in paragraph 2, label the visual representation of the head with the words brain, spinal fluid, and skull.



Some people say that violence is a key part of contact sports, and that the protective gear that athletes wear is more than enough to eliminate serious health risks. But thinking that helmets, even the most high-tech ones created today, can protect brains from all harm is absurd. The reality is that stronger rules of play are needed to protect players, especially younger athletes, from excessive contact during sports. This is the only way to prevent long-term damage to young people's brains. Players must play by the rules set forth, and those rules must be evaluated regularly. Without stronger rules to protect players' heads from injuries, concussions will only become more routine.

Prior to 1905, college football players wore little protective gear. Unfortunately, there were many football-related deaths, all resulting from players not being sufficiently padded and helmeted. In 1905, President Theodore Roosevelt urged college administrators to require more protective gear, especially for the head. With the threat of the college sport being banned, the American Football Rules Committee was formed in 1906, and the rules of the game were officially changed. This was a wise decision, leading, among other things, to the widespread use of helmets, which made playing the game safer.



**ARGUMENT** Underline the author's argument, or claim, in paragraph 3.

#### COUNTERARGUMENT

How does the author anticipate and contend with a counterargument on this page?

**TONE** Circle the words on this page that convey the author's tone, or attitude. Describe the tone.

#### **FACT VS. OPINION**

Underline the facts in paragraph 4. Circle the opinion.

Football players in the early 1900s wore little protective gear.

**POINT OF VIEW** What is the author's point of view regarding middle school and high school football teams?

#### **PERSUASIVE TECHNIQUES**

In paragraph 5, a generalization is made that no children under the age of fourteen should be allowed to play contact sports. What evidence does the author provide to support this generalization?

#### **EVALUATE EVIDENCE**

What would make the evidence in paragraph 6 stronger?

Today, younger players are also required to wear helmets. Yet, the question remains: Should these younger athletes be playing contact sports at all? A concussion specialist, Dr. Robert Cantu, advocates that no children under the age of fourteen be allowed to play contact sports. His reasoning is that their young brains are more susceptible to concussion. Other concussion specialists say that school teams should not be playing football, soccer, or hockey without a certified athletic trainer and doctor on hand. Some high school teams are overly aggressive, especially in football, and if having this medical support is a requirement of the National Football League (NFL), then it should be obligatory for all middle school and high school teams as well.

Contact sports-related concussions have been plaguing our country for decades, and those who have struggled with resulting brain injuries have often done so quietly. Sports-related brain injuries are sometimes referred to as the "silent epidemic." Why? Some repetitive brain injuries result in impulse-control disorders, while others cause mental dullness. Symptoms of brain injuries may be subtle and hard for the victim to identify, and a colleague or loved one may be hesitant to point them out.

People who struggle with the consequences of a brain injury may also be afraid to appear, for lack of a better word, dumb. Many sports stars who have suffered concussions and loss of brain function prefer to remain quiet about their injuries. However, a number of sports stars are beginning to speak up about the dangers of contact sports and the need for head safety. They are sharing their stories in hopes of helping others.

> **Concussions are common** in soccer and other contact sports.



In 2009, congressional hearings questioned the NFL's safety regulations due to a growing number of reported concussions and the dangers that exposed players to them. The NFL is now trying to outlaw the most violent tackles from the game. These include shots to the head, late hits, and overly hard hits on receivers, as these types of hits are the most likely to cause long-term damage to the brain. Yet, even if these tackles are disallowed, repeated blows to the head sustained by players will, no doubt, cause long-term brain damage or dementia. Thus, the NFL has reduced the number of full-contact practice sessions for its players, which will help.

College athletics are moving in this direction as well. Yet there are still many problems at the high school level due to athletic trainers who do not understand concussions, as well as a lack of health experts in the field. Every year, hundreds of high school players suffer serious head injuries, and about 70,000 sustain concussions. What are the long-term effects? Because comprehensive studies have only recently begun, no one really knows yet. Although helmets are harder and stronger, contact-sports players have become bigger and stronger, not to mention faster. The only way to prevent brain injury is to change the way the game is played.



#### **DRAW CONCLUSIONS**

What conclusion can you draw about the author's point of view regarding the new NFL rulings?

**ARGUMENT** What are the arguments the author provides in paragraph 8?

#### **TYPES OF EVIDENCE**

What types of evidence does the author include to support the argument in paragraph 8?

#### PRIMARY VS. **SECONDARY SOURCES**

What differences are found in the information about concussions between the primary and secondary source?

#### **COMPARE AND CONTRAST TEXTS**

How does the language in the primary source material differ from the text in the rest of the selection?

#### **AUTHOR'S PURPOSE**

What is the author's purpose for including the football rules and regulations? How is it different from the author's purpose in writing "Contact Sports and Concussions"?

#### **MAKING JUDGMENTS**

Does including a primary source make the selection more effective? Explain.

Rules have continued to change. In 1905, with the help of Theodore Roosevelt, the National Collegiate Athletic Association (NCAA) was established, and rules were enacted to protect college football players from overly rough play. The rules continue to evolve. A few years ago, the NCAA created its NCAA Football Rules Committee Action for 2010. In this report, more rules were provided to protect players, especially concerning contact to the head.

#### PLAYER SAFETY

#### **Injured Player Procedures**

When a player incurs an injury including showing signs of a concussion, the officials will declare a timeout and the player must leave the game. He may not return until he receives approval of an appropriate medical professional designated by his institution. Relevant editorial modifications will be made to Rule 3-3-5, called "Injury Timeout." When available from the NCAA's health and safety staff, an appendix will be distributed and added to the next revision of the rules book to assist with recognition of a concussion.

#### Strengthening of Existing Rules Regarding Targeting and Initiating Contact

Editorial clarification for 2010: Current Rule 9-1-3 replaced by 9-1-3 and 9-1-4, as follows:

#### Targeting/Initiating Contact with Crown of the Helmet ARTICLE 3.

No player shall target and initiate contact against an opponent with the crown (top) of his helmet. When in question, it is a foul.

PENALTY—Personal foul. 15 yards. For dead-ball fouls, 15 yards from the succeeding spot. Also, automatic first down for Team B fouls if not in conflict with other rules.

#### Defenseless Player: Contact to Head or Neck Area ARTICLE 4.

No player shall target and initiate contact to the head or neck area of a defenseless opponent with the helmet, forearm, elbow or shoulder. When in question, it is a foul. (See Points of Emphasis for a description of "Defenseless Player.")

PENALTY—(Same as above)

## **Anchor Standard Discussion Questions**

Discuss the following questions with your peer group. Then record your answers in the space provided.

The author includes an excerpt from a 2010 NCAA report that documents new rules designed to protect players. If steps such as these are already being taken, what is the author's purpose in writing the article? Support your answer with details from the text.
Choose a paragraph from "Contact Sports and Concussions" that you think is argued well and a paragraph that you find unconvincing. Why does one paragraph work better than the other? Support your answer with details from the text.

#### **Share and Learn**

## **Comprehension Check**

ow did the author's use of the diagram in the article strengthen the author's argument?
ow did the author's use of the diagram in the article strengthen the author's argument?
hat audience or audiences might the author be addressing—lawmakers? doctors? arents? athletes? Explain your answer.

## Read On Your Own

Read another persuasive nonfiction text, "Changing the Laws for Teenage Driving," independently. Apply what you learned in this lesson and check your understanding.