

**FL ELFAS**  
**Passage Cover Sheet**

Title:	The Disadvantages of Manned Space Travel
Stimulus ID:	6899CN
Source:	Commissioned
Grade Band:	6-8
Genre:	Informational Text
Text Type:	Science/Opinion Piece
Word Count:	414
Lexile:	1330
Lexile Range:	925-1185
Flesch-Kincaid:	11.9
Qualitative Ranking:	Complex

## The Disadvantages of Manned Space Travel

Compared to unmanned space missions, manned launches accomplish less, cost more, and put human life at greater risk. Unfortunately, factors other than the pursuit of knowledge have played a greater role in the direction the space program has taken.

The first Moon landing in 1969 was a proud day for America. After falling behind in the “space race” with the Soviet Union’s launch of the *Sputnik* satellite in 1957, the United States was triumphant at last. Looking back, however, the space race was an exercise in childishness that contradicted the expressed knowledge-seeking aims of the space program. In fact, the motives for recent manned space flights should be regarded with equal suspicion. While they get much more media attention and hype than unmanned missions, they are much less productive.



As far back as 1990, most scientists considered the manned space shuttle missions as having limited usefulness for gathering knowledge about the workings of the universe. The International Space Station that created such high expectations for a public wanting more conquests has fallen far short of predictions. In contrast, the mechanical Mars rovers outperformed expectations and received numerous mission extensions to further investigate the Red Planet. This information may someday provide an answer as to whether life has ever existed on Mars.

Unlike rovers, which have no biological needs, humans require food and water, air with oxygen, and accommodations for the changes in gravity encountered beyond Earth. Special equipment and supplies are needed to sustain human life in space, and this means much larger cargoes and more fuel. Manned space flights such as the shuttle missions are outrageously expensive. Estimates are that two

unmanned missions could be completed for the price of one shuttle launch and with fewer risks.

Although mechanical failures can happen as easily to unmanned flights as manned ones, the consequences of losing human life are far greater than losing computers or rovers. The tragedies that met two space shuttles—the *Columbia* and the *Challenger*—resulted in a combined loss of fourteen lives.

The advantages to society that the space program brings are unquestionable, but launching costly and dangerous manned space flights that result in a fraction of the knowledge gained through unmanned missions is indefensible. The idea of exploring new worlds has long captivated humans, but more pressing concerns exist right here on Earth. National pride and the popular appeal of seeing humans land on the Moon or Mars are not enough.

## ELL CONSIDERATIONS:

- Provide some background information on the U.S. space program. Show pictures of some of the Apollo spaceships and recent space shuttles. Discuss the meanings of *manned* and *unmanned* space missions.
- List on the board various genres of writing, including narrative, fiction, and persuasive. Use comprehension checks to make sure students understand the different types. Tell ELLs that this passage is persuasive, so the author is trying to persuade the reader to accept his or her point of view.
- Before reading the passage, have the students look at the passage title. After making sure the ELLs understand the words, have them make predictions about what will be said. Elicit some of the disadvantages of manned space travel they can think of. Also, elicit a few advantages.
- The passage contains some sentences that are facts and some that are opinions. Write a couple sentences from the passage on the board (one that is a fact, one that is an opinion). Ask the students to tell which is a fact and which is an opinion. Discuss why this is so.
- Explain or discuss with ELLs the following vocabulary prior to introducing the passage. The following key words or phrases reflect important vocabulary or academic concepts appropriate to address at this level. The meaning of vocabulary can be taught to students using a variety of research-based strategies, including student-friendly explanations, synonyms or antonyms, demonstrations, gestures, or illustrations. Explaining the meaning of the word or phrase in the context of a sentence also provides students with an additional language model of how the word or phrase is used in a sentence different from the context in the passage. Demonstrations or examples and non-examples can also be used to explain meaning or check for understanding, including the use of Spanish cognates.

### Tier two words/Spanish cognates:

- factors/factores
- exercise
- suspicion
- limited/limitado
- investigate/investigar
- indefensible
- popular appeal
- triumphant
- captivated

### Tier three words/Spanish cognate:

- launches
- Moon landing
- space race
- gravity
- oxygen/oxígeno