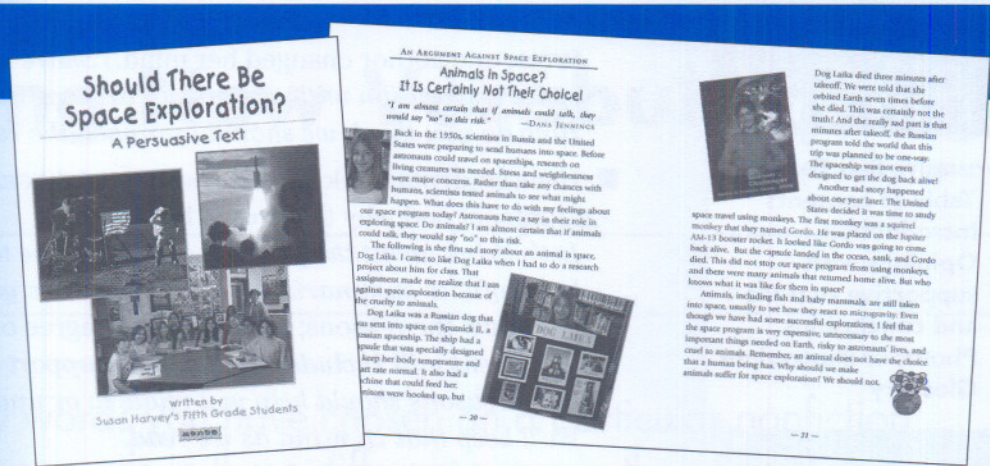


Should There Be Space Exploration?

Written by Susan Harvey's Fifth Grade Students



SUMMARY

This persuasive text presents pros and cons of space exploration. The authors are eleven fifth-grade students. Each in turn presents his or her argument for or against the United States space program. Readers are invited to form their own opinions after considering all the arguments.

FEATURES

- Titled arguments linked to table of contents
- Introduction
- A “pro” or “con” icon at the end of each argument
- How We Wrote Our Book
- Glossary
- Index

BOOKSHOP MATERIALS

- Multiple copies of *Should There Be Space Exploration?*
- *Bookshop Student Thesaurus*
- *Bookshop Writer's Style Guide*
- Sticky notes or notebook

Reproducible masters on pp. 7 and 8

Reading Indicator Tracking and Focus Sheets

Teacher's Guide and Assessment Manual

SESSION

1

INTRODUCING THE TEXT



Text Selection: Pages 4–14 (Note: Students may not read all of this selection during the session.)

- State the teaching focus, establishing the expectation for students' learning and their understandings of the text type.

In this persuasive text, each student author is trying to persuade us to agree with his or her point of view. As we read today, we'll be asking questions of the authors to help us understand their viewpoints. We'll practice summarizing each argument to decide whether we agree. Then we'll summarize our understandings of the issue of space exploration and form our own points of view.

- Direct student attention to the book cover, title page, and table of contents. Encourage them to make some predictions based on the format of the text. *Let's have a look at how this book is organized. What do you notice?* (possible responses: arguments alternate between for and against; more arguments are in

TEACHING FOCUSES

To help students:

- Summarize nonfiction by identifying and reorganizing important ideas and information into new understandings
- Ask questions of the author to understand author's bias, purpose, or point of view



TEACHER TIP

Persuasive Text Features

- Table of contents
- Introduction
- Opinions with supportive reasons and conclusions
- Photos or illustrations
- Glossary

WORD WORK

The technical terms in this text provide opportunities for students to understand word meanings by knowing the Greek roots. The words *astronaut* and *astronomer* both come from the Greek *astron*, meaning “star.” Locate these words in the glossary and discuss them. Then challenge students to predict what an astro-photographer and an astrophysicist might do for a living.

favor; one author changed her mind.) *Share some of your feelings about space exploration with a partner. Partners, be ready to share your thoughts. How do you think we should approach the reading of this book?*

- Have students think about how they might summarize each author’s argument and why this would be helpful.

Let’s think about the purpose of persuasive text. Why do you think it will be helpful to summarize each argument as you read? (possible responses: to review the reasons; to decide if we agree or disagree.) Yes, a good argument will include reasons that support the point of view. Combined, these reasons should help you relate to or understand the author’s feelings. We’ll keep that in mind as we read.

- Direct student attention to vocabulary that may present a challenge, along with some topic-specific vocabulary they may not have encountered. If possible, embed these words into your dialogue as you introduce the text and refer students to the glossary for specific content vocabulary.

*This text includes a number of space-related words that are defined in the glossary—for example, the word *satellite*. What are your understandings of this word? (possible responses: something floating around in space; something put in space by man to collect information.) Let’s check the glossary and see how close we are to a correct definition.*

VOCABULARY

Vocabulary that may present a challenge for students in this text selection includes *satellites, absurd, polluted, mission, unleashed, microbes, maritime, immense, stabilizing, and debris*. Additional content-related vocabulary is supported by the glossary.

READING THE TEXT



- Set a focus for reading pages 5–9 and then guide students through a reading of this text, reminding them to consider the student’s point of view and mentally summarize his or her reasons. Ensure the text is an appropriate match for everyone in the group.

As you read the introduction and first argument, note any interesting points you may not have considered or known about. Consider the students’ presentation of their topic in the Introduction and the validity of the first argument. Let’s hear some of your thoughts. (possible responses: I like the way they broke the topic into categories; I never thought about moving Earth’s population to Mars in order to survive.) Interesting thought! How well do you feel that supports the author’s argument? Why do you feel that way?

- ✓ Explain that students will read through page 14 independently. Monitor students by moving around the group and listening to each one read individually. Note their reading fluency, observe and listen for assessment evidence on individual students, and record observations on your focus sheet. Provide support to individual readers as necessary.

As you read silently for five minutes, note each author’s opinion as stated in the title and question his or her choice of supporting reasons. Evaluate how well they support their arguments by summarizing their reasons. Jot down questions you might have for the authors. I will come around and hear each of you read—please raise your voice so I can hear you.



COMPREHENSION TIP

As they read persuasive text, students need to think about and evaluate the author’s point of view or bias, their prior knowledge of the topic and similar text types, along with their own beliefs and opinions. Discussion with other readers then helps them refine their ideas.

DISCUSSING THE TEXT



- Guide a discussion about any questions students noted in order to understand an author's point of view. Ask them to consider how well the student authors backed up their points of view.

Share with a partner a question you had for one of the authors. Now let's discuss one of them. You wanted to ask Courtney why she thought that exploring the ocean was more important than exploring space, since we're not sure there's anything of value down there. Good question! Who else had one? How well did you think these authors supported their arguments? (possible response: I felt John's argument was really well supported because it presents a solution to living on a polluted Earth; I disagree because I think we should fix Earth and stop polluting, so that doesn't seem like a good reason to me.)

VOCABULARY

Provide opportunities for students to bring up any words or phrases that presented a challenge as they read the book.

Invite them to articulate successful problem-solving techniques or to receive corrective feedback for unresolved concerns.

Let's share how you worked out the meaning of a challenging word you found. (possible response: maritime, p. 10: used the context clues "underwater world" and the author's argument in favor of Earth exploration.) Well done! Who else used context clues to help them figure out the meaning of a word?



Providing a graphic organizer is one way to support students in summarizing and evaluating a persuasive argument. The reproducible organizer on page 8 enables students to practice this skill.

FOLLOW UP



- Link your discussion to the teaching focuses, and remind students to apply these strategies as they read independently. Students may need time to complete the selection in preparation for your next session.

As we read this persuasive text, we practiced summarizing and evaluating each author's argument. At the same time, we questioned the authors to better understand their points of view. How did these strategies help us decide whether or not we were in agreement with these authors? (possible responses: if I had too many questions, I decided the argument was weak; if all the points made sense when I summarized them, then I had to seriously consider if I agreed with the author, even if I didn't think I did at first.) Remember to continue using these strategies as you read the rest of the book.

Provide students with opportunities to practice responding to the types of questions frequently found on standardized tests.

Some test questions ask you to identify main ideas or important information in a passage. For example, what is the most important information in the first paragraph on page 7? a) President Bush feels that Earth is too polluted and populated; b) other countries have explored Mars; c) one day Earth may be uninhabitable and people will have to live on Mars. (answer: c)

- If assessment evidence gathered from this session indicates a sound understanding of the text, proceed to Session 2. If understanding is only at the literal level of comprehension, use the reciprocal reading strategy for future sessions.



COMPREHENSION SHARE

When reading persuasive text, good readers stop to summarize and consider all of the arguments that have been presented. Taken together, they should form a cohesive argument either in favor or against. Readers should also consider their own points of view and be willing to change their minds if presented with compelling evidence.

ELL SUPPORT

Provide ELL students with a range of resources on space exploration to increase their exposure to content-specific vocabulary and to help build their knowledge of the topic. The NASA website is a rich and student-friendly source of information and photographs.

TEST
PREP

SESSION

2

TEACHING FOCUS

To help students:

- Ask questions of the author to understand author's bias, purpose, or point of view



INTRODUCING THE TEXT

Text Selection: Pages 15–34 (Note: Text for this session is sequential to the text for Session 1.)

- Begin by discussing the prior session, restate the teaching focus, and link students' prior experience to your expectations for today's session.
When we first met, we practiced questioning these authors about their opinions as we read, and we summarized their points to help us consider the strength of their arguments. Today we'll continue to question some other authors as we read. Ultimately we will summarize all of these arguments as we make decisions about our own points of view.
- Guide students to link their understanding of the topic (gained from the previous session and prior knowledge) to the remaining text.
With your partner, review some of the arguments for and against space exploration that you've read. Discuss which ones you felt were most convincing or well presented. What are your thoughts? (possible responses: I really related to Courtney's argument because I am worried about global warming and I know it takes money to find a solution; I liked John's argument because he had a lot of interesting facts and they were easy to understand.) Good thinking! Remember to keep questioning and evaluating these authors' work as we read today.
- Continue introducing the text, providing opportunities for students to both hear and use any vocabulary that may be unfamiliar or challenging.
I see we will be reading about robots, the International Space Station, and the Hubble telescope. You may encounter more challenging terminology . . . nebula is one, and preprogramming is another. One of these is in the glossary. How might we figure out the meaning of preprogramming?

VOCABULARY

Preview the text to check for any vocabulary students may need support with. Target vocabulary in this section may include *nebula, Columbia spacecraft, catastrophe, microgravity, simulation, booster rocket, and preprogramming.*



READING THE TEXT

- Once you are sure that students are appropriately matched to the text and possess the strategies necessary to address the challenges, send students off to read independently for 20 minutes.
Please find a quiet spot where you can read for about 20 minutes, until I ask you to return. As you read, remember to question the author's arguments and reasons. This will help you decide how convincing each argument is so that ultimately you can evaluate them and make your own decisions about this issue.

VOCABULARY TIP

Students need to work with new words and concepts on multiple occasions in order to fully master them. However, while students are in the process of reading a text, focus on the meaning of new words in the context in which students find them, not in new and potentially confusing contexts.

COMPREHENSION SHARE

When you read, the text should make sense. If suddenly what you are reading does not make sense, you need to stop and figure out where you lost the meaning, go back, and try to regain your understanding. Sometimes simply rereading, or reading more slowly, is all you need to do.

DISCUSSING THE TEXT



- Bring students back and facilitate a conversation designed to deepen their understanding of the authors' points of view and biases, as well as students' own.

I see that some of you flagged questions you had for the authors. Let's hear some of your questions. (possible responses: I wondered whether Alice was in favor of the Hubble or against it, because she talks about all the cool photographs it sends back but thinks it's too expensive. So I'm not sure how well she's supported her argument. I'd ask her how she would answer her own question [in the title].) Good thinking! Who else wants to share? (possible response: I wanted to ask Harrison and Cara more about what robots can really do because I'm not sure they can totally substitute for humans. But maybe we don't know the answer to that yet!)

WORD STUDY

Continue the discussion, inviting students to evaluate each argument and providing opportunities for them to share either how they successfully problem-solved challenging words or phrases, or what they attempted but were unable to resolve.

Who encountered a challenging word that they still find puzzling? (possible response: On page 19, I can't figure out how to say c-a-t-a-s-t-r-o-p-h-e. From the context, I think it means a horrible event.) You are right about the meaning. Let's try syllabication to help us pronounce this word, which has a Latin root. There are four syllables: ca/tas/tro/phe. Does that help? Who else had a pronunciation challenge that syllabication might solve?

FOLLOW UP



- Have students share how questioning the authors to clarify their points of view or to focus their own reading was a helpful strategy. Remind students to use this strategy when reading other persuasive texts. Provide the reproducible organizer on page 7 to support their efforts.

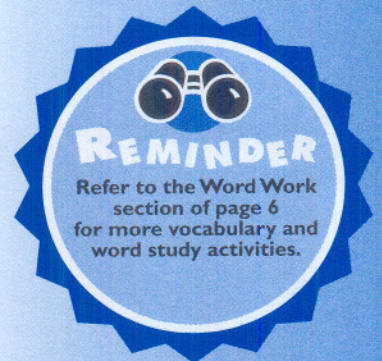
As we read this text, we continued to ask each author questions in our minds in order to clarify what they meant and how they felt. This helped us evaluate their arguments and make some decisions about our own points of view. Share with a partner which argument you found most compelling and why. Use these observations when you read and write other persuasive texts.

Following their reading of this text selection, provide students with opportunities to practice responding to the types of questions frequently found on standardized tests.

*Some test questions ask you to make inferences. For example, after reading the second to last paragraph on page 11, which is a correct inference?
a) the author thinks that both Earth and space are too polluted; b) the author thinks that space exploration is polluting Earth; c) the author feels that the money spent on space exploration should be spent to clean up Earth. (answer: c)*

COMPREHENSION TIP

Asking questions of an author and then focusing on finding answers in text is a good way for students to monitor their own comprehension. In persuasive text, asking questions of authors is also a valid tool for evaluating the strength of the persuasive argument.



TEST PREP

WORD WORK

VOCABULARY

Begin this activity with words from the text that students isolated. Then invite them to add words they find online and in various articles they read about space exploration.

VOCABULARY

Help students develop their space exploration vocabularies by placing pads of sticky notes beside the computer and dictionaries. As students research space exploration, have them write new words and their definitions, and stick the notes on a nearby wall. They can organize and reorganize the sticky notes into various categories.

I see you have placed all the space station-related vocabulary together. Good topical organization! How about making a category for robot-related words? What can you do when a word belongs in more than one category? Who will volunteer to help create an illustrated dictionary of space terminology?



Sorting and categorizing topic-specific vocabulary is a good way students to create and manipulate relationships between new vocabulary. The reproducible master on page 7 provides guidelines for vocabulary organization.

WORD STUDY

Base Words: Looking at base words and how they combine with prefixes and suffixes to build new

words is an important aspect of word study. Have students locate examples of base words that have had both a prefix and a suffix added, and have them isolate the components.

A base word can be combined with a prefix, suffix, or both to create a new word. An example from this text is the word unnecessarily. It includes the base word necessary, the prefix un-, and the suffix -ly. Look through the text to find some other words built from base words, prefixes, and suffixes, and divide the words into these parts. Then analyze the definitions based on what you know about the parts.

WORD STUDY

Possible words to use may include *unleashed*, p. 8; *unacceptable*, p. 10; *preprogramming*, p. 23; and *unmanned*, p. 25.

PRACTICE & EXTENSION

WRITING

- Invite students to write their own arguments against or in favor of further space exploration.
- Have students write letters to the authors of this text whose arguments seem particularly compelling or interesting. Encourage them to question the authors.
- Consider having students follow the procedure described in “How We Wrote Our Book” to create their own persuasive text on a topic of their choice.

OTHER CURRICULUM AREAS

- Encourage students to create editorial cartoons that reflect their opinions of space exploration or the space program. Have on hand a selection of such cartoons for them to examine and analyze.
- Have students interview parents, grandparents, or other older adults about their first memories of or their opinions of space exploration. Record or videotape the interviews and share them with classmates. Students can use the questionnaire in this text as a guide.
- Invite interested students to create labeled diagrams of the International Space Station or the Hubble Telescope.



Evaluating a Persuasive Text

Name: _____ Date: _____

Title: _____ Pages: _____

Choose one argument from a persuasive text to evaluate. Summarize the argument, note and evaluate the supporting reasons, and then tell why you either agree or disagree.

Argument: _____ _____ _____ _____	
Supporting Reasons	Evaluation of Reasons
I agree/disagree with this argument because _____ _____ _____ _____ _____	