SCHOLASTIC Moving Up with Literacy Place 4–6


# SPACE DIVING

*Written by Jeanna Bryner*

**TEXT TYPE:** Non-fiction: Description—Magazine Article
**GUIDED READING LEVEL: T**

**SUMMARY:** This magazine article explores a new ultra-extreme sport—space diving! Orbital Outfitters is creating a new spacesuit that would allow thrill-seekers to experience the ultimate thrill ride. In the article, the author presents some of the technologies and obstacles involved in the development of the spacesuit. It has numerous 'hi-tech' features that allow a person to travel through all four layers of our planet's atmosphere and land safely on Earth.

## TEXT FEATURES

- magazine-style layout with columns
- headings/subheadings
- bolded words/mini-glossary
- titled sidebars
- author's name credited at end of article

### VISUAL LITERACY

- photographs
- illustrated diagrams
- diagram key
- captions/labels
- dynamic spacesuit image

## TEXT SUPPORTS

- diagrams
- mini-glossary
- spacesuit image
- topic of interest to students

## POSSIBLE TEXT CHALLENGES

- measurements and units; distance, speed, temperature
- scientific vocabulary and descriptions

## FOCUS COMPREHENSION STRATEGY

- analyzing

## FURTHER COMPREHENSION STRATEGIES

- making connections: text to world
- inferring

## ORAL LANGUAGE OPPORTUNITIES

- Place Mat strategy
- Say and Switch strategy
- discussing as a group
- presenting a television commercial (option 3 in Focused Rereading)

## WORKING WITH WORDS

- language predictability: using context to work out word meanings
- word solving and building: noticing a familiar word embedded within a larger word
- high-frequency words: recognizes words linked to science, math

## ASSESSMENT OPPORTUNITIES

Observe each student's ability to:

- identify and cite central and supporting ideas
- discuss some of the features of a magazine article
- connect ideas in the text to what they know about the world
- use information in diagrams and other features to bolster understanding
- use information from the text to provide evidence for ideas and opinions

## ASSESSMENT TOOLS

Select from the following:

- Analyzing Strategy Checklist
- Comprehension Strategies Anecdotal Record

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## BEFORE READING

### *Activate and build prior knowledge*

**Making Connections: Text to World and Inferring**

- Before displaying the text, ask students, *What do you know about extreme sports?* Have students work as a group using the Place Mat strategy (see Oral Language Strategies in the *Grade 6 Literacy Support Guide*). As a group, discuss the ideas recorded on the place mat and look for common elements. Write these common elements in the centre of the place mat, and share with other groups if time allows. Say, *Now that we have a common understanding of extreme sports, what do you think an ultra-extreme sport would be?* Discuss ideas as a group.

### *Introduce supports and challenges*

**Text Features and Evaluating**

- Display the front cover and ask students: *Do you think this text is fiction or non-fiction?* Share possible reasons for both responses. Have students scan the entire text and ask again whether they think the text is fiction or non-fiction. Encourage students to cite features of the text and their own background experiences with magazine articles. Explain that this text is a magazine article and, indeed, is non-fiction.

**Language Predictability and Word Solving and Building**

- Point out the word 'weightlessness' near the bottom of page 3. Ask, *How would you go about reading this word? What strategies would you use?* Ask students if they can figure out the word's meaning by considering its context; how it 'fits' in the sentence. Perhaps students recognize a familiar word (or words) within the larger word. Students can also use this method of word solving for other challenging words, such as 'parachutist' and 'survivability,' near the bottom of page 2.

**High-Frequency Words and Text and Visual Literacy Features**

- Direct students' attention to the units of measurement used throughout the article. Let students know that measurements are provided in different units, some of which have abbreviations, e.g., 'km'/'mi' (kilometres/miles), 'ºC' (degrees Celsius), and so on. Ask students why the author might have chosen to provide the measurements in both metric and imperial units (kilometres and miles). Encourage students to think about what strategies work best for helping them to read (for pronunciation and meaning) words that are related to science or math. The illustrated diagram of the atmosphere is a useful tool for assisting students in visualizing scientific terms. The mini-glossary is useful for defining some technical words.

### *Set a purpose for reading*

**Analyzing**

- Say to students, *Jumping from space is a lot different than skydiving. When making the protective space diving suit, the designers had to take into account three important details when diving from such a great height. Read to find out about the various obstacles they had to consider.*

### *Provide for early finishers*

- If students finish early, have them begin a two-column chart. In the left column they can record the three main details that the spacesuit's designers considered when developing it, and jot a few points about each detail in the right column.

## DURING READING

### *Monitor reading*

- While reading the text independently, listen to individual students read aloud to you. Assist them with word solving, vocabulary, and comprehension. Always provide a comprehension prompt that highlights the focus strategy (analyzing), e.g., *What do you notice about the features of the spacesuit? Who are these men in the photos? What details is the author giving you here? What is the article explaining in this diagram?*

### *Observe*

- Make observations on your assessment tools. (See the Analyzing Strategy Checklist and the Comprehension Strategies Anecdotal Record in the *Grade 6 Literacy Support Guide*.) Note any successful reading strategies you observe, e.g., students looking at the illustration, referring to the mini-glossary, considering context, and so on.

## AFTER READING

### *Revisit the purpose for reading*

**Analyzing**

- Ask students to identify the three main factors considered when designing the space diving suit (air pressure, temperature, and braking). Create a two-column chart on a class board and write these three factors in the left column. Ask students to provide specific details about each factor in the right column. Draw their attention to the fact that the author uses headings to organize the article according to these three important design considerations.

### *Check on outstanding challenges*

- Discuss the value of including the diagram of Earth's atmosphere in the article. Ask, *What value, or assistance, did the diagram add?* Ask students to discuss this question with a partner using the Say and Switch strategy (see Oral Language Strategies in the *Grade 6 Literacy Support Guide*).

**ESL NOTE:** Be sure to pair your ESL students with a partner more proficient in reading comprehension and oral communication.

- Discuss and clarify any other outstanding challenges students experienced that you noted in your observations, e.g., science or math-related terms.

### *Note successful strategy use*

- Point out reading strategies you noticed students using, e.g., *I noticed how Luka referred to the mini-glossary when he came across a word in bold font. He took the time to use this feature of the article and it really made a difference in his understanding of some new words, like* '**friction**.'

## FOCUSED REREADING

Three options are provided for focused rereading in the next Guided Reading lesson. Choose an activity that meets the needs of your students, or you might select a Reader Response activity from the *Grade 6 Literacy Support Guide*.

### *Written*

**Evaluating and Self-monitoring**

- Have students write a letter to the editor of the magazine in which this article appears. Generally, letters to the editor offer support for a particular article or critical feedback. In their letter, have students take a stance on the issue of space diving as an ultra-extreme sport. When explaining their opinion on space diving—either for or against—have students reference specific information in the article. With feedback from peers and the teacher, students should think of elements in their letter that can be improved and revised. Encourage students to make necessary revisions to strengthen their letter.

### *Artistic*

**Analyzing and Inferring**

- Have students design the homepage of a space diving Website. The goal of the site is to promote space diving and provide important information to prospective clients. Suggest that students create links on their homepage to specific details from the magazine article. Before starting, ask students, *Why is a Website a good way of reaching an audience that might be interested in space diving? What other forms of media might be suited to reaching those who might be interested?*

### *Oral/dramatic*

**Making Connections: Text to World**

- In pairs, have students create a commercial for Orbital Outfitters. They can perform their commercial for students who have not read the article.