



Lesson Plan

Our Solar System



About the Book

Text Type: Nonfiction/Informational Page Count: 26 Word Count: 1,766

Book Summary

Our Solar System is an informational book that compares and contrasts the planets and describes comets, asteroids, and other space features. Space-related terminology and concepts in the book are supported by interesting photographs and fact boxes.

About the Lesson

Targeted Reading Strategy

• Ask and answer questions

Objectives

- Use the strategy of asking and answering questions
- · Identify main ideas and details in text
- Capitalize and punctuate sentences; capitalize place names
- Recognize and use content vocabulary

Materials

Green text indicates resources available on the website

- Book—*Our Solar System* (copy for each student)
- Chalkboard or dry erase board
- Main idea and details, capitalization and punctuation, content vocabulary worksheets
- Discussion cards

Indicates an opportunity for students to mark in the book. (All activities may be demonstrated by projecting book on interactive whiteboard or completed with paper and pencil if books are reused.)

Vocabulary

Content words:

Story critical: atmosphere (n.), diameter (n.), meteor (n.), meteorite (n.), orbit (n.), orbits (v.) **Enrichment**: fossil fuel (n.), gravitational pull (n.), meteoroid (n.)

Before Reading

Build Background

Have students tell what they see in the night sky besides stars (moon, other planets) and what
they see in the sky during the day (sun, clouds, rainbows, and so on). Have students name as
many of the planets as possible. Explain that all of these together make up what is known as our
solar system. Create a KWL chart on the board. Review or explain what each letter on the KWL
chart stands for. Fill in the first column with what students know about the planets, the Sun, the
Moon, or any other celestial object.



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Preview the Book Introduce the Book

- Give students a copy of the book and have them preview the front and back covers of the book and read the title. Have students discuss what they see on the covers and offer ideas as to what kind of book this is and what it might be about.
- Direct students to the table of contents. Remind students that the table of contents provides an overview of what the book is about. Each section title provides an idea of what they will read in the book. After reviewing the table of contents, model using it as a way to think of questions.

Introduce the Reading Strategy: Ask and answer questions

- Think-aloud: The first section in the book is titled "The Sun." I wonder if the Sun is a star or a planet. I'll write that question on my KWL chart.
- Have students look at the other section titles. Write any questions they have about the planets or the solar system based on the covers and table of contents in the middle column of the KWL chart. Remind students that no question is ever inappropriate if they truly do not know the answer.
- Show students the title page. Talk about the information that is on that page (title of book, author's name).
- Have students preview the rest of the book, looking at photos and sidebar text.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

Introduce the Vocabulary

- Remind students of the strategies they can use to work out words they don't know. For example, they can use what they know about letter and sound correspondence to figure out the word. They can look for base words and prefixes and suffixes, or other word endings. They can use the context to work out meanings of unfamiliar words.
- Model how to apply word-attack strategies. Have students find the bold word atmosphere on page 12. Tell students that they can look at the letters the word begins with to sound out the first part of the word. Tell students to use what they know about syllables and vowels (one vowel sound per syllable) to sound out the rest of the word. Model how they can use context clues to figure out the word's meaning. Show students that by reading past the word they are unfamiliar with, they will find a phrase that provides a clue. In this sentence, they learn that whatever it is, it is made up of gases. This tells them that the word probably has something to do with air. Direct students' attention to the "Do You Know?" box to read the information. Tell them this provides another context clue because now they know it is a thin layer. Tell students that in order to confirm that the atmosphere is a thin layer of gases, they can look in the glossary or use a dictionary. Have students follow along as you read the sentence in which the word is found to confirm the meaning of the word.
- Remind students that they should check whether words make sense by rereading the sentence.
- Preview other vocabulary words, such as *diameter, meteor,* and *orbit* before students begin reading.

Set the Purpose

• Have students read the book to find answers to their questions about the solar system.

During Reading

Student Reading

Guide the reading: Have students read to the end of page 13. Tell them to underline any important information about the planets or solar system. Tell them to go back and reread the pages if they finish before everyone else.



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• When they have finished reading, ask students to tell what they underlined. Reinforce unfamiliar vocabulary by using words such as *atmosphere* and *gravitational pull* in the discussion. Circle any questions on the KWL chart that were answered by reading the section, and add any new questions you or students have. Model using the information to answer a question written on the KWL chart.

Think-aloud: I wanted to know if the Sun is a planet or a star. I read that it is one of billions of stars in the sky. I can remember that because the words Sun and star begin with the letter s. Have students read the remainder of the book. Remind them to look for answers to the questions on the KWL chart, or to think of other questions to add to it. Tell students to write additional questions in the page margins of their book.

Have students make a question mark in their book beside any word they do not understand or cannot pronounce. Encourage them to use the strategies they have learned to read each word and figure out its meaning.

After Reading

• Ask students what words, if any, they marked in their book. Use this opportunity to model how they can read these words using decoding strategies and context clues.

Reflect on the Reading Strategy

• Have students share any other questions they thought of while reading. Reinforce how asking questions and looking for the answers as they read keeps them actively involved in the reading process and helps them understand and remember what they have read.

Teach the Comprehension Skill: Main idea and details

- **Discussion**: Have students review the KWL chart and circle any other questions that were answered by reading the book. Tell students that if they have questions they did not find answers to, they can look in other resources, such as science books or on the Internet.
- Introduce and model: Review or explain that many books are about one thing. Show students the book, and ask them what the topic of the book is (solar system). Remind students that in books, such as this one, which has the topic as the title, it is easy to tell what it is about; in other books, knowing the topic may require looking at the table of contents or reading the book.
- Direct students to the table of contents. Explain that each section contains a main idea, which is usually found in the section title, and details, which are found in the body of the section. Have students turn to page 6. Explain that this section tells about the Sun, and that the content in the section provides supporting details about the Sun. Remind students that the main idea is what the section is about (the Sun) and that details provide additional information about the main idea. Explain that finding main ideas and details, and checking to see if they've been able to answer a question they've asked helps readers to understand and remember what a book is about.
- Check for understanding: Have students look at page 8. Ask them to tell what the main idea is in this section (Mercury). Have them name three details that tell more about Mercury (Mercury is the closest planet to the Sun, Mercury is the second smallest planet in our solar system, it takes eighty-eight Earth days for Mercury to make a complete orbit around the Sun).
- Independent practice: Tell students to complete the main-idea-and-details worksheet. Discuss their responses.

Instruct students to use the inside cover of their book to write three of the most interesting facts they read about our solar system.

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Build Skills

Grammar and Mechanics: Sentence punctuation

- Write the following sentence on the board without capitalization or punctuation: *mercury is the closest planet to the sun*. Ask students to look at the sentence and tell what is wrong with it. Review that all sentences begin with capital letters and, depending on the type of sentence, end with a period, exclamation mark, or question mark. Make the needed corrections. Circle the word *Mercury* and tell students that in addition to being the first word in the sentence, it is also a proper noun. Review that proper nouns are always capitalized. Have students look at the sentence again for other corrections. Explain that the word *sun* in this sentence is a proper noun and needs to be capitalized. Write the word correctly.
- Explain to students that the words *sun*, *moon*, and *earth* are usually capitalized when used in a sentence or paragraph that refers to other specific bodies in our solar system. Tell them that the words are usually not capitalized when used alone. For example, *The shuttle flew from Earth*, *far from the Sun and the Moon. The man in the moon is winking at me*.
- Have students turn to page 4. Have them skim the page to find sentences in which *sun* and *earth* are capitalized and moon is not.
- Independent practice: Give students the capitalization-and-punctuation worksheet to complete. Discuss their responses.
 - Check for understanding: Have students use the inside back cover of the book to write two sentences: one in which sun, moon, and earth are capitalized, and one in which they are not.

Word Work: Content vocabulary

- Tell students that the words in the book are used to tell about our solar system. Provide opportunities for students to talk about difficult words, such as *Uranus* and *Neptune*. Provide opportunities for students to say the new vocabulary words, talk about where they are located in our solar system, and use the words in sentences.
- Check for understanding: Have students complete the content vocabulary worksheet.

Build Fluency

Independent Reading

• Allow students to read their book independently. Additionally, allow partners to take turns reading parts of the book to each other.

Home Connection

• Give students their book to take home to read with parents, caregivers, siblings, or friends.

Extend the Reading

Writing Connection

Have pairs of students work together to write a cinquain poem. Explain that a cinquain has five lines. The first and fifth lines each have one word. The second line has two words, the third line has three words, and the fourth line has four words. The first line is the title of the poem. The second line describes the title. The third line tells an action. The fourth line tells a feeling. The last line is a synonym of the title. For example:

Mercury Inner, little Spins very slowly Scary, weird, exhausting, freezing Planet.



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Science and Art Connection

Have students make hanging mobiles that show the order of the planets from the sun outward. Have students work in small groups to research a planet and present their information orally to the group.

Skill Review

Discussion cards covering comprehension skills and strategies not explicitly taught with the book are provided as an extension activity. The following is a list of some ways these cards can be used with students:

- Use as discussion starters for literature circles.
- Have students choose one or more cards and write a response, either as an essay or as a journal entry.
- Distribute before reading the book and have students use one of the questions as a purpose for reading.
- Cut apart and use the cards as game cards with a board game.
- Conduct a class discussion as a review before the book quiz.

Assessment

Monitor students to determine if they can:

- use the strategy of asking and answering questions to understand nonfiction text
- identify main ideas and details in nonfiction text
- Use correct capitalization and end marks to properly punctuate sentences
- determine when to capitalize the names of planets in text
- recognize and use content vocabulary

Comprehension Checks

- Book Quiz
- Retelling Rubric