

Teaching Fourth-Grade **Nonfiction Text Features**

Using *Discover Jupiter* from the **Searchlight Books™** — **Discover Planets Series**

Features that help students understand how an informational text is organized:

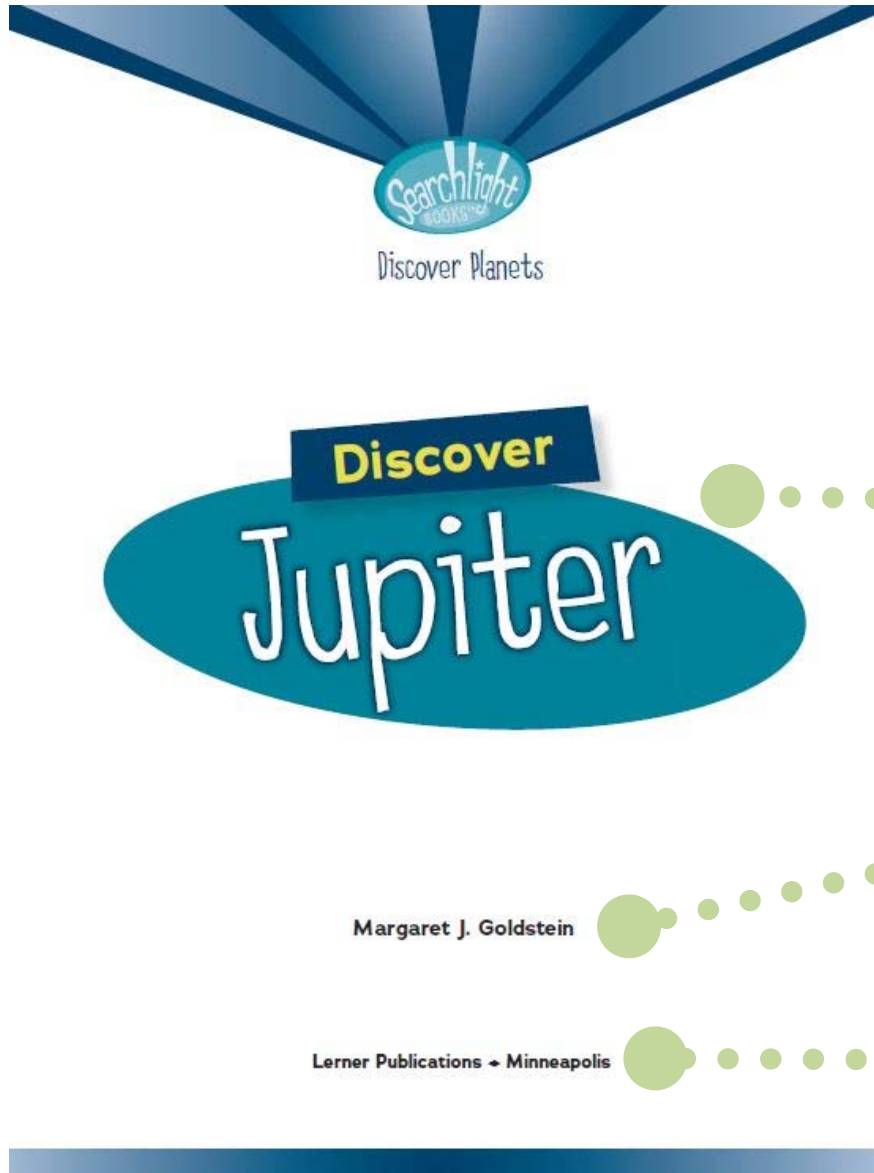
FEATURE	PURPOSE
Title page	Confirms title, author’s name, and publisher
Contents Page	Identifies the topics to be presented and their order
Chapter name, heading, or subheading	Helps students identify main topics on a quick pass through the text
Page number	Helps students with sequence of ideas and aids in using the index
Glossary	Defines new and important words
Further reading and websites	Helps students expand their knowledge of the topic by listing other informational texts in print or on the Internet
Index	Lists the main ideas in the text, with page numbers to help students find them

Visual aids that help students understand informational texts:

VISUAL AID	PURPOSE
Photo, drawing, or illustration	Shows how something in the text looked or might have looked
Diagram	Gives a more detailed view of a complex topic

Features that point out important or additional information:

FEATURE	PURPOSE
Bold print	Tells students a word is new and important; sometimes a glossary term
Colored print	Highlights a key topic or feature
Italic Print	Tells students the word is supposed to stand out. It may be for emphasis or because it is a book name, newspaper, movie title, foreign word, or the directional for a photo or illustration.
Caption	Points out what’s in a photo, a drawing, or an illustration and relates it to the informational text; often gives more information
Label	Identifies important points of interest in a diagram or photograph
Sidebar	Boxed or other highlighted bits of information that relate but are not the same as the main informational text; likely not a main idea



TITLE PAGE: This page tells you what the name, or the title, of the book is. It also tells you who wrote the book and who published it.

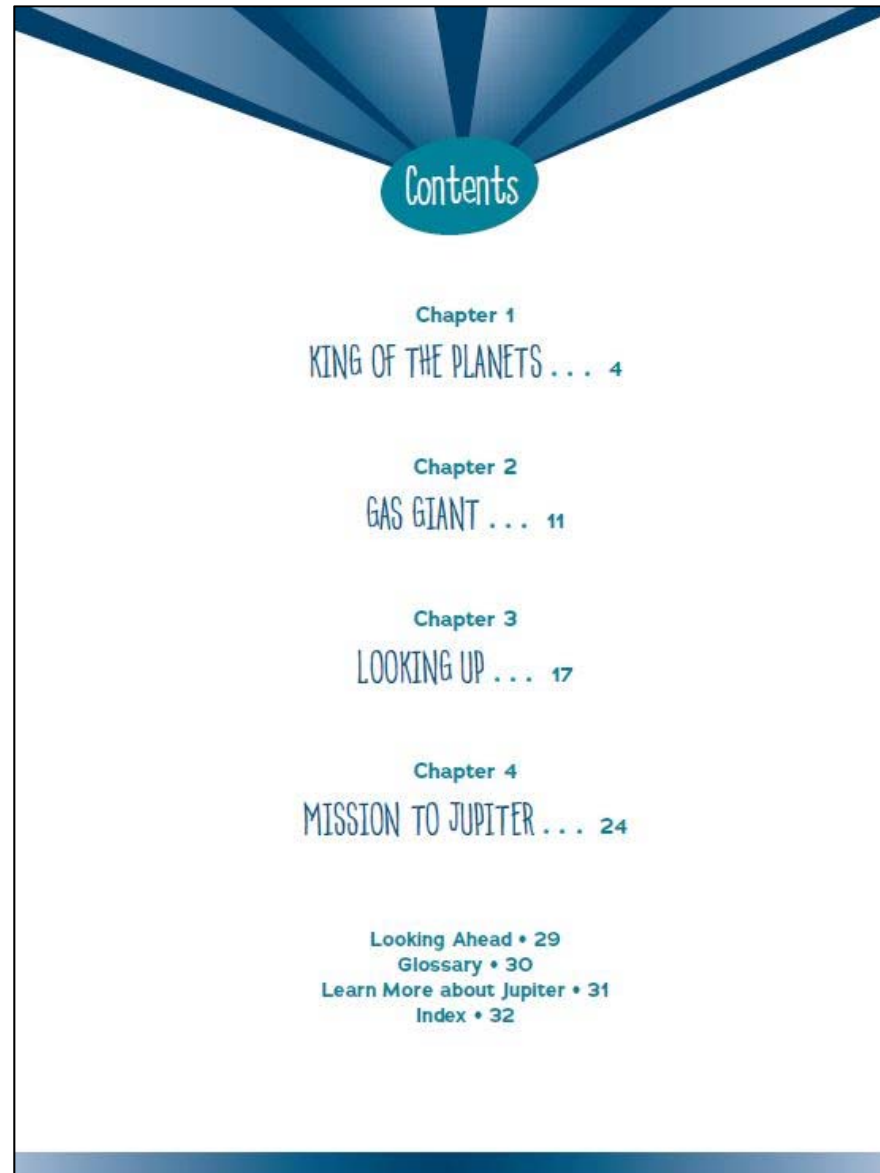
TITLE

AUTHOR

PUBLISHER

TABLE OF CONTENTS:

This lists the chapters in your book by chapter title and the pages on which they begin. The contents might also list features, such as the index, that are at the end of the book.



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CHAPTER TITLE: This tells you what topic will be discussed in the chapter. Chapter titles often give you the main ideas of the book.

CAPTION: These words tell you about the picture on the page. A caption is usually close to the picture it goes with. Sometimes a caption will tell you if the picture is a photo or a drawing. A caption may also give you additional information that is not in the main text.




SIDEBARS:

These are short bits of text with their own headers. They are usually boxed and separated from the main text. Sidebars give additional information.

PHOTOS:

The photos or pictures in a book show what the words, or text, describe. Looking at photos can help you understand the meaning of the text.



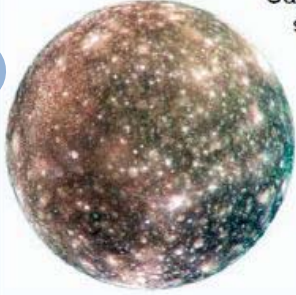
STEM Highlight

The spacecraft *Voyager 1* and *Voyager 2* studied Jupiter's largest moons in 1979. Scientists learned a lot about the moons from these spacecraft.

Io has many volcanoes. Callisto is pitted with craters. Europa is covered with a thick crust of ice. Scientists think a deep ocean lies beneath the ice.

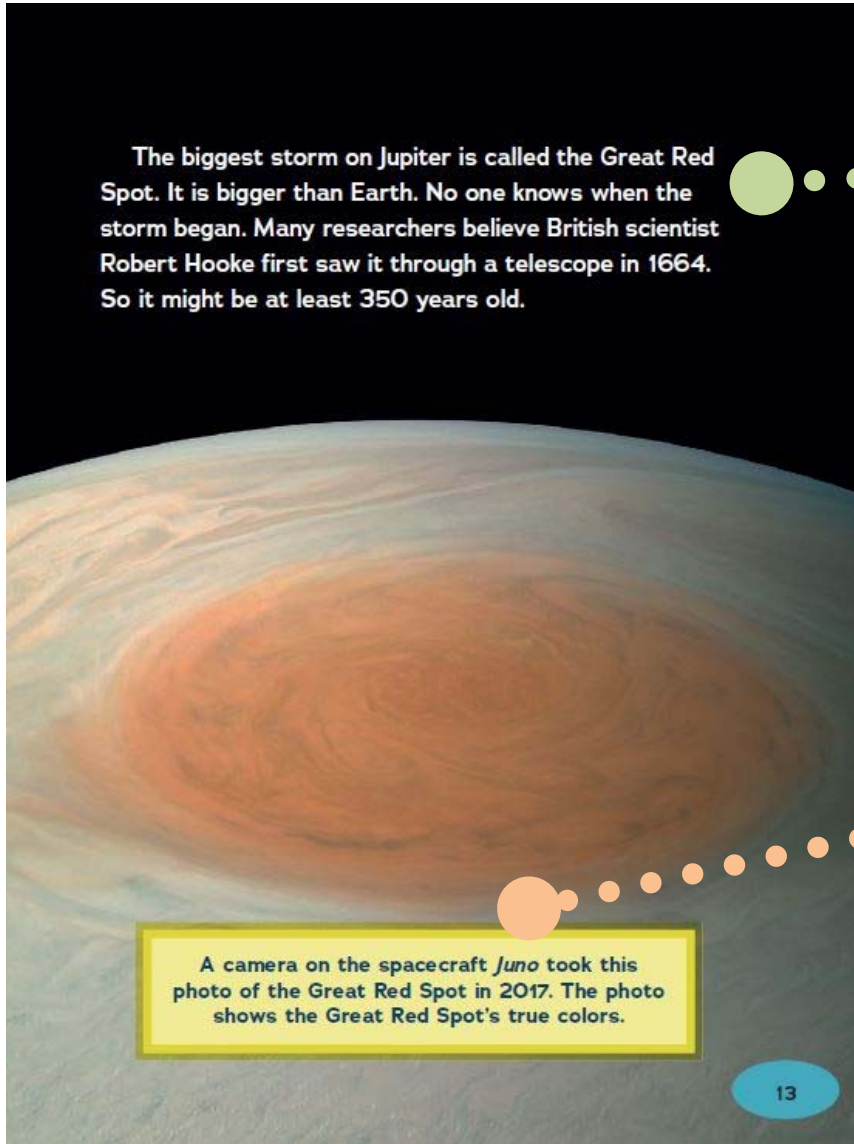
Ganymede is the largest moon in our solar system. It is bigger than Mercury, the smallest planet. In 1995 the spacecraft *Galileo* visited Ganymede and found a magnetic field around the moon.

Ganymede is the only moon scientist know of that has its own magnetic field.



In this image taken by *Galileo*, the bright spots on the surface of Callisto are craters.

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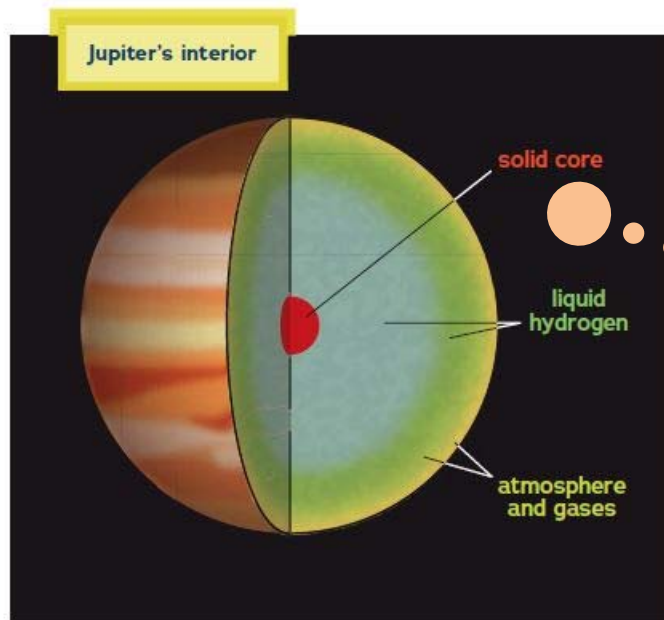
TEXT OR MAIN TEXT: These are the words on a page that describe the main ideas of the book. Main text is usually smaller than chapter titles or headings.

ITALIC PRINT:

This type is slanted to make a word or phrase stand out. Italicized words may be names of books, newspapers, movies, ships, or foreign words. They may also tell you which caption goes with which photo.

Interior Department

Underneath Jupiter's stormy atmosphere is a thick layer of liquid hydrogen and helium. Beneath that is an even thicker layer of liquid metallic hydrogen. This hot, soupy substance creates Jupiter's magnetic field and electricity. Scientists don't know what the very center of Jupiter is like. It might be a hot ball of rock and metal.



HEADINGS AND SUBHEADINGS:

These separate the main text into smaller chunks of information. A heading tells you what the section below is about.

LABELS: These are words in a diagram that point out the important parts of the photo. On a map, labels name important features, such as rivers and cities.

GLOSSARY:

This list calls out the important words in a book. The glossary proves the meaning, or definition, of the word. You can find the glossary near the end of the book.

DEFINITION

Glossary

astronomer: a person who studies objects and forces outside Earth's atmosphere, such as planets, stars, and energy traveling through space

atmosphere: a layer of gases surrounding a planet, a moon, or another object in space

aurora: a display of colored lights in the nighttime sky. Auroras appear when electrically charged particles hit a magnetic field.

estimate: to give or form a general idea about something

gravity: a force that pulls objects in space toward one another. Jupiter's gravity pulls objects toward the planet.

magnetic field: a region around a planet or another object that gives off a force called magnetism. Magnetism pulls on some kinds of metal.

orbit: to travel around another object in an oval or circular path

radiation: energy that takes the form of waves or particles

solar system: a group consisting of a star and the planets and other objects that orbit the star. In our solar system, the star is called the sun.

telescope: an instrument that makes distant objects look bigger

volcano: an opening in the surface of a planet or moon through which hot rock, metal, or gases sometimes gush out

Learn More about Jupiter

Books

Chiger, Arielle, and Matthew Elkin. *20 Fun Facts about Gas Giants*. New York: Gareth Stevens, 2015. Take a trip to the outer solar system to explore the gas giants: Jupiter, Saturn, Uranus, and Neptune. This book will be your guide.

Squire, Ann O. *Planet Jupiter*. New York: Children's Press, 2014. Find out more about how Jupiter was discovered and what scientists know about the planet.

Zuchora-Walske, Christine. *We're the Center of the Universe! Science's Biggest Mistakes about Astronomy and Physics*. Minneapolis: Lerner Publications, 2015. In ancient times, astronomers thought everything in the universe circled around Earth. That turned out to be wrong. This book examines changing scientific beliefs.

Websites

Our Universe

<https://www.esa.int/esaKIDSen/OurUniverse.html>

The European Space Agency hosts this website, which includes sections on the sun, planets and moons, stars and galaxies, comets and meteors, and the entire universe.

Solar System 101

<https://solarsystem.nasa.gov/kids/index.cfm>

This NASA website lets you explore the sun, planets, moons, and other objects in our solar system. The site also includes games, puzzles, and other activities.

What Is a Planet?

<http://kids.nationalgeographic.com/explore/space/what-is-a-planet/#planetary-lineup.jpg>

This site from *National Geographic Kids* includes fun facts and pictures, with information about each planet and much more.

FURTHER READING: This list offers suggestions of books and websites on the same subject as the book you just read. You can learn more by looking at books and websites from the list. The list is at the end of your book.

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Photo Acknowledgments

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INDEX: This list at the end of the book follows the order of the alphabet. The index helps you find main ideas. The words in the index are followed by page numbers. These numbers tell you where to go in a book to find the main ideas.