

*Apollo*, have students make a list of famous explorers and the places they discovered. Ask each student to then choose an explorer to write about, making sure to include information on the challenges they faced and the discoveries they made.

- Although the Moon and other planets have proved inhospitable to human life, many people, including astronauts like Buzz Aldrin, believe that humans will one day live on Mars. Ask your students to design a space-age city. Challenge them to think about government, transportation, housing, workplaces and food production. How would the new worlds be different from life on Earth?
- *Mission Control: This is Apollo* provides an excellent account of life aboard early spacecraft. Ask students to design a spaceship or a space station on paper or using a large cardboard box. How would their lives be different if they lived in space? Where would they sleep, eat, or shower? Show students photographs of actual station interiors and ask them to compare and contrast their drawings, descriptions, and models to astronauts' real-life accommodations

#### Mathematics:

- To relate the anniversary of the Moonwalk to mathematics, have your students calculate their weight on the Moon, the sun, and the planets. Discuss how lower gravity allowed Neil Armstrong and Buzz Aldrin to move easily on the Moon.
- For an additional activity, discuss the concepts of planetary revolution and rotation, and then ask students to figure out their age on other planets.

#### Science:

- In his book *Look to the Stars*, Buzz Aldrin credits Orville and Wilbur Wright as the first people in flight. Encourage your students to make different types of paper airplanes to learn about aerodynamics, or the movement of objects in the air. How do different shapes and folds affect the planes' flight?
- In *One Giant Leap*, Mike Wimmer paints the Earth like a marble, covered in blue oceans, dotted with green landmasses and swirling with white clouds. Have students draw and color all eight planets, and then show them current photographs and artistic depictions. Discuss why each planet looks the way it does, what makes Mars red and gives Saturn its rings.
- Talk with your students about the composition of the planets, and discuss why Earth is the only one that we know can support human life. Ask your students to design a planet. What elements would it need—soil, water, oxygen, carbon?
- *Apollo 11* was the first manned Moon landing, but not the last. Between 1969 and 1972, NASA sent several more missions to the Moon for scientific study, as chronicled in *Mission Control: This is Apollo*. Discuss the importance of multiple trials for scientific accuracy.

## More Stellar Space Books from Penguin Young Readers Group

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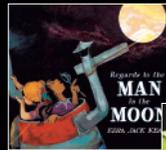


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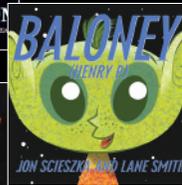
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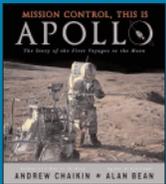
**Celebrate the 40<sup>th</sup> Anniversary  
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## A HISTORIC MOMENT . . .

On July 20<sup>th</sup>, 1969, two American astronauts walked on the Moon. Since then, we've sent satellites into space, machines to Mars, and probes past Jupiter. Scientists continually make new discoveries about the composition of planets and the contents of our solar system.

### Here are some great books to get students thinking about the world beyond our own:

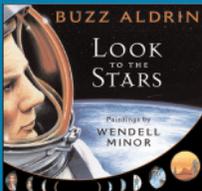


#### **Mission Control: This is Apollo**

Andrew Chaikin • Illustrated by Alan Bean  
978-0-670-01156-8 (HC) • \$23.99 • Ages 8-12

Viking Children's Books  
May 2009

*Mission Control: This is Apollo* is the definitive volume on the early American space exploration program for young readers. Chaikin offers a detailed description of the technological, political, and emotional aspects of the *Apollo*, *Gemini*, and *Mercury* missions. The illustrations of Alan Bean, an *Apollo 12* Moon-walker and professional artist, invite readers to see the richness of space as astronauts do. *Mission Control* masterfully narrates how many Americans made “countless tiny steps into *Apollo's* giant leap.”



#### **Look to the Stars**

Buzz Aldrin • Illustrated by Wendell Minor  
978-0-399-24721-7 (HC) • \$17.99 • Ages 6-8

G.P. Putnam's Sons  
May 2009

*Apollo 11* astronaut Buzz Aldrin takes readers through the history of American aeronautics in this informative picture book. Aldrin provides a detailed timeline of space travel, beginning with Copernicus' theory that the earth revolved around the sun, featuring the NASA missions of the 1960s and 70s, and predicting a future in which humans revisit the Moon and build on Mars. Filled with scientific facts and historical figures, *Look to the Stars* will satisfy budding astronauts and curious minds alike.



#### **One Giant Leap**

Robert Burleigh • Illustrated by Mike Wimmer  
978-0-399-23883-3 (HC) • \$16.99 • Ages 6-8

Philomel Books  
April 2009

Celebrating Armstrong and Aldrin's Moon Landing, Robert Burleigh provides an intimate, personal account of the historic 1969 event. Accompanied by Mike Wimmer's rich paintings, Burleigh imaginatively narrates the landing of the *Eagle*, the astronauts' Moon-walk, and their return to Earth. Readers will feel as if they have also flown on a space ship, leaped in low gravity and seen the Earth from outer space.



#### **The Moon Over Star**

By Dianna Hutts Aston • Illustrated by Jerry Pinkney  
978-0-803-73107-3 (HC) • \$17.99 • Ages 6-8

Dial Books for Young Readers  
Available Now

It is the summer of 1969 and a young girl dreams of going to the Moon. As Mae and her cousins hear the countdown for the launch and anticipate the televised showing of the Moon Landing, they imagine what life would be like if they were astronauts. Dianna Hutts Aston and Jerry Pinkney depict the impact of the *Apollo 11* mission on children's dreams and everyday life.



#### **Boy, Were We Wrong About the Solar System!**

By Kathleen V. Kudlinski • Illustrated by John Rocco  
978-0-525-46979-7 (HC) • \$15.99 • Ages 6-8

Dutton Children's Books  
Available Now

People first thought that the world was flat, then that our planet was protected by a giant glass sphere, and then that Earth was the center of the universe. A humorous and informative narration of the evolution of theories about space, *Boy, Were We Wrong About the Solar System* urges readers to challenge scientific hypotheses and continue exploring the universe.

## CLASSROOM ACTIVITIES & DISCUSSION ACROSS THE CURRICULUM

### Language Arts:

- One of the greatest attractions of outer space is the possibility of other life. Ask students to imagine what aliens might look like, how they might

communicate, and where they would live. Encourage them to write a story about what they would do if they ever met an alien.

- Children used to memorize the order of the planets with a mnemonic device like “My Very Educated Mother Just Sharpened Us Nine Pencils” or “My Very Earnest Mother Just Served Us Nine Pickles” but scientists recently demoted Pluto from a planet to a “plutoid,” or dwarf planet. Challenge your students to invent a new mnemonic device that will help them as they study the planets.
- On space flights and stations, astronauts record all of their activities and experiments. Towards the end of your unit on space, have students keep a journal for a week in which they imagine what life would be like in space. Each day, ask them to write an entry chronicling their lives aboard the ship. Entries should involve the five senses and incorporate information that the students have learned about outer space and extraterrestrial travel.
- Before they saw Armstrong and Aldrin on the Moon, people thought that rockets, Moon landings, and planetary travel were scientific fictions. Discuss the standard features of science fiction with your students. Have students pick a book from a small selection of juvenile science fiction. The short stories in Jonathan Strahan's anthology *The Starry Rift: Tales of New Tomorrows* offer a variety of approaches to science fiction while Susan Maupin Schmid's *Last Time* is a classic space adventure story. After they have read their books, break them into small groups and ask them to discuss how realistic or imaginative the stories were.

### Social Studies:

- In the second half of the twentieth century, the USSR and the USA competed to be the first—to launch a satellite, to send an animal into space, and to put a man on the Moon—earning this period the nickname “space race.” Science was intrinsically tied to politics: advances in aeronautics could not have been accomplished without the knowledge and equipment salvaged from World War II or the resulting tensions. Encourage students to think of other scientific discoveries or inventions that politics propelled. Ask them to also name inventions that helped a country during wartime, like penicillin or rubber.
- Although President Kennedy urged the USA to put the first men on the Moon, he also asked why the United States and the USSR could not work together to further scientific achievement. Discuss the Cold War with your students.
- Space is often called “the final frontier,” and like undiscovered territories before it, the exploration of the universe has required large amounts of money, technological advances, and personal sacrifices. While *Mission Control* celebrates NASA's achievements, it also chronicles the deaths and dangers facing early astronauts. After reading *Mission Control: This is*