

Space Exploration Resource List for Grades 5 through 8

The Resources in this document can be used with the Space Exploration Curriculum Packet for grades 5 through 8.

Books

Nonfiction and Biography

- Destined for Space: Our Story of Exploration (Smithsonian), 2012 by Don Nardo (Author).
From stargazing, to moon walking to, and someday intergalactic travel, the story of human space exploration is full of adventure, incredible machinery, and curiosity about our place in the universe.
- DK Eyewitness Books: Universe, 2015 by DK (Author).
Eyewitness books are excellent choices, and this one is an ideal choice for learning more about the universe and our exploration of it.
- Hubble Deep Field: How a Photo Revolutionized Our Understanding of the Universe (Captured Science History), 2017 by Don Nardo (Author).
A series of photos taken from space more than 20 years ago revealed thousands of unknown galaxies in a tiny patch of “empty” space. Called the Hubble Deep Field, the amazing image is made up of hundreds of photos combined into one. It has prompted astronomers and other scientists to speculate about universe’s size, shape, and age.
- Liftoff!: Space Exploration (Flash Points), 2017 by Eleanor Cardell (Author).
In 1957, the USSR sent its first man-made satellite into space. This began the Space Race between the USSR and the United States. The US quickly became the world leader in space exploration and rocket technology, and it holds that position to this day.
- Mars Rovers (Space Tech), 2017 by Allan Morey (Author).
Mars rovers collect rock and soil samples with their robotic arms. They also snap pictures of the Red Planet. Young readers can wander around with rovers in this book to look for signs of life on Mars.
- Neil Armstrong and Getting to the Moon (Infosearch: Adventures in Space), 2016 by Ben Hubbard (Author).
Join Neil Armstrong on his journey to the moon! This book examines the extraordinary life of the first astronaut to set foot on the moon, from his early life to his first trip aboard an American spacecraft.

- Our Moon: New Discoveries About Earth's Closest Companion, 2016 by Elaine Scott (Author).
This is a great title with a wealth of kid-friendly information, covering everything from the newest theories on how the moon formed, to the recent, startling discovery of water on its surface and the very real possibility of future moon colonies.
- The Planets, 2014 by Robert Dinwiddie (Author), Et al.
This book includes timelines that chronicle all major Space missions, right up to the latest Mars rovers, and infographics that present fascinating facts about all planets and the Solar System in a fresh new way.
- Sally Ride: America's First Woman in Space, 2015 by Lynn Sherr (Author).
The story Sally Ride, America's first woman in space, with exclusive insights from Ride's family and partner.
- Space! (Knowledge Encyclopedias), 2015 by DK (Author).
This title is encyclopedic in scope, covering the stars and planets, space exploration, and the night sky.
- Space Entrepreneurs (Science and Technology Start-Up Stars), 2018 by James Bow (Author).
Humans are pushing farther into space with the ingenious and ambitious innovations of space entrepreneurs. This engaging title describes the new ways entrepreneurs are using science and technology to take us beyond Earth.
- Space Race: An Interactive Space Exploration Adventure (You Choose: Space), 2016 by Rebecca Stefoff (Author).
A choose your own adventure based on real facts. Set in the era of the Cold War, you can choose how you want to help the country prevent the Soviet Union from developing weapons with its space technology.
- To Burp or Not to Burp: A Guide to Your Body in Space, 2016 by Dave Williams (Author), Loredana Cunti (Author), Theo Krynauw (Illustrator).
Of all the questions astronauts are asked by kids, the most frequent one is "How do you go to the toilet in space?" This book not only answers that question, but many others about the effect of zero gravity on the human body.
- Walking on the Moon: The Amazing Apollo 11 Mission (American Space Missions-Astronauts, Exploration, and Discovery), 2012 by Carl R. Green (Author).
On July 20, 1969, the world watched on televisions or listened on radios as Neil Armstrong and Buzz Aldrin took the first-ever steps on the Moon. Once considered an impossible dream, the United States created the APOLLO program with one goal in mind, landing on the Moon.
- Welcome to Mars: Making a Home on the Red Planet (Science & Nature), 2015 by Buzz Aldrin (Author), Marianne Dyson (Author).
Space is still the final frontier and Mars continues to make news and attract generations of young people. In this fascinating book, hero-astronaut Buzz Aldrin challenges curious kids to think about Mars as not just a faraway red planet but as a possible future home for Earthlings!

Fiction

- Astrotwins -- Project Blastoff, 2016 by Mark Kelly (Author), Martha Freeman (Contributor).
With the help of Jenny, nicknamed Egg, and a crew of can-do kids, the twins set out to build a real rocket that will blast off and orbit the Earth. The question soon becomes: which twin will get to be the astronaut? Written by a NASA astronaut with four space flights under his belt, this exciting story includes extensive back matter on the space program with fantastic facts and details.
- Horror in Space: Book 18 (Twisted Journeys), 2011 by Janine Young (Author), Courtney Huddleston (Illustrator).
Your ship is on a collision course with a black hole, and to make matters worse, alien monsters, mutants, and mutineers are stowed away on board! Every Twisted Journeys® graphic novel lets YOU control the action by choosing which path to follow. Which twists and turns will your journey take?
- Target Practice (Cleopatra in Space #1), 2014 by Mike Mauhack (Author) graphic novel series
When a young Cleopatra (yes, that Cleopatra) finds a mysterious tablet that zaps her to the far, far future, she learns of an ancient prophecy that says she is destined to save the galaxy from the tyrannical rule of the evil Xaius Octavian.
- Mars Evacuees, 2016 by Sophia McDougall (Author).
When Earth comes under attack by aliens, heroine Alice Dare and a select group of kids are sent to Mars. But things get very strange when the adults disappear into thin air, the kids face down an alien named Thsaaa, and Alice and her friends must save the galaxy!
- Patrick Griffin's Last Breakfast on Earth (Patrick Griffin and the Three Worlds), 2016 by Ned Rust (Author).
When Patrick Griffin passes out after a chemistry experiment gone bad, he wakes up in a strange parallel world, where everyone has huge eyes and tiny ears, and is addicted to smartphones called "binkies."
- Phoenix, 2015 by SF Said (Author), Dave McKean (Illustrator).
Lucky is just a normal kid living with his mom on Phoenix, a moon of the planet Aries One. Although humanity is currently at war with a terrifying race of cloven-hooved and horned aliens, the war has not reached Lucky's sleepy home-planet. However, Lucky is not quite as normal as he seems.
- The Space Mission Adventure (Clubhouse Mysteries), 2012 by Sharon M. Draper (Author), Jesse Joshua Watson (Illustrator).
Ziggy and his friends are excited to be going to Space Camp, where they'll get to learn about weightlessness and how astronauts eat, and use the bathroom, in space! But Ziggy has another goal: he wants to meet some aliens.

Magazines, Journals, Miscellaneous

- NASA App: Visually stunning NASA-backed treasure trove. (Download from App Store)
- Ready, Jet, Go Space Explorer: Swipe or move the device to scan through a generic sky, or turn on location services to have the app match the sky exactly as kids see it from where they are. Tap on constellations and planets to learn a few fun facts about them, (Download from App Store)
- Solar System Explorer: Visit and explore this beautiful, vast handheld planetarium. (Download from App Store)
- Space Science Investigations: Plant Growth : Developed by NASA, Plant Growth is a simulation game that takes kids on a virtual exploration of the International Space Station. (Download from App Store)

Online Links

- Kids Zone: Explore the International Space Station with this interactive website
<https://solc.gsfc.nasa.gov/modules/newkz3/index.html>
- Nasa's Space Place: NASA's Space Place is a site with interactive games, projects, and facts about space and Earth science.
<https://spaceplace.nasa.gov/>
- Space Station Explorers: Connect with the International Space Station
<https://www.spacestationexplorers.org/educational-programs/>
- Spot the International Space Station: website shows when the station will be flying overhead.
<https://spotthestation.nasa.gov/>

Background information for the Educator

- Discovery Education: Understanding Space Travel
<http://www.discoveryeducation.com/teachers/free-lesson-plans/understanding-space-travel.cfm>
- Nasa Space Place Activities for Parents and Educators
<https://spaceplace.nasa.gov/menu/parents-and-educators/>
- STEM Leadership Center: Resources for Teaching About Space Exploration
http://www.stemedcenter.org/blog_files/space-exploration-resources.html