

GLOSSARY

Aft – close to the rear of a vehicle such as the space shuttle orbiter

Astronaut – a person trained to travel and work in space

Countdown – the process of counting backward before a rocket launch

Crew – a team of people trained to live and work together in space

Docking – two spacecraft joining or attaching in space

Docking port – the part of a spacecraft where another spacecraft attaches

External Tank - large orange tank filled with liquid hydrogen and oxygen used to power the space shuttle main engines

European Space Agency (ESA) – eleven European countries cooperating to build the International Space Station

Extravehicular Activity (EVA) – a spacewalk performed by an astronaut

Goddard, Robert – American rocket scientist and researcher known as “the father of modern rocketry”

International Space Station (ISS) – orbiting science laboratory built by sixteen nations

Kennedy Space Center (KSC) – NASA center in Florida where the space shuttle is processed and launched

Launch pad - the place from which a rocket launches

Liftoff – the moment a rocket begins to rise above the launch pad

Main engines – three rocket engines on the space shuttle orbiter that are powered by the propellant in the external tank

Microgravity – the presence in space of very little gravity

Mission – the assigned task or goal of a spacecraft or a crew

National Aeronautics and Space Administration (NASA) – the United States government agency that oversees space exploration

Newton, Isaac – scientist that developed three laws to describe and explain motion

Newton’s Third Law of Motion – the law that states that for every action, there is an equal and opposite reaction

Orbit – the path an object follows around another object, such as the ISS circling around the Earth

Orbital Maneuvering System – engines used by space shuttle orbiter to adjust orbit

Orbiter – reusable part of the space shuttle that carries people and cargo to and from space

Partner Nations – sixteen nations that work together to build the ISS

Payload Bay – the area in the orbiter that holds cargo, labs, or ISS components

Progress - the Russian built spacecraft that delivers supplies to the ISS

Proton – the Russian built rocket that carries modules or components to the ISS

Robotic Arm – mechanical arm-like device in the payload bay of orbiter; operated by astronauts to lift and maneuver spacewalkers, cargo, or ISS components



Rocket – vehicle that carries people and cargo to space

Solid Rocket Boosters (SRB) – two reusable white rockets on the space shuttle that burn solid propellants

Soyuz – Russian built rocket that takes the Progress spacecraft and Soyuz capsule to space

Soyuz Spacecraft – Russian built spacecraft that carries crews to and from space

Space Shuttle – the reusable United States spacecraft used to transport people and cargo to space; also known as the Space Transportation System (STS)

Space Transportation System (STS) – the reusable United States spacecraft that consists of the orbiter, the solid rocket boosters, and the external tank; the space shuttle



SUGGESTED READING

A list of book titles appropriate for the Early Childhood classroom follows. Children and adults can use these books to learn more about space travel, rockets, and the International Space Station. Many additional books on these topics are also available.

Anderson, Joan. (1993), *Ritchie's Rocket*. Morrow Junior Books, New York. ISBN: 0-688-11305-2. *A young boy builds a rocket and travels to space.*

Asch, Frank. (1983), *Mooncake*. Prentice-Hall, Englewood Cliffs, NJ. ISBN: 0-13-601013-X. *Bear builds a rocket to go to the Moon.*

Barton, Byron. (1988), *I Want to Be An Astronaut*. Harper Collins, New York. ISBN: 0-06-443280-7. *A young child becomes an astronaut and travels on the space shuttle.*

Bergin, Mark. (1997), *Space Shuttle*. Franklin Watts, Danbury, CT. ISBN: 0-531-14573-5. *Pictures and information on the space shuttle.*

Branley, Franklyn M. (2000), *The International Space Station*. Harper Collins, New York. ISBN: 0-06-445209-3. *Information on the ISS for younger students.*

Branley, Franklyn M. (1998), *Floating in Space*. Thomas Y. Crowell, New York. ISBN: 0-06-025432-7. *Information on living in space for the early learner.*

Branley, Franklyn M. (1987), *Rockets and Satellites*. Thomas Y. Crowell, New York. ISBN: 0-06-445061-9. *Information on and pictures of rockets and the shuttle launch sequence.*

Buttonwood, Betsy. (1996), *Rockets*. Goodyear Books, Glenview, IL. ISBN: 0-673-36333-3. *Easy reader using rockets to teach color words.*

Campbell, Peter A. (1995), *Launch Day*. The Millbrook Press, Brookfield, CT. ISBN: 1-56294-611-0. *A description of the preparation, launch, and landing of a space shuttle.*

Cole, Norma. (1994), *Blast Off! A Space Counting Book*. Charlesbridge Publishing, Watertown, MA. ISBN: 0-606-06237-8. *A counting book with a space theme.*

Dyson, Marianne J. (1999), *Space Station Science: Life in Free Fall*. Scholastic, New York. ISBN: 0-590-05889-4. *Higher-level book with information, pictures, and experiments relating to the ISS.*

Eugene, Toni. (1999), *Exploring Space*. National Geographic Society, Washington, DC. ISBN: 0-7922-6671-4. *Photographs and information about shuttle launches.*

Graham, Jan. (1998), *The Best Book of Spaceships*. Kingfisher, New York. ISBN: 07534-5133-6. *Descriptions and pictures of rockets and the shuttle launch sequence.*

Hancock, David. (1998), *The Amazing Pop-Up Pull-Out Space Shuttle*. DK Publishing, New York. ISBN: 0-7894-3457-1. *Four-foot 3-D foldout model of the space shuttle.*

Hayden, Kate. (2000), *Astronaut: Living in Space*. Dorling Kindersley, New York. ISBN: 0-7894-5421-1. *An easy reader on the life of an astronaut.*

Hopkins, Lee Bennett. (1995), *Blast Off! Poems About Space*. Harper Collins, New York. ISBN: 0-06-024261-2. *Poems about space and space travel.*

Inkpen, Mike. (2001), *Rocket*. Harcourt, Inc., New York. ISBN: 0-15-216254-2. *Animals build and launch a rocket.*



Kirk, Daniel. (1999), **Hush Little Alien**. Hyperion Books, New York. ISBN: 0-7868-0538-2. *A cosmic lullaby with rockets.*

Langille, Jacqueline and Bobbie Kalman. (1998), **The Space Shuttle**. Crabtree Publishing, New York. ISBN: 0-86505-678-1. *Pictures of the shuttle and shuttle launch sequence.*

Loomis, Christine. (2001), **Astro Bunnies**. G.P. Putnam, New York. ISBN: 0-399-23175-7. *Bunnies travel on a rocket to space.*

Miller, Edward. (2001), **Rockets**. Grosset and Dunlap, New York. ISBN: 0-448-42461-4. *Book featuring a variety of rocket stickers.*

Mitton, Tony and Ant Parker. (1997), **Roaring Rockets**. Kingfisher, New York. ISBN: 0-7534-5106-9. *Rhyming book about animals traveling on a rocket.*

Rey, H. A. (1957), **Curious George Gets a Medal**. Houghton Mifflin, Boston. ISBN: 0-395-16973-9. *George's adventures include a ride on a rocket.*

Richards, Jon. (1998), **Space Vehicles**. Copper Beech Books, Brookfield, CN. ISBN: 0-7613-0721-4. *Cut-away views of space vehicles.*

Ride, Sally with Susan Okie. (1986), **To Space and Back**. Lothrop, Lee and Shepard Books, New

York. ISBN: 0-688-06159-1. *Higher-level book with information and pictures about a trip into space.*

Scieszka, Jon. (2001), **Baloney (Henry P)**. Viking, New York. ISBN: 0-0-670-89248-3. *A young alien uses his imagination to tell a story of a rocket ride.*

Sipiera, Diane M. and Paul. (1997), **Space Stations**. Children's Press, New York. ISBN: 0-516-20450-5. *Book for younger students that examines living and working on space stations.*

Wallace, Karen. (2001), **Rockets and Spaceships**. Dorling Kindersley Publishing, New York. ISBN: 0-7894-7359-7. *Beginning reader with rocket pictures and information.*

Weimer, Tonja E. (1993), **Space Songs for Children: Fun Songs and Activities about Outer Space**. Pearce-Evetts Publishing, Greenville, SC. ISBN: 0936-823-119. *Book and cassette with space songs and activities.*

Wilson-Max, Ken. (2000), **Big Silver Space Shuttle**. Scholastic, New York. ISBN: 0-439-13656-3. *A pop-up book on the space shuttle.*

