Outer Space

Outer Space offers a (quickly expanding) infinity of topics to read about, from space explorers to the geography of the universe to the possibility of life on other planets. There are galaxies of both fiction and non-fiction books on this topic – who could resist?

Introduction: Planet Facts

Start by introducing the subject. Teach the kids a mnemonic device for remembering the order of our solar system. Either make one up beforehand, make one up in a group or use this tried and true one:

Mother -- Mercury
Very -- Venus
Thoughtfully -- Terra (Earth)
Made -- Mars
A -- Asteroid Belt
Jelly -- Jupiter
Sandwich -- Saturn
Under -- Uranus
No -- Neptune
Protest -- Pluto (mention that Pluto is a dwarf planet)

Talk about the bare-bones distinguishing characteristics of each planet. Mars is red, Jupiter has a big spot, Saturn has rings, etc.. Which planets are made of rock and which are made of gas? Do other planets have water? Do they have moons? Encourage speculation about extraterrestrial life and come armed with modern scientific speculations of your own!

Books

Ages 3 to 6

I Want to Be an Astronaut by Byron Barton

This picture book describes the life of an astronaut: blasting off with the crew, eating ready-made meals, sleeping in zero gravity, wearing a space suit and walking around in space, etc. The text is very simple and the font is big, with no more than one line per page, so this is a great choice for young readers.

Sheep Blast Off by Nancy Shaw

"Something has landed! What can it be?" Sheep find out in this picture book. Shaw's sheep, featured in other titles including the original, Sheep in a Jeep, and Sheep Out to Eat and Sheep Take a Hike,
discover a spaceship and blast off through the stratosphere. With minimal, rhyming text and hilarious pictures of sheep shenanigans, this book answers the age old question: what would sheep get up to in space?

**Ages 5 to 8**

*The Moon Book* by Gail Gibbons

A pleasant combination of narrative, illustration and facts and numbers, this book focuses on a basic astronomical mystery: our own moon! It's written so that you can read as little or as much as you want; you could read the narrative to a big group, throwing in as many facts as you wanted, or sit with a kid one-on-one going over more of the details. Mixing in the history of human thought about the moon, Gibbons writes a very simple scientific introduction to a complicated subject!

*The Moon Might Be Milk* by Lisa Shulman

A step back from science, this book tells the story of Rosie, a little girl who wonders what the moon is made of. In a quest that involves animal friends Cat, Hen and Butterfly, Rosie considers all kinds of options before her grandmother helps her come to a delicious conclusion!

**Ages 7 to 10**

*Once Upon a Starry Night: A Book of Constellations* by Jacqueline Mitton

Mitton's book tells the stories behind the stars. She pairs colorful pictures of the heroes and animals outlined in stars with short retellings of the associated myths. Be sure to check out its companion, *Zoo in the Sky: A Book of Animal Constellations.*

*DK First Space Encyclopedia*

No space Read-Aloud would be complete without a book of the hard facts. DK’s *First Space Encyclopedia* is a good pick for the younger
crowd, with big text and plenty of pictures. For older kids, ages 7 to 11, kids to page through. Talk about the pictures. With the older kids, try to engage them in conversation one page at a time.

Other great books about space:

*On the Moon* by Anna Milbourne
*Bugs in Space* by David A. Carter
*Comets, Stars, the Moon and Mars: Space Poems and Paintings* by Douglas Florian
*13 Planets: The Latest View of the Solar System* by David A. Aguilar
*Star Seeker: A Journey to Outer Space* by Theresa Heine

Activities

**Solar System Mobile**

This craft requires quite a bit of prep, but it's not difficult to put together and makes an awesome take-away from the Read-Aloud. Use paper plates, yarn, and pre-cut paper circles (nine per kid, of various sizes -- these will represent the 8 planets and the sun) to make a hanging mobile model of the solar system.

It will be easiest if you bring a number of paper plates with holes for yarn already punched in them, so that all the kids have to do is decorate their "planets" with crayons and markers (bring pictures of the planets so that they can color them realistically if they like -- not that realism is necessary) and hang them from the paper plate.

This version of the craft is more specific, fancy and science-focused than what we have in mind -- but the basic idea is the same.

**Constellation Cards**

From *Once Upon a Starry Night* and *Zoo in the Sky*, have each kid pick a favorite constellation. If you have a big group, you might want to photocopy some of the pages so everybody can look at them at the same time.

After picking a constellation, have the kids draw the shape of the constellation and trace it in glue on black paper. Some of them can do this part while the others are still picking their constellation.

Next, over a paper plate, have each kid shake silver glitter over their card so that the constellation is outlined in glitter, shining like it's made of stars.

**Kids in Orbit**
For an activity that involves some moving around, make a model of the solar system with your bodies! First explain that planets move around the sun; the time it takes to move around the sun is one year.

Next, assign each kid to be a planet, putting each of them a different distance from the "sun", who can either be a kid or a volunteer. Then have everybody move around the sun. Their orbits should take different amounts of time, with "inner planets" completing their elliptical paths faster than "outer planets".

Go around for a few "years" (times around the sun) for every planet-- again, inner planets will complete more "years" than outer planets. Why do some planets take longer to go around the sun than other planets?