



NASA SpacePlace

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News and Notes for formal and informal educators

The Space Place is a NASA website for elementary school-aged kids, their teachers, and their parents.

It's colorful!
It's dynamic!
It's fun!

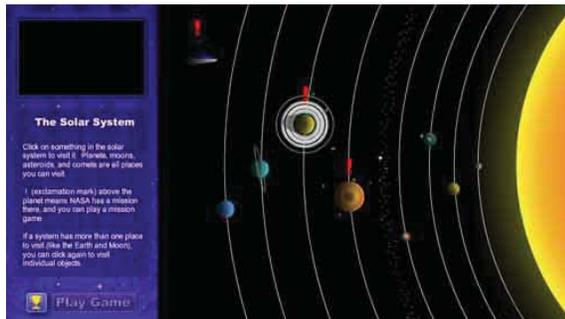
It's rich with science, technology, engineering, and math content!

It's informal.
It's meaty.
It's easy to read and understand.
It's also in Spanish.
And it's free!

It has 130 (and counting) separate modules for kids, including hands-on projects, interactive games, animated cartoons, and amazing facts about space and Earth science and technology.

NASA is celebrating the Martian "Year of the Solar System" from now until August 2012. During this time, NASA will launch missions to Earth, the Moon, Mars, and Jupiter. Missions will arrive at Mercury and asteroid Vesta. Missions will encounter Comets Hartley II and Tempel 1. It will be an exciting year. Here at The Space Place, we are ready to help students understand these events and share in the excitement.

What's new on spaceplace.nasa.gov . . .



In observance of the Year of the Solar System (actually a 23-month Martian year long), we have built the Solar System Explorer "supergame." An animated solar system is ready to explore. Click on an object to zoom in and learn about it, read about any space missions there, and maybe play a game. Several mini-games are contained within the supergame. The game also keeps track of the players' exploration achievements and game scores. Players can post their achievements and scores to their Facebook pages and challenge their friends to do better.

More mini-games are coming soon. Check out the Solar System Explorer at <http://tiny.cc/solar-system>.

Space Place en español



Welcome to *El Mundo de Copocuqu*, the world of the Copocuquus. They live on a tiny asteroid in a galaxy far, far away. Their name comes from their insatiable curiosity. They are always asking questions: *¿Cómo, Por Qué, Cuándo y Qué?* Thus their name: the Copocuqu. One little Copocuquita named Comocomo has a problem. She loves to make paper airplanes, but every time she tries to fly one, it just sails off into space.

The story takes readers on a fun adventure to a faraway place, which just happens to be subject to the same laws of physics as our own solar system. At the end of the story is a picture dictionary with all the new space and science words introduced.

The storybook, in .pdf form which you can download and print, is written by Adriana C. Ocampo Uria, a planetary geologist working for NASA. The book is colorfully illustrated by Eliseo Balaguer Calpe, a former spacecraft engineer.

Click on the link at <http://spaceplace.nasa.gov/sp/kids>.

Spotlight on Cool Subjects—like the solar system

The “Planets and the solar system” menu (<http://tiny.cc/planet-menu>) covers everything from the Sun to Pluto. The newest activity there is the Deep Space Network Uplink-Downlink game. The huge radio telescopes of the Deep Space Network keep the planetary space program grounded—so to speak. Visitors will have fun operating the huge antennas to send commands to the spacecraft and to collect data and images they are beaming back from all over the solar system.



Other games, puzzles, hands-on projects, interactive viewers, an ode in verse, and lots of amazing facts are linked to this page. The solar system is a favorite topic area for Dr. Marc too, so you will find links here to several of his “Ask Dr. Marc” answers, with audio.

For the classroom

When children learn about the solar system, Pluto is often a favorite. Lots of kids (of all ages) were upset when the International Astronomical Union decided in 2006 to “demote” Pluto to dwarf planet status, pointing out that Pluto is actually just one of the 100,000 thousand or so icy Kuiper Belt Objects. NASA had already launched its New Horizon spacecraft in January 2006. This spacecraft is still on its way to Pluto, its moon Charon, and the Kuiper Belt, and won’t arrive until 2015.

A Space Place classroom activity article describes the New Horizons mission to Pluto-Charon and the extreme challenges presented to the scientists and engineers designing the mission. Read about the very strange Pluto-Charon system, and use the questions at the end for class discussion or as a writing assignment. Go to <http://tiny.cc/new-horizons>.

Out of school time



The all-time favorite hands-on activity on The Space Place is the CD Saturn ornament—just the thing for a holiday decoration. The materials are simple, the construction is fun, and the result is gorgeous. Give it a try at <http://tiny.cc/cd-saturn>.

Special days ahead

November 4: EPOXI spacecraft meets Comet Hartley II today!

Download and print a fun comet factsheet at <http://tiny.cc/comet-fun>.

November 11, 1889: Birthday of Edwin Hubble.

Hubble discovered that ours isn’t the only galaxy and that the universe is expanding. That partly explains why the sky is dark at night. Check out Dr. Marc’s explanation at <http://tiny.cc/dark-night> for a more complete answer.

November 27, 1571: Birthday of astronomer and mathematician Johannes Kepler.

Kepler is the father of modern astronomy. Find out what Kepler did that began to unloose the secrets of the sky, <http://tiny.cc/planet-distance>. Do a fun, outdoor activity with students to demonstrate the scale of the solar system, <http://tiny.cc/orbit-scale>.

December 7, 1995: The Galileo spacecraft is first to orbit an outer planet.

That planet was Jupiter. Check out Jupiter and the Juno mission mini-game on the new Solar System Explorer supergame at <http://tiny.cc/solar-system>.

December 14: Geminids meteor shower peaks tonight!

Meteor showers occur when Earth passes through the path of icy, rocky debris left behind by a comet. Play the “Tails of Wonder” game and learn more about comets at <http://tiny.cc/comet-tails>.

December 19, 1972: The last of the manned missions to the Moon, Apollo 17, returns to Earth.

Did the astronauts find water on the Moon? Have we found water yet? Check out “I See Ice” and find all the places in the solar system where ice can be found—including some surprises. Go to <http://tiny.cc/icy-places>.



Don't forget . . .

The Space Place calendar is available to download and print for the entire school year at <http://tiny.cc/sp-calendar>. You’ll find more fun days to celebrate by visiting The Space Place and doing activities, playing games, or reading amazing facts.