SOLAR SYSTEM

The sun together with the eight planets, moons, asteroids, meteoroids, comets, and all other celestial bodies that orbit the sun

FUN FACTS:

• Our Solar System is located in the outer reaches of the Milky Way Galaxy, along the minor Orion Spur.
• The Milky Way is a barred spiral galaxy, which means it has two major spiral arms, plus a central bar.
• Almost everything we can see in sky is within the Milky Way Galaxy, which has about 200 billion stars, most not visible to the eye from Earth.
• In the center of the Milky Way Galaxy is a massive Black Hole.

DO THIS:

• View the moon through the Celestron First Scope Telescope. Describe what you see.
• View planets and stars using the telescope. How are they different from each other?
• Try to identify different constellations. Find out how they got their names.
• Keep a chart of the moon phases for one month, noting the time you observed the moon and drawing the shape of the moon each night.
READ MORE ABOUT IT

*The Night Sky* by Nigel Henbest and Stuart Atkinson; J 520 HEN

*Big Bang! The Tongue-tickling Tale Of A Speck That Became Spectacular* by Carolyn Cinami DeCristofano; J 523.18 DEC

*The Mighty Mars Rovers: The Incredible Adventures of Spirit and Opportunity* by Elizabeth Rusch; J 523.43 RUS

EXTENDER EXPERIMENTS & AWESOME ACTIVITIES

**Moon Craters**

Do this messy experiment outside. Start with a medium-sized box, larger and deeper than a shoebox. Fill the box with 3-6” of flour or cornmeal, and gently shake until the surface is level. For more dramatic results, cover the flour with a thin layer of colorful powdered drink mix. Drop a golf ball several times from varying heights, measuring the depth and diameter of each crater. Record your measurements and compare the results. What do you observe? Repeat with different sized balls (tennis, baseball, softball), shaking the surface level between trials.

[http://www.spacegrant.hawaii.edu/class_acts/CratersTe.html](http://www.spacegrant.hawaii.edu/class_acts/CratersTe.html)

**Moon Phases**

In a dark room, one child (Earth) holds a ball (Moon) slightly above her head. Another child (Sun) stands facing the Earth, so the Moon is between the Earth and Sun. The Sun shines a flashlight directly onto the Moon, so the Earth sees only a dark surface. The Earth stands still, while the Sun circles slowly around, keeping the light shining on the Moon, so more and more of the side of the Moon facing the Earth is slowly illuminated. Continue until the entire surface is lit (Full Moon), continuing until the entire surface is dark again (New Moon). [http://sciencenetlinks.com/media/filer/2011/09/27/tf-snl-by-light-of-the-moon.pdf](http://sciencenetlinks.com/media/filer/2011/09/27/tf-snl-by-light-of-the-moon.pdf)

QUICK TAKE

Shape leftover cold mashed potatoes into lumpy asteroid shapes, making dents with your fingers, then bake on a greased cookie sheet in a 375°F oven for 25 minutes or until golden brown. Cool slightly before eating.