

National Aeronautics and
Space Administration

A composite image on the left side of the slide. It features a silhouette of a human head in profile, facing right, against a dark background. Inside the silhouette, several celestial bodies are arranged: Saturn with its rings, Jupiter, the Earth, the Moon, and several smaller rocky planets. The background of the entire slide is a vibrant blue space scene with a bright starburst in the upper left and numerous smaller stars.

YEAR OF THE SOLAR SYSTEM

NASA's Year of the Solar System An Overview



Year of the Solar System

WELCOME!

Spanning a Martian Year – 23 months – the Year of the Solar System celebrates the amazing discoveries of numerous NASA missions as they explore our near and distant neighbors and probe the very outer edges of our Solar System.

It is an unprecedented time in planetary sciences as we learn about new worlds and make new discoveries!

JOIN THE CELEBRATION!

<http://solarsystem.nasa.gov/yss>



YSS – Mission Events

New missions will further unveil the secrets of Jupiter, the Moon, and Mars. Other robotic explorers will encounter comets and asteroids, journey to dwarf planets, and continue to unlock the mysteries of our Sun, Mercury, Saturn, and our home planet, Earth.

2010

October 14 – 50th Anniversary of Exo/Astrobiology

November 4 – EPOXI encounters Comet Hartley 2

November 19 – Launch of O/OREOS

December 7 – Venus Climate Orbiter (JAXA) arrives at Venus

2011

February 14 – Stardust-NExT encounters comet Tempel 1

March 18 – MESSENGER orbit insertion at Mercury

July – Dawn orbit insertion at asteroid Vesta

August – Juno launch to Jupiter

September – GRAIL launch to the Moon

November – MSL launch to Mars

2012

Early 2012 – Mars Opportunity Rover gets to Endeavour Crater

Mid-year – Dawn leaves Vesta starts on its journey to Ceres

August – MSL lands on Mars

YSS – Thematic Calendar

Each month from October 2010 through August 2012 will highlight different aspects of our Solar System – its formation, volcanism, ice, life – weaving together activities, resources, and ideas for teachers, clubs, and organizations.

How did our Sun's family of planets and bodies originate?			
OCTOBER 2010 The Journey Begins (Overview) Get Involved: Solar System Scale Model YSS-Related Events: Astronomy Day; Astronomy Week	NOVEMBER 2010 Birth of Worlds (Solar System Formation) Mission: EPOXI Comet Encounter; O/OREOS Launch Get Involved: Solar System Scale Model 	DECEMBER 2010 The Planets: A Family Affair (Composition, Characteristics) Get Involved: Solar System Scale Model YSS-Related Events: Total Lunar Eclipse; Geminids	JANUARY 2011 The Planets: A Family Affair (Composition, Characteristics) Get Involved: Solar System Scale Model
How has our solar system evolved to its current diverse state?			
FEBRUARY 2011 Small Bodies/Big Impacts (Comets) Mission: Stardust/NEXT Comet Encounter Get Involved: Solar System Scale Model YSS-Related Event: Engineering Week 	MARCH 2011 Ancient Astronomers/Modern Tools Mission: MESSENGER Orbit Insertion YSS-Related Event: Sun-Earth Day 	APRIL 2011 Water, Water, Everywhere! YSS-Related Events: Earth Day; Earth Week	MAY 2011 Volcanism! YSS-Related Events: Astronomy Day; Astronomy Week
JUNE 2011 Impacts!	JULY 2011 Rocks in Space (Asteroids) Mission: Dawn @ Vesta 	AUGUST 2011 Windy Worlds (Atmospheres) Mission: Juno launch to Jupiter YSS-Related Event: Perseids 	SEPTEMBER 2011 Gravity: It's What Keeps Us Together Mission: GRAIL @ Moon YSS-Related Events: Astronomy Day; Astronomy Week 
OCTOBER 2011 Moons and Rings: Our Favorite Things Mission: GRAIL @ Moon Get Involved: International Observe the Moon Night 	NOVEMBER 2011 Magnetospheres: Planetary Shields Mission: MSL launch, Searching for Signs of Life 	DECEMBER 2011 Evolving Worlds (Planetary Evolution) YSS-Related Event: Geminids	JANUARY 2012 Evolving Worlds (Planetary Evolution)
FEBRUARY 2012 Far-Ranging Robots YSS-Related Event: Engineering Week	MARCH 2012 Shadows of the Sun YSS-Related Events: Sun-Earth Day; Venus, Jupiter Conjunction	APRIL 2012 Ice! YSS-Related Events: Earth Day; Earth Week; Astronomy Day; Astronomy Week; Jupiter, Venus, Mars, Saturn Visible	MAY 2012 New Data, New Ideas Case Studies: Pluto, Models of Solar System Formation/Evolution, Life in the Extremes
How did life begin and evolve on Earth? Are we alone?			
JUNE 2012 Got Life? YSS-Related Event: Venus Transit	JULY 2012 Got Life? Missions: MSL landing? 	AUGUST 2012 Discovering New Worlds Missions: Kepler (Astro)? YSS-Related Event: Perseids 	http://solarsystem.nasa.gov/yss



YSS Website

Events, materials, and ways to get involved are highlighted on an interactive YSS website! The website includes:

- Information about mission milestones, night sky viewing opportunities, and nation-wide events like Sun-Earth Day, Earth Day, and International Observe the Moon Night
- Educational activities for K-12 and undergraduate classrooms and clubs/organizations tied to the BIG QUESTIONS of planetary science
- Downloadable resources such as bookmarks, the calendar, PowerPoint files, and website widgets
- Ways to get involved: register your events for display on the calendar and map, share your stories, view images and video, and participate via Facebook and Twitter

<http://solarsystem.nasa.gov/yss>



Solar System Exploration Presents:

YEAR OF THE SOLAR SYSTEM

Home

Topics

About YSS

Get Involved

Downloads

Friends & Partners

Missions

Calendar



New Resource: From Earth to the Solar System

Celebrating NASA's Year of the Solar System, FETTSS is a collection of images that showcase the excitement of planetary exploration.

[Read More ▶](#)



Get Involved



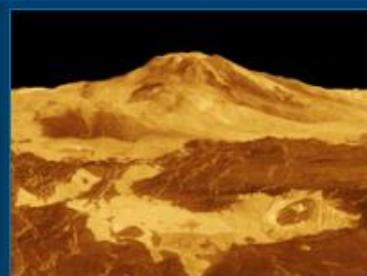
27 Apr 2011 - 25 Jan 2012
[Rediscovering the Solar System](#)

1 May 2011 - 31 May 2011
YSS Theme: **Volcanism!**

8 May 2011 - 31 May 2012
[Science on a Sphere and School Outreach at Challenger Learning Center](#)

12 May 2011
[Exploring Space Lecture: Exploring Mercury by Spacecraft](#)

Topics



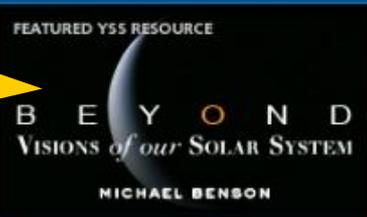
Volcanism!

There is plenty of hot stuff in our solar system, even in the outer frozen realms; so much that planetary scientists have found evidence of volcanism on every terrestrial planet and on many of the moons and even some asteroids!

[More ▶](#)

Sections

- [Overview ▶](#)
- [Classrooms ▶](#)
- [Organizations & Clubs ▶](#)
- [Educational Resources ▶](#)
- [Background ▶](#)
- [Featured Missions ▶](#)
- [Events ▶](#)
- [Solar System Explorers ▶](#)





Solar System Exploration Presents:

YEAR OF THE SOLAR SYSTEM



Home

Topics

About YSS

Get Involved

Downloads

Friends & Partners

Missions

Calendar



TOPICS

Background

Featured Missions

Events

Solar System Explorers

Overview

Classrooms

Organizations & Clubs

Featured Activity

Educational Resources



July 2011: Asteroids: Leftovers from Planet Building



The asteroid Gaspra as seen by the Galileo spacecraft en route to Jupiter. (Image Credit: NASA)

When we build things, there are often building materials left over. Asteroids are bits of building material remaining from the formation of our solar system (for more about solar system formation, check out November 2010's topic [Birth of Worlds](#)). During the solar system's formation, bits of dust and rock bumped into each other, sometimes sticking together-accreting-and sometimes scattering. But even after the planets formed, there remained residual materials-asteroids.

Today, most asteroids orbit the Sun farther than Mars but closer than Jupiter-a region popularly known as the asteroid belt. Though thousands of asteroids reside in the main belt, this region is not densely populated -- all of

Asteroids can have families!

Some asteroids have moons, some are pairs orbiting each other, and still others appear to be rubble piles loosely held together by gravity.





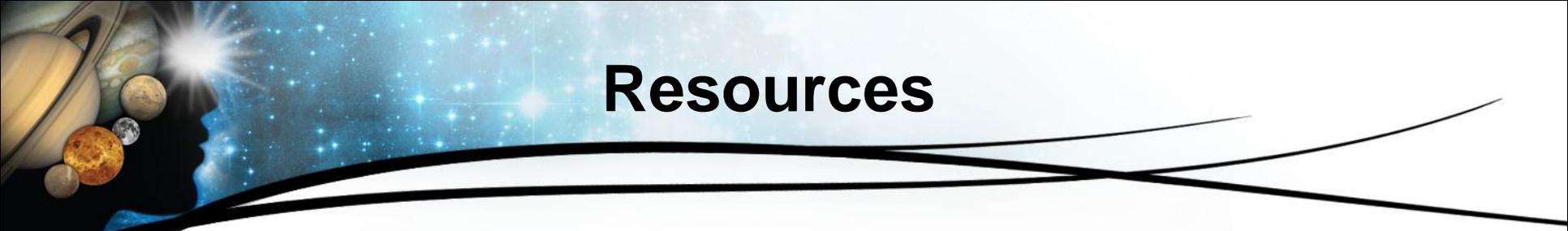
Year of the Solar System

GET INVOLVED!

- Attend a YSS event
- Host a YSS event
- Share your YSS stories and images on the website
- Integrate YSS into your programs
- Inform your networks, partners, friends, family
- Partner with us
- Tell us about theme-specific resources, activities, program ideas you have or need

JOIN THE CELEBRATION!

<http://solarsystem.nasa.gov/yss>



Resources

- Year of the Solar System website <http://solarsystem.nasa.gov/yss>
- Beyond: Visions of our Solar System <http://www.beyondexhibition.net/splash/flash/>
- Division of Planetary Sciences Slide Sets <http://dps.aas.org/education/dpsdisc/>
- Eyes on the Solar System <http://solarsystem.nasa.gov/eyes/index.html>
- From the Earth to the Solar System (FETSS) <http://astrobiology.nasa.gov/nai/fettss/>
- iPhone and iPad apps
 - NASA iPad app HD – Year of the Solar System feature!
<http://itunes.apple.com/us/app/nasa-app-hd/id387310098?mt=8>
 - NASA iPhone app <http://itunes.apple.com/us/app/nasa-app/id334325516?mt=8>
 - Night Sky Network Go Stargaze iPhone app <http://itunes.apple.com/us/app/go-stargaze/id380833895?mt=8>
- Planetary Science Research Discoveries <http://www.psr.d.hawaii.edu>
- Solar System Exploration Website <http://solarsystem.nasa.gov>
- Solar System Lithograph Sets http://solarsystem.nasa.gov/multimedia/download-detail.cfm?DL_ID=262
- Space School Musical <http://discovery.nasa.gov/musical/index.cfm>

