

Explore Ice and Water in Our Solar System!

Websites

NASA and the International Polar Year

http://www.nasa.gov/mission_pages/IPY/main/index.html What are NASA scientists discovering at Earth's poles? Learn about the research projects and missions, get the latest research results, and peruse images, videos, blogs, and podcasts. You can also receive stories, images and videos by subscribing to the IPY RSS feed!

International Polar Year

<http://www.ipy.org/> Celebrate the International Polar Year! Learn about the ice, environment, ecosystems, animals, plants, and people of the Arctic and Antarctic – and how these interconnected entities have - and continue to change.

Interactive Image Mosaic of Antarctica

<http://lima.nasa.gov/> Learn about Antarctica and view satellite images provided by the Landsat Image Mosaic of Antarctica (LIMA). Discover Antarctica's features and mysteries and see what it really looks like! There are also a lot of useful resources listed.

Earth's Polar Regions

<http://www.windows.ucar.edu/tour/link=/earth/polar/polar.html> Windows to the Universe shares information about Earth's Polar Regions and the changes that are occurring in these delicate regions. Children can learn about the environment, ecosystems, animals, indigenous people, exploration, and the polar regions of Mars. This site can be explored on three different levels depending on the age/knowledge of the reader. Games, resources, links, and educator pages are available.

Polar Palooza!

<http://passporttoknowledge.com/polar-palooza/pp01.php> Learn about the ice at Earth's poles. Meet the researchers and discover their research of the Arctic and Antarctic. You can also meet the wildlife at each pole. Do polar bears and penguins live in the same regions?

Solar System Explorations, Ice Cold

<http://solarsystem.jpl.nasa.gov/educ/themes/display.cfm?Item=IceCold> This NASA Web site takes you through the solar system where ice has been found. It discusses the missions that discovered the ice and provides activities related to ice.

Cassini Mission to Saturn

Recent information and great pictures of the icy realm of Saturn that all ages will appreciate.

Saturn: <http://saturn.jpl.nasa.gov/multimedia/images/images.cfm?categoryID=1>

Saturn's Moons: <http://saturn.jpl.nasa.gov/multimedia/images/images.cfm?categoryID=4>

Saturn's Rings: <http://saturn.jpl.nasa.gov/multimedia/images/images.cfm?categoryID=5>

Mars Odyssey THEMIS Instrument

<http://themis.asu.edu/theme-channels> Great pictures of channels on Mars. Check out the other features, too!

European Space Agency's Mars Express

<http://www.esa.int/esa-mmg/mmg.pl?mission=Mars+Express&keyword=+--+%3E+Keyword&idf=+--+%3E+ID&lc=on&subm3=GO> This Image Gallery presents beautiful current images of the surface features of Mars. Check out the video clips.

LCROSS will impact the Moon in its quest for water ice at the lunar poles. Learn more about the possibility of viewing the impact from your backyard this fall at:
<http://lcross.arc.nasa.gov/education.html>!

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Books

Water And Ice. Melinda Lilly, Rourke Publishing, 2006, ISBN: 159515406X.

This book will inspire enthusiasm in children ages 4-8 for the wonder of science. Children will learn about water and ice and have the opportunity to undertake hands-on activities.

The Snowflake : A Water Cycle Story. Neil Waldman, Millbrook Press, 2003, ISBN: 0761323473.

Children ages 4-8 discover the water cycle by following the path of a single drop of water throughout the year. The water drop starts and ends its journey as a snowflake with lots of changes in between.

A Drop of Water. Gordon Morrison, Houghton Mifflin/Walter Lorraine Books, 2006, ISBN: 0618585575.

Morrison takes children ages 4-8 on a journey as he imagines what happens to a drop of water as it goes through the water cycle. Wonderful images and details are included in this book.

Water. Emily Neye, Grosset & Dunlap, 2002, ISBN: 0448428474.

This is a great introductory book to water and its forms for children ages 4-8. The text is large print and easy-to-read and accompanied by wonderful illustrations.

Glaciers. Sandy Sepehri, Rourke Publishing, 2008, ISBN 1600445446.

Children ages 4-8 will enjoy this exploration of what glaciers are and where they are found.

Living in the Arctic (Rookie Read-About Geography). Allan Fowler, Children's Press (CT), 2000, ISBN 0516270842.

Living in the Arctic provides children ages 4-8 with great information about the Arctic such as who and what lives there. The pictures that accompany the text are excellent.

Welcome to the Ice House. Jane Yolen, Putnam Juvenile, 1998, ISBN: 0399230114.

Yolen explores the Arctic landscape and ocean and its inhabitants in this beautifully illustrated book for 4-8 year olds.

Antarctic Ice. Jim Mastro, Henry Holt and Company, 2003, ISBN: 0805065172.

Stunningly illustrated with underwater photographs, this book introduces children, ages 4-8, to the Antarctic sea ice and ocean inhabitants.

White Bear, Ice Bear. Joanne Ryder, Mulberry Books, 1994, ISBN: 0688131115.

In this scientifically accurate and beautifully illustrated book for children ages 5-8, a young boy is transformed into a polar bear and learns about the Arctic environment.

Explore Antarctica (Explore the Continents). Bobbie Kalman and Rebecca Sjonger, Crabtree Children's Books, 2007, ISBN 0778730859.

Children ages 4-8 will discover the wonders of Antarctica from its geography to the plants and animals that make Antarctica home.

Polar Lands (Kingfisher Young Knowledge). Margaret Hyne, Kingfisher, 2005, ISBN 0753458683.

Children, ages 4-8, meet researchers investigating the north and south poles and learn about the geography, environment, and animals of Earth's polar realms. The book explores the delicate ecosystems and the importance of conserving these environments.

A Look at Moons (Out of This World). Ray Spangenburg, Kit Moser, Franklin Watts, 2000, ISBN 0531165140.

This book describes the physical characteristics of the moons in our solar system and the processes and space craft used to gather information about them.

A Look at Saturn (Out of This World). Ray Spangenburg, Kit Moser, Diane Moser, Franklin Watts, 2002, ISBN 0531165647.

This book discusses Saturn – its history, composition, rings, moons, and mysteries that have not been solved.

Saturn. Ron Miller, 21st Century, 2003, ISBN 0761323600.

Saturn records the discovery and exploration of the planet Saturn and discusses its rings and moons, its place in the solar system, and more.

Space Leftovers: A Book About Comets, Asteroids, And Meteoroids. Dana Meachen Rau, Denise Shea, Picture Window Books, 2005, ISBN 1404811370.

This book discusses everything about comets, asteroids, and meteoroids and has great illustrations.

Jupiter. Robin Kerrod, Lerner Publications, 2000, ISBN 0822539071.

Jupiter discusses its formation, makeup, atmosphere, Great Red Spot, magnetism, gravity, moons, and the history of space probes that have gathered information about it. Many colorful photographs, diagrams, and artists' conceptions of scenes in the solar system appear throughout.