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.  

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&Ic=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

**Explore Ice and Water in Our Solar System!**

Books

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.

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.

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.

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

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

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.

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

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

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

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.

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.

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

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

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

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.