



# The Mini Page

**Next Week:**  
School safety

Issue 35, 2023

Founded by Betty Debnam

## Saturn's Discoveries



photo courtesy of NASA

### Mini Fact:

Saturn goes around the sun very slowly. A year on Saturn is more than 29 Earth years.

Saturn is the sixth planet from the sun and the second-largest planet in our solar system. It has rings made of chunks of ice and rock. While people have known about this planet since ancient times, scientists are still making discoveries about it today! The Mini Page learns about Saturn this week.

### Rings

At the end of June 2023, NASA released a vivid image of Saturn and its rings. The image was captured by the James Webb Space Telescope using a special type of camera called **near-infrared** that made the rings stand out. NASA said this was the first time Saturn was captured with this amount of clarity at this wavelength. The planet looks dark, according to NASA, because **methane** gas absorbs a lot of the light from the sun.



courtesy of NASA

The telescope took this image in hopes of learning more about Saturn's moons and potential moons.

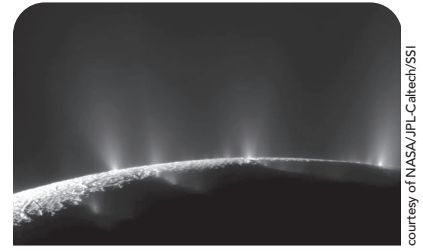
"Any newly discovered moons could help scientists put together a more complete picture of the current system of Saturn, as well as its past," NASA said.

Imaging like this also helps scientists get a better understanding of Saturn's atmosphere. Saturn is made mostly of **hydrogen** and **helium**, which are gases. At its center, however, rocky material surrounds a center of metals, like nickel and iron.

Saturn doesn't have a solid surface, but it does have water vapor in its atmosphere.

### Enceladus

The summer of 2023 was a big time for discoveries regarding Saturn. Not only were moons found and a significant image of the planet captured, but an important element was found on one of its orbiting moons. Enceladus (en-SEH-luh-duhs) has an ocean under its icy crust. This moon's south pole has jets of



courtesy of NASA/JPL-Caltech/SSI

Enceladus' jets of ice water are illuminated by the sun in this photo.

that erupt and release icy grains into the atmosphere. These grains were recently found to contain **phosphorus**, which is considered a building block of life.

In a previous mission, researchers discovered **sodium**, **potassium**, **chlorine** and **carbonate** (CAR-buh-nate) compounds in the icy grains. Researchers said that the combination of compounds found could suggest Enceladus might be able to support life.

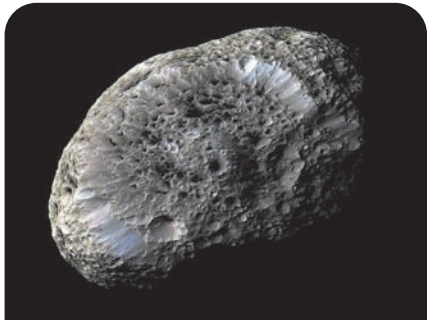
"The important part for habitability is that we found phosphates that have been dissolved in Enceladus' ocean and, with that, are readily available for the formation of potential life," said Dr. Frank Postberg.

### Moons

Earth has only one moon, but NASA reports that Saturn has 146 of them! Some of them are new discoveries. In May 2023, a research team led by Edward Ashton found 62 new moons. This means that Saturn has the most moons of any planet in our solar system.

The moons vary in size — some of them are huge, like the one called **Titan**. Titan is the largest of Saturn's moons, with a diameter of 3,200 miles. Other moons are much smaller, like the size of an arena, according to NASA.

Saturn also has thousands of **moonlets**, or tiny moons, within its compacted rings.



courtesy of NASA/JPL/Space Science Institute

This image of Hyperion, one of Saturn's many moons, shows the interesting details across its surface. Images like this help researchers better understand Saturn and our solar system.

### Resources



#### On the Web:

- [spaceplace.nasa.gov/all-about-saturn/en/](https://spaceplace.nasa.gov/all-about-saturn/en/)

#### At the library:

- "All About the Planet Saturn!" by Baby Professor
- "Saturn" by Steve Foxe

The Mini Page © 2023 Andrews McMeel Syndication

## Try 'n' Find

Words that remind us of Saturn are hidden in this puzzle. Some words are hidden backward or diagonally, and some letters are used twice. See if you can find:

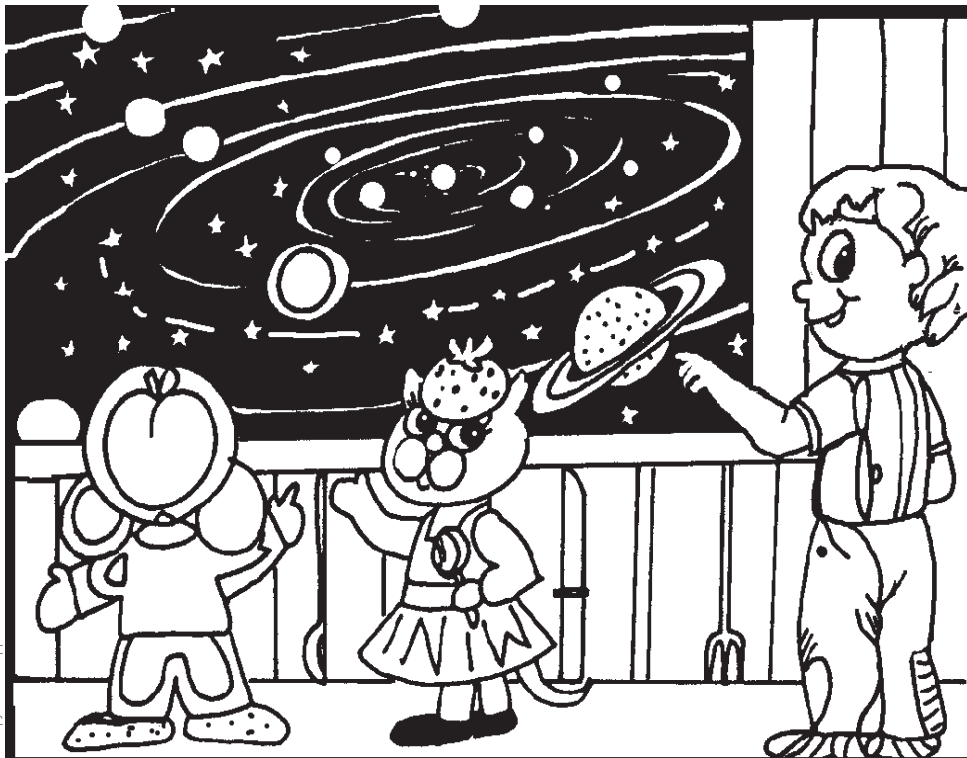


- DISCOVERIES, GAS, HELIUM, HYDROGEN, ICY, IMAGE, JETS, METHANE, MOONS, NASA, PHOSPHORUS, PLANETS, POLE, RINGS, SATURN, SURFACE, TELESCOPE, TITAN.

S T E J E E L O P J R I N G S  
C Q E G A M I P X K W H S R H  
M O O N S U R O H P S O H P S  
P S E H M E T H A N E I H Y A  
S A S A N E C A F R U S T R T  
E G D D I S C O V E R I E S U  
T I T A N W Z P L A N E T S R  
E P O C S E L E T E I I R Y N  
N M U I L E H Q E L C V C U V  
L U R N E G O R D Y H I Y M U

## Mini Spy Classics

Mini Spy and her friends are studying the solar system. See if you can find the hidden pictures. Then color the picture.



Mini Spy Classics appear in the first issue of each month.

Hey Mini Spy Fans! Order your Mini Spy Booklets (Volumes 1, 2, and 3) with 48 of your favorite puzzles! Visit [MiniPageBooks.com](https://MiniPageBooks.com), or call 844-426-1256 to order. Just \$4 plus \$1 shipping.

- word MINI
- dog
- teapot
- saucepan
- strawberry
- fork
- knife
- heart
- peanut
- number 3
- peach
- letter O
- fish
- spoon
- letter C

## Mini Jokes



**Seth:** What did Mars say to Saturn?

**Sylvia:** "Give me a ring sometime!"

## Eco Note



The sun is approaching the peak of its 11-year cycle of activity and recently produced a massive solar storm that briefly disrupted high-frequency radio communication in parts of the U.S. and eastern Pacific region. A blast of charged particles and ultraviolet light on July 2, 2023, reached Earth's ionosphere eight minutes after a sunspot, about eight times the size of Earth, created an intense geomagnetic storm.

adapted with permission from Earthweek.com

### For later:

Look in the newspaper for articles about planets.

**Teachers:** Follow and interact with The Mini Page on Facebook!



The Mini Page © 2023 Andrews McMeel Syndication

### Wonderword Puzzle Books

Millions enjoy Wonderword every day... are you one of them? Get lost in the most essential, habitual and enthralling puzzle!

WonderWordBooks.com, or call 800-642-6480 for more information.

Volumes: \$7.95, Treasuries: \$12.95

\$7 postage and handling (\$23 Canadian) for the first book of an order, then an additional \$1 S&H for each book ordered.

Mail payment to: Andrews McMeel Universal, Wonderword Books, 1130 Walnut, Kansas City, MO 64106.

