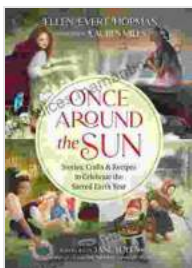


# Once Around the Sun: A Journey Through the Solar System

Our solar system is an awe-inspiring place, filled with celestial wonders that have captivated humanity for centuries. From the brilliance of the sun to the icy depths of Pluto, each planet and celestial body tells a unique story about the origins and evolution of our cosmic neighborhood.

In this article, we embark on a grand tour of the solar system, traveling from the sun to the outer reaches of space. Along the way, we'll explore the intriguing characteristics of each planet, moon, and dwarf planet, and uncover the fascinating science that shapes their existence.



## Once Around the Sun: Stories, Crafts, and Recipes to Celebrate the Sacred Earth Year by Ellen Evert Hopman

★★★★☆ 4.5 out of 5

Language : English  
File size : 14461 KB  
Text-to-Speech : Enabled  
Screen Reader : Supported  
Enhanced typesetting : Enabled  
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## The Sun: Our Guiding Light

At the heart of our solar system lies the sun, a colossal ball of incandescent gas that provides us with light, heat, and energy. The sun's immense gravity holds our planets in orbit, creating the celestial clockwork that governs our days, months, and years.

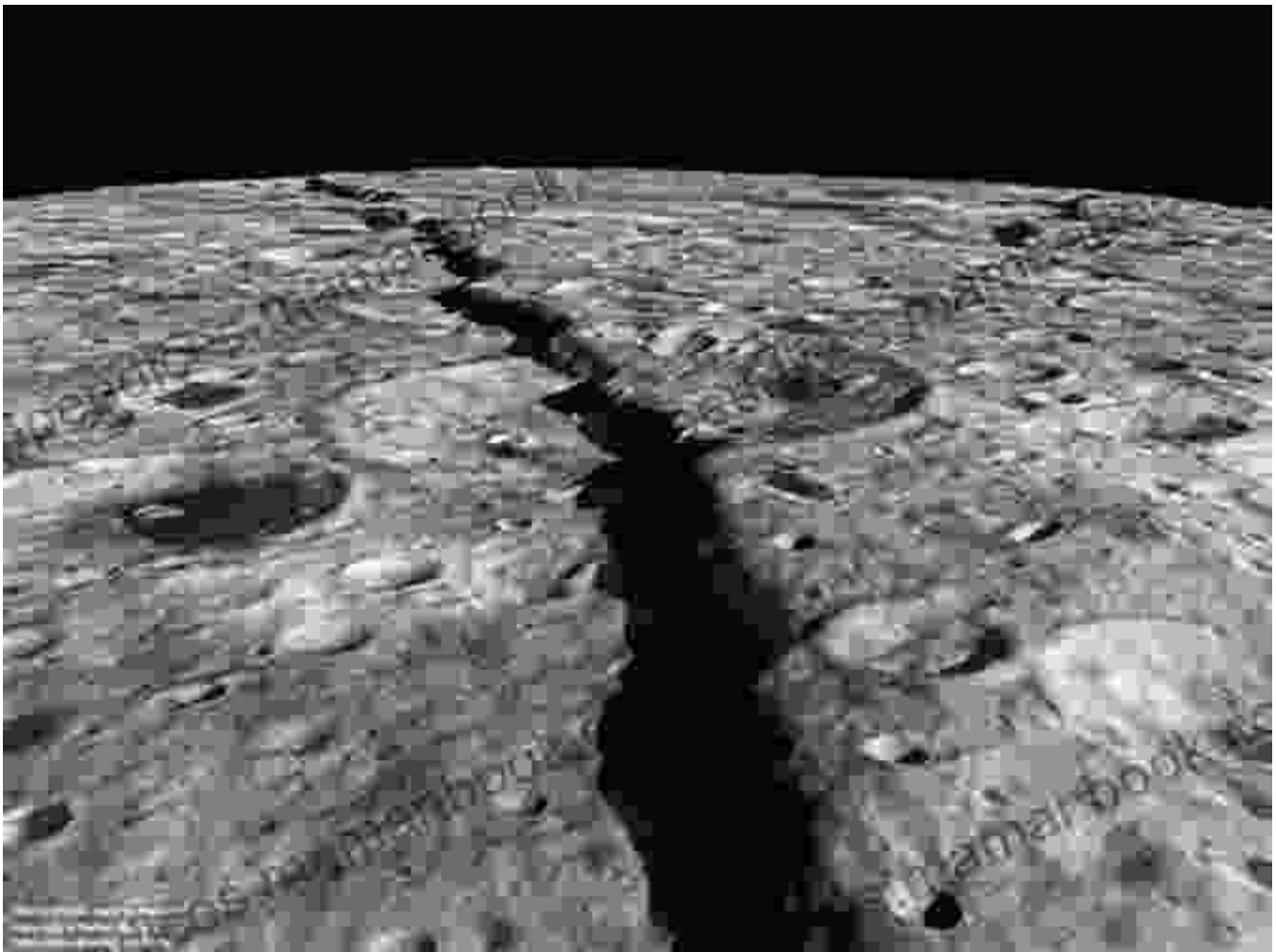
The sun's surface is a tumultuous region of flares, sunspots, and prominences, where magnetic forces unleash vast amounts of energy. These solar phenomena can have profound effects on Earth's magnetic field, causing auroras and disrupting communication systems.



## **Mercury: The Swift Messenger**

Mercury, the closest planet to the sun, is a small, rocky world with a heavily cratered surface. Its proximity to the sun exposes it to extreme temperatures, reaching up to 450 degrees Celsius during the day and plummeting to -180 degrees Celsius at night.

Mercury's lack of an atmosphere and magnetic field makes it susceptible to bombardment by the solar wind. This constant bombardment has carved out a thin, metallic core, giving Mercury the highest density of all the terrestrial planets.



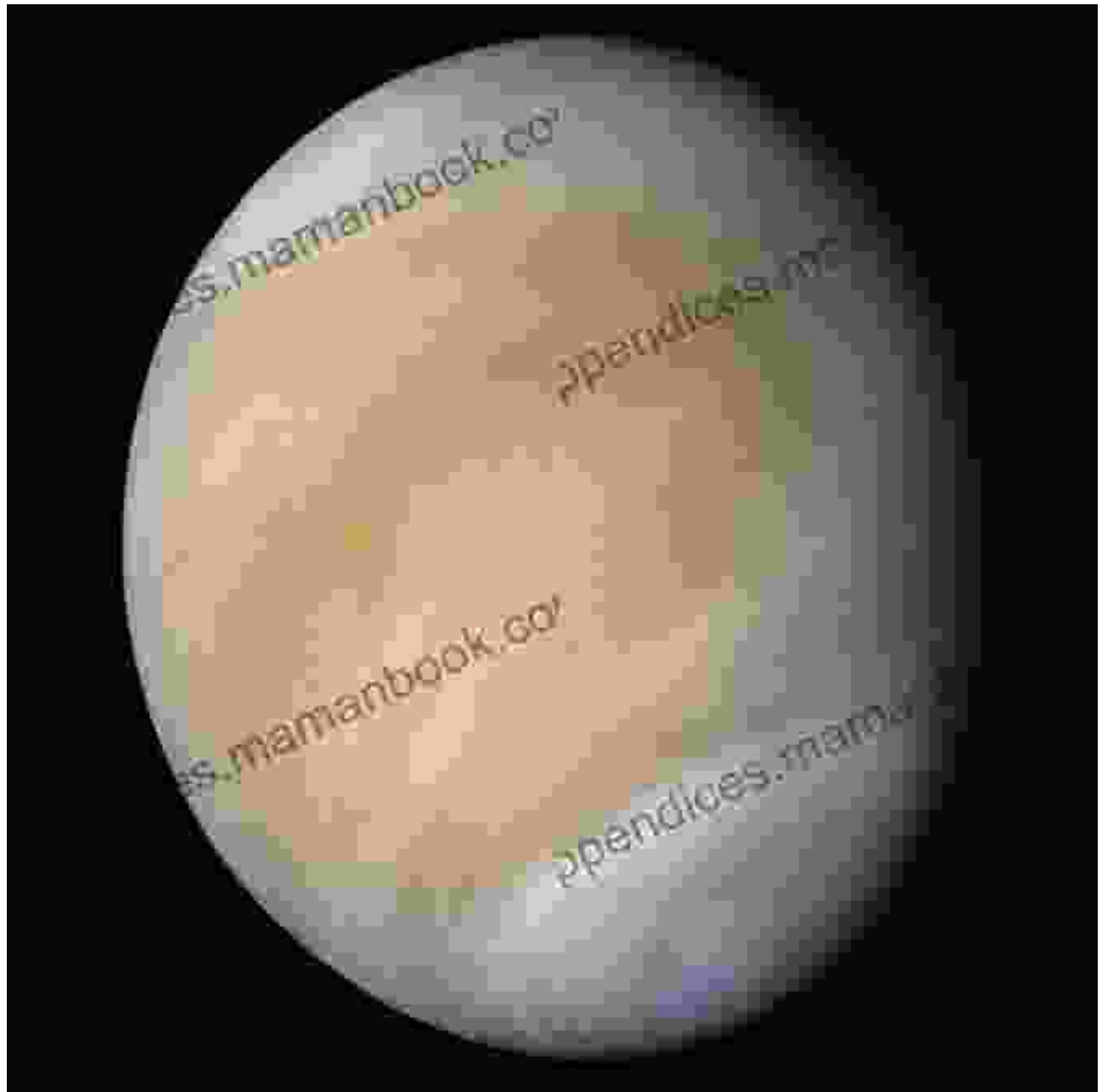
Mercury, the smallest and fastest-moving planet in our solar system.

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## **Venus: The Veiled Planet**

Venus, Earth's closest celestial neighbor, is a mysterious world shrouded in a dense, carbon dioxide atmosphere. This thick blanket traps heat, creating a runaway greenhouse effect that makes Venus the hottest planet in our solar system.

Venus's surface is largely unknown due to its impenetrable atmosphere. However, radar mapping has revealed a rugged landscape of mountains, volcanoes, and vast lava plains. The planet's slow rotation and lack of a magnetic field make it a unique and intriguing study.



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## **Earth: Our Home Planet**

Our home planet, Earth, is a vibrant and diverse world that supports a wide array of life. Its atmosphere, oceans, and continents provide the perfect

conditions for life to flourish.

Earth's unique features include its water cycle, which replenishes water supplies and supports ecosystems. The planet's climate is regulated by the interplay of the sun's energy, the atmosphere, and the oceans.



Earth, the third planet from the sun, is the only known planet in the universe that supports life.

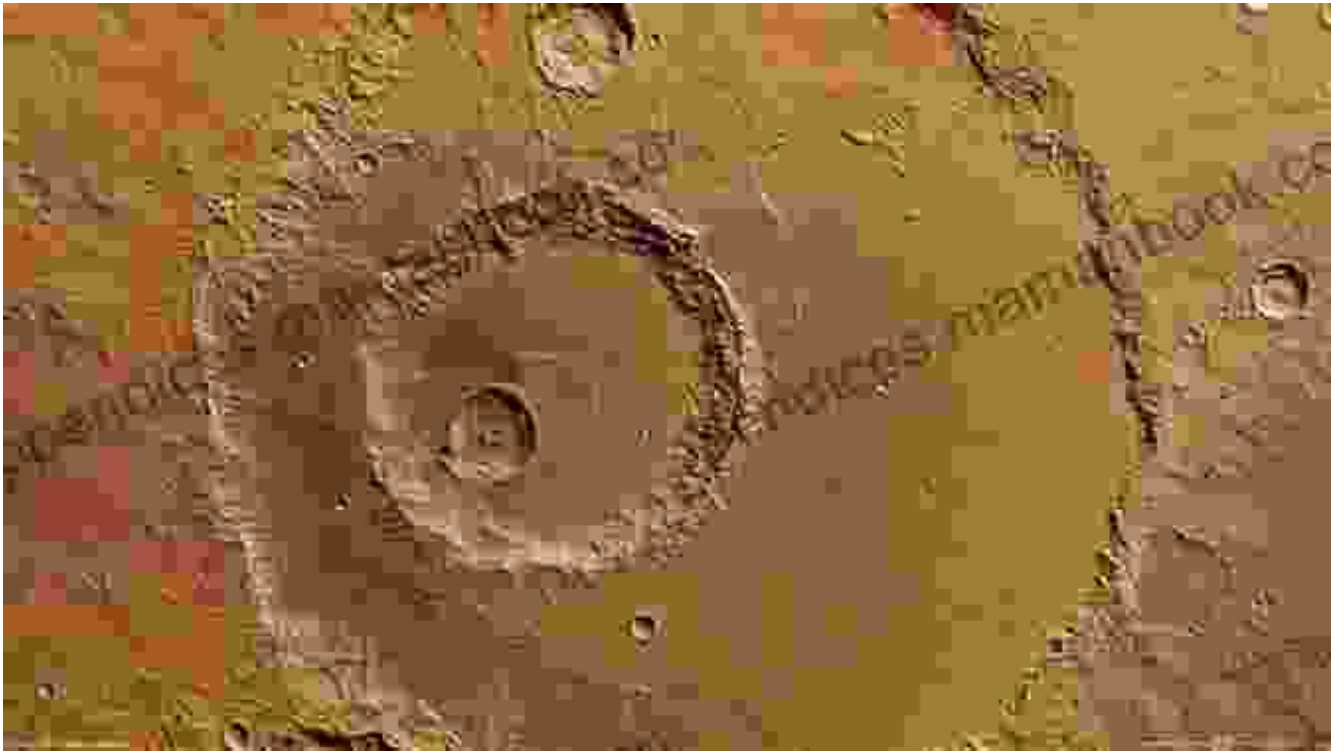
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### **Mars: The Red Planet**

Mars, the fourth planet from the sun, is known as the "Red Planet" due to its iron oxide-rich surface. Once thought to be a potential home for life,

Mars is now considered a cold, barren world with a thin atmosphere and a surface scarred by ancient craters and volcanoes.

However, recent discoveries suggest that Mars may have once been habitable, with liquid water flowing on its surface and a thicker atmosphere. The search for life on Mars remains an ongoing scientific pursuit.



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## **Jupiter: The Gas Giant**

Jupiter, the largest planet in our solar system, is a colossal ball of gas and liquid hydrogen and helium. Its immense size and gravity make it a dominating presence in the solar system.

Jupiter's atmosphere is a swirling tapestry of clouds, storms, and lightning bolts. The planet's Great Red Spot is a centuries-old storm larger than Earth that has defied all attempts to explain its formation.



Jupiter, the fifth planet from the sun, is the largest planet in our solar system.

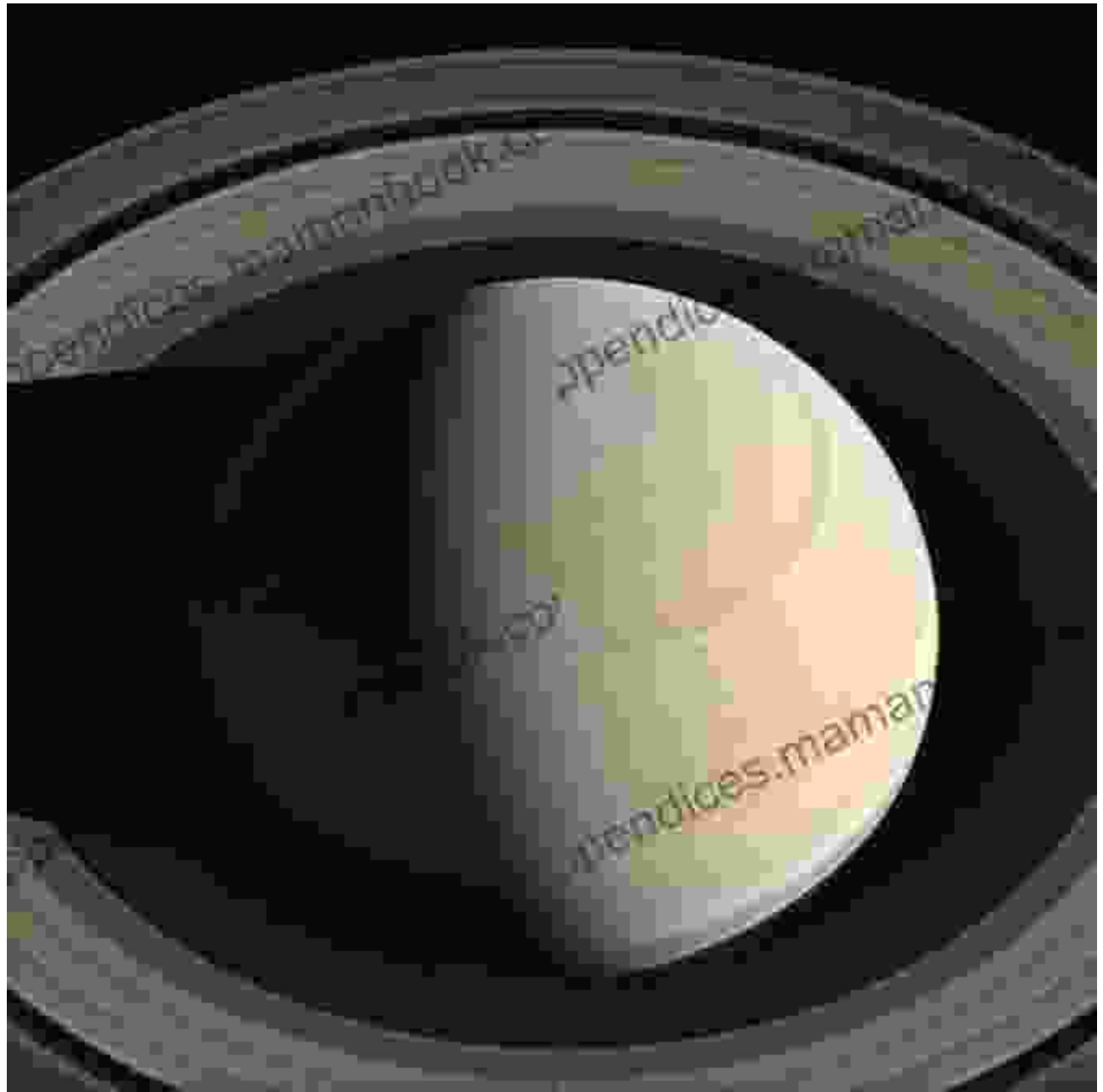
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### **Saturn: The Ringed Planet**

Saturn, the sixth planet from the sun, is renowned for its magnificent ring system. These icy rings are composed of countless particles ranging in size from tiny grains to large boulders.



Saturn's atmosphere is similar to Jupiter's, but its interior composition is more complex. The planet's magnetic field is one of the strongest in the solar system, generating auroras that are visible from the planet's poles.

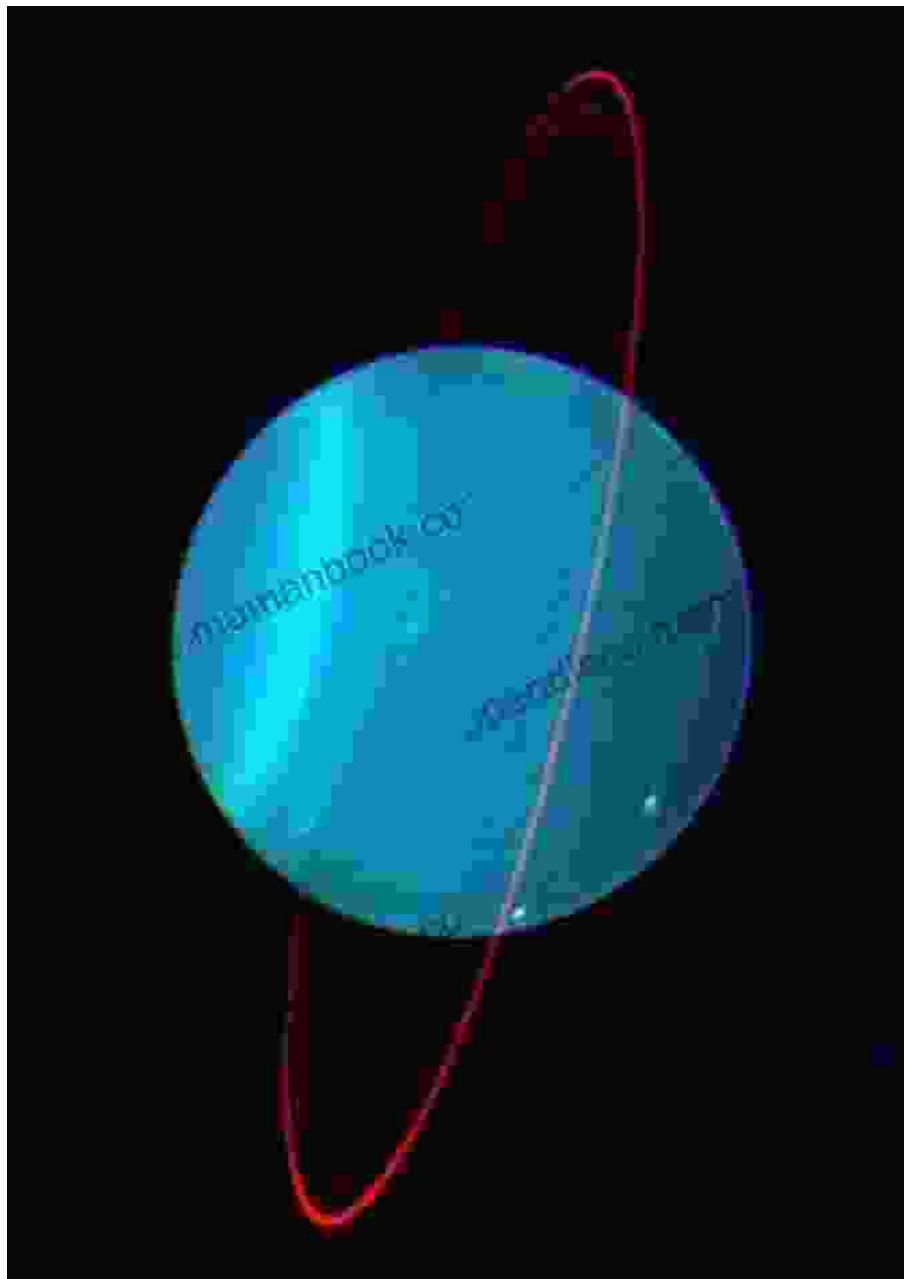


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**Uranus: The Tilted Planet**

Uranus, the seventh planet from the sun, is a peculiar world tilted on its side. This extreme tilt exposes the planet's poles to the sun for long periods of time, creating extreme temperature variations.

Uranus's atmosphere is composed mostly of hydrogen, helium, and methane. The planet's distinct blue-green coloration is attributed to the absorption of red light by methane molecules.



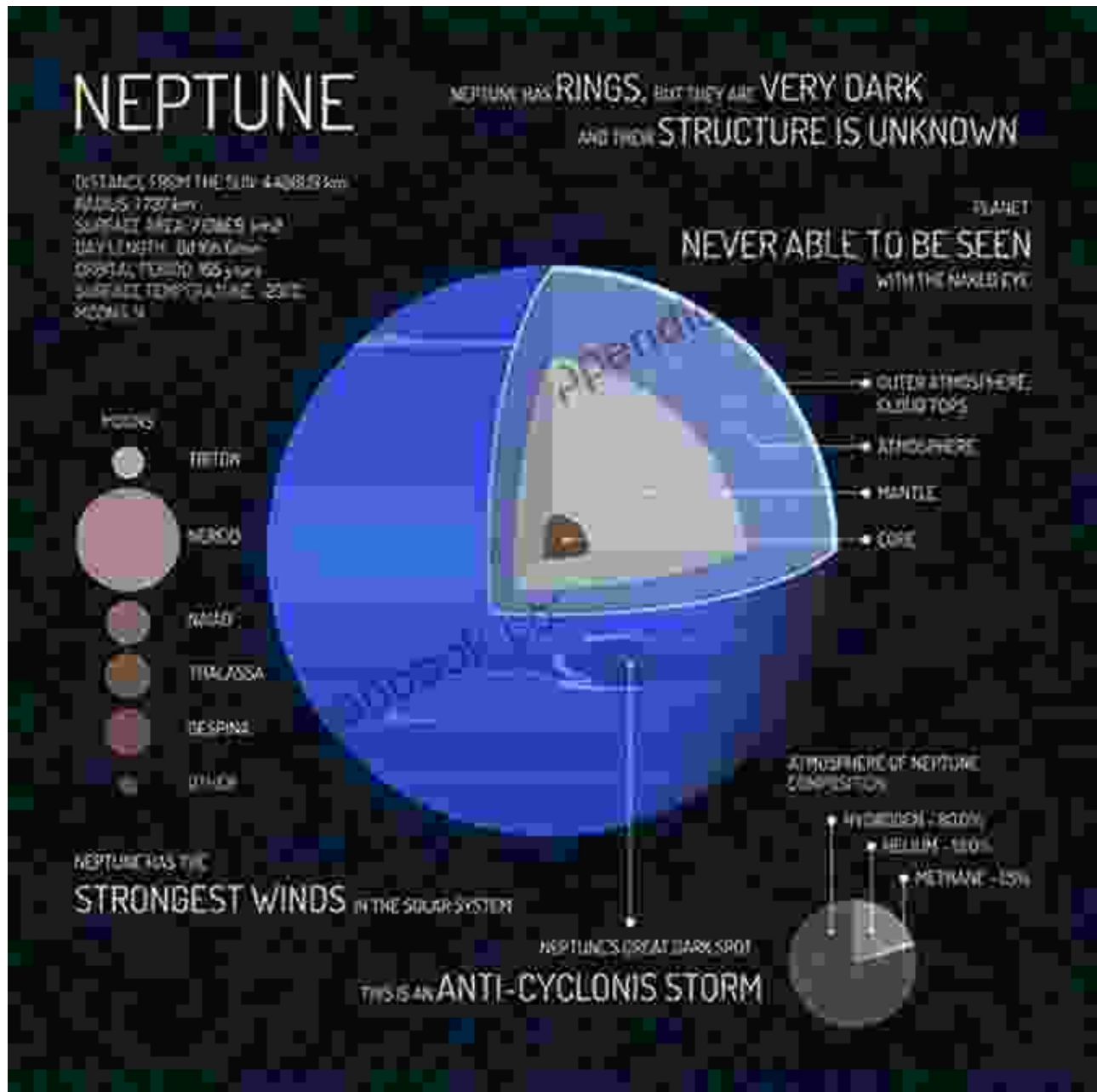
Uranus, the seventh planet from the sun, is known for its extreme tilt, which causes its poles to be exposed to the sun for long periods of time.

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## **Neptune: The Distant Giant**

Neptune, the eighth and farthest planet from the sun, is a cold, dark world with a faint blue atmosphere. The planet's immense distance from the sun makes it difficult to study, but recent missions have provided valuable insights.

Neptune's atmosphere is composed mostly of hydrogen, helium, and methane. The planet's most prominent feature is the Great Dark Spot, a gigantic storm that rivaled Jupiter's Great Red Spot in size and intensity.

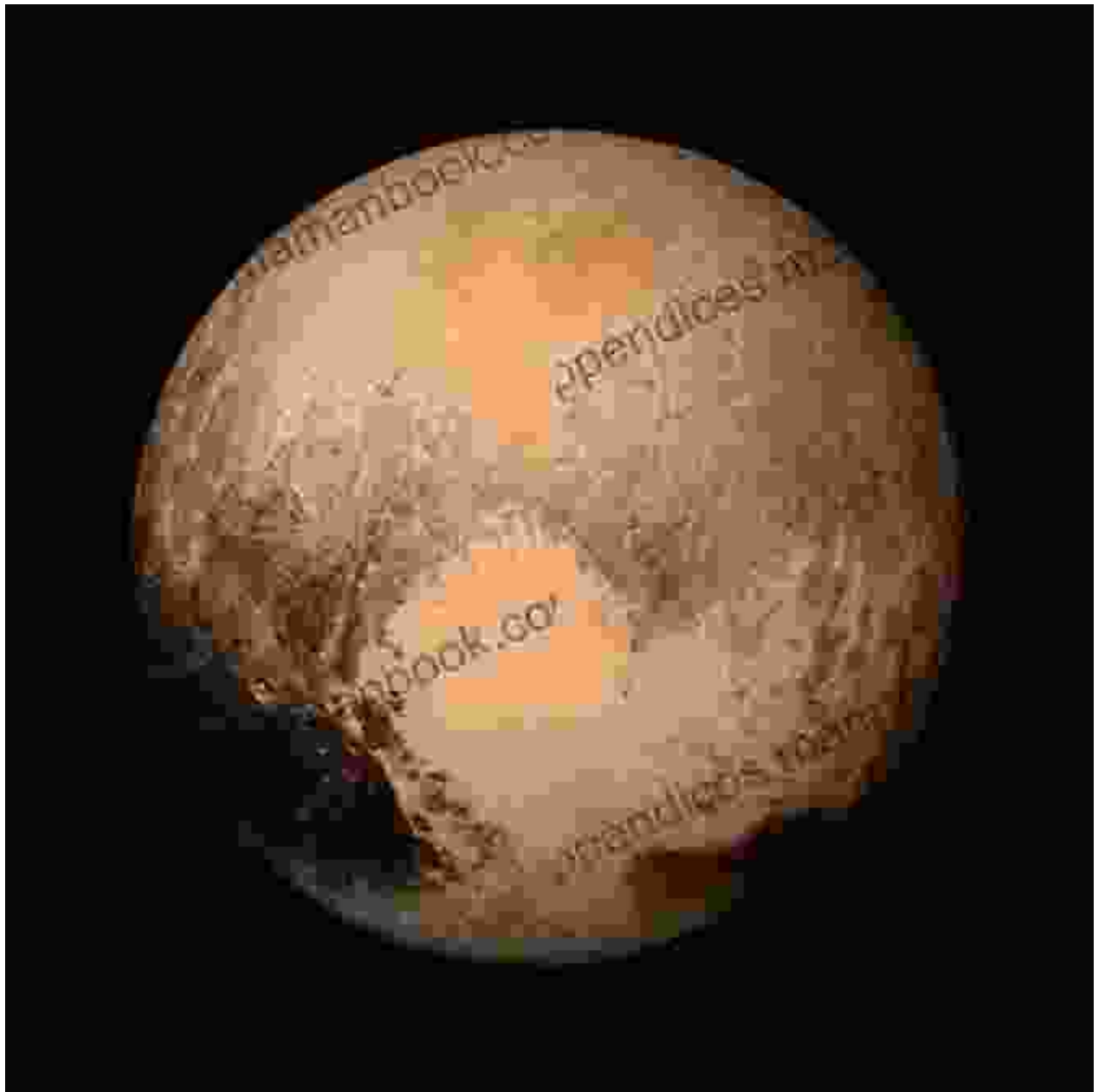


## Pluto: The Once and Future Planet

Pluto, once considered the ninth planet from the sun, was reclassified as a dwarf planet in 2006. This decision was based on the discovery of similar

objects in the outer solar system.

Pluto is a small, icy world located in the Kuiper Belt, a vast region of small bodies beyond Neptune. The planet's surface is covered in a frozen nitrogen ice and has a thin, nitrogen-rich atmosphere.

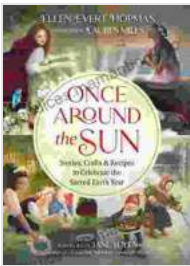


Pluto, once considered the ninth planet from the sun, is now classified as a dwarf planet.

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Our journey through the solar system has taken us from the brilliant radiance of the sun to the icy depths of Pluto. Along the way, we have encountered a diverse array of worlds, each with its own unique characteristics and scientific mysteries.

As we continue to explore our cosmic neighborhood, we will undoubtedly make even more fascinating discoveries. The solar system is a testament to the vastness and wonder of the universe, and it holds endless possibilities for future

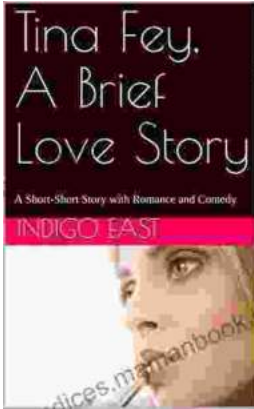


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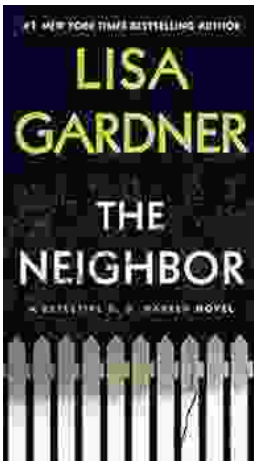
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