

Super English



Unit 1 - Lesson 2 - The Universe

Vocabulary



Universe - Vocabulary



atmosphere: (n) the layer of gases that surrounds a planet, such as Earth, and is held in place by the planet's gravity



Changes in the **atmosphere** can lead to different weather patterns on Earth.

Universe - Vocabulary



radiation: (n) energy from heat or light that travels in waves, which at high levels can be very harmful to your health



Sunscreen helps protect your skin from the sun's harmful **radiation**.

Universe - Vocabulary



rust: (n) a reddish-brown substance that forms on iron or steel when it reacts with water and oxygen over time



The old car had a lot of **rust** damage after being neglected for so long.

Universe - Vocabulary



support: (v) to give someone money or physical things that are needed to live; to encourage, comfort, help, etc.



Plants need sunlight and water to **support** their growth.

Let's Read!

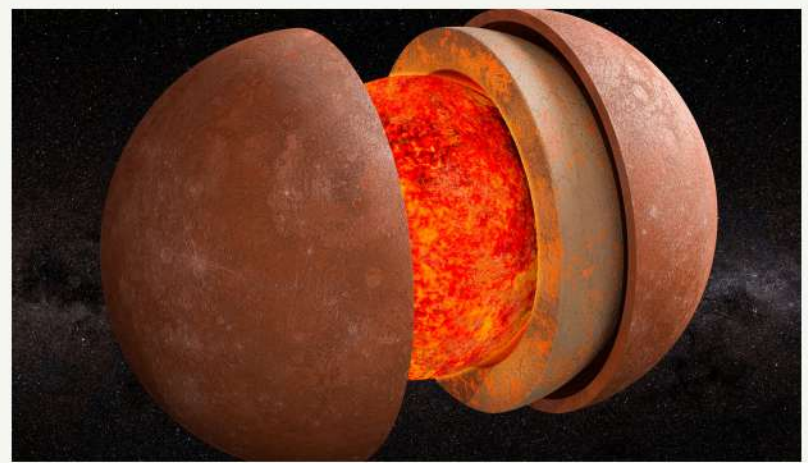


Exploring the Inner Planets: Mercury, Venus, Earth, and Mars



Welcome back to our journey through the Solar System! Today, we're diving into the inner planets, the four rocky worlds closest to the Sun: Mercury, Venus, Earth, and Mars. Let's explore what makes each of these planets unique and exciting!

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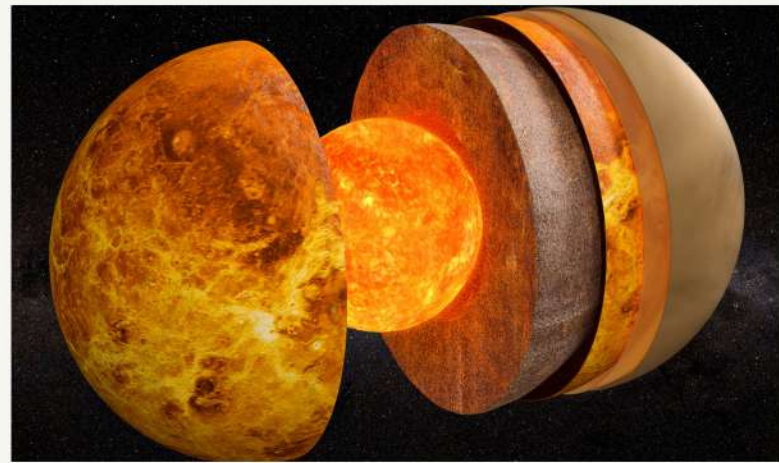


Mercury: The Swift Messenger
Mercury is the smallest and fastest planet, zipping around the Sun in just 88 days! Named after the speedy Roman messenger god, this tiny planet experiences wild temperature swings. During the day, it's scorching hot, up to 430°C (800°F), and at night, it's freezing cold, dropping to -180°C (-290°F). With its cratered surface, Mercury looks a lot like our Moon.

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Venus: Earth's Twin

Venus is often called Earth's twin because it's similar in size. But don't be fooled! Venus is a scorching hot planet with thick, toxic clouds of sulfuric acid. Its surface temperature is around 465°C (869°F) – hot enough to melt lead! The atmosphere is super dense, with a pressure 90 times greater than Earth's. Despite the heat, Venus has mountains, valleys, and even volcanoes.



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Earth: Our Unique Home

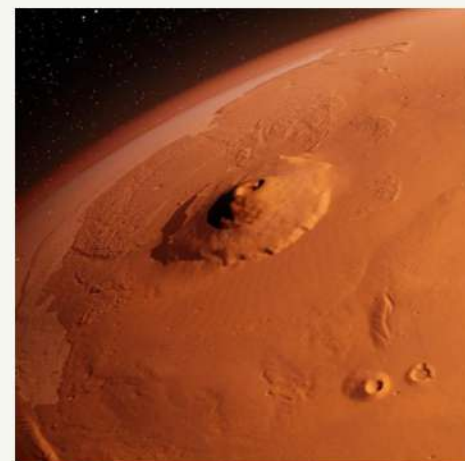
Earth is the third planet from the Sun and the only one known to support life. What makes Earth special? It has liquid water, an oxygen-rich atmosphere, and a climate that's just right for plants, animals, and humans. About 71% of Earth's surface is covered with water. Our atmosphere protects us from harmful solar radiation and helps regulate the climate. From lush forests and vast oceans to towering mountains and expansive deserts, Earth is a planet of incredible diversity and beauty.

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Mars: The Red Planet

Mars, the fourth planet from the Sun, is known as the Red Planet because of its reddish soil, which comes from iron oxide (rust). Mars is a cold desert world with a thin atmosphere made mostly of carbon dioxide. It has the largest volcano in the Solar System, Olympus Mons, which is about three times taller than Mount Everest! Mars also has a giant canyon, Valles Marineris, which is over 4,000 kilometers (2,500 miles) long.

Scientists are super excited about Mars because there's evidence that liquid water once flowed there, raising the possibility of past or present life.



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What Makes the Inner Planets Special? The inner planets are unique because they're solid and rocky, unlike the gas giants of the outer Solar System. Their surfaces are filled with mountains, valleys, craters, and volcanoes. While Mercury and Venus have extreme conditions, Earth is a haven for life, and Mars is a thrilling target for future exploration. Each inner planet has its own story and features that make it a fascinating part of our Solar System.

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Fun Facts and Future Missions

Did you know that Venus rotates in the opposite direction to most planets? Or that a year on Mercury is shorter than its day? These fun facts make learning about the inner planets even more exciting! And with future missions planned to explore Mars and even send humans there, who knows what amazing discoveries await?



Grammar



might / may / could + be

We can also use '**might be**,' '**may be**,' and '**could be**' to express possibilities or actions that could happen in the future

I might be flying to Chicago tonight.



He might be playing football later.

Let's Talk!



Dialogue - Universe



Logan: Hey Harper, did you see that latest update about Mars travel?

Harper: Yeah, I caught that! Imagine being one of the first to step on Mars. Total bucket list moment.

Logan: Seriously! It's like the ultimate adventure. But would you actually go if you had the chance?

Harper: 100%. It's a one-in-a-million opportunity. What about you?

Logan: I'm on board. Just think about launching into space and seeing Earth from afar.

Harper: Epic view, right? But the trip takes months. Think you could handle it?

Logan: Probably tough, but worth it. The idea of exploring a whole new planet is wild.

Harper: Yeah, crazy! And setting up the first human colony? We'd be part of history.

Dialogue - Universe



Logan: Exactly! Like the pioneers of a new world. We'd learn so much!

Harper: That's the dream. Plus, the tech they're developing for this is mind-blowing.

Logan: Yeah, living in space habitats, growing food on Mars... it's like sci-fi becoming reality.

Harper: We should totally start prepping, just in case. Mars training camp?

Logan: Count me in! We better start working on our fitness and maybe some science skills.

Harper: Let's do it. Here's hoping we get to see Mars up close one day!

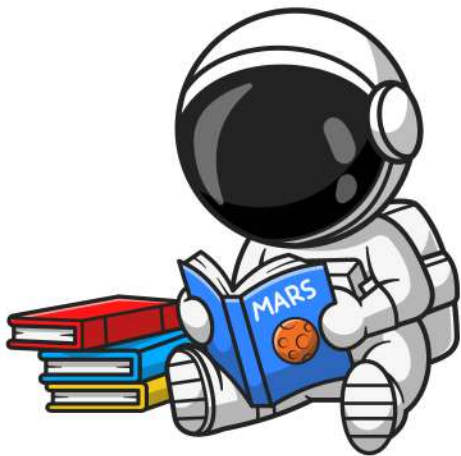
Logan: From your lips to NASA's ears. Catch you later, future Martian!

Harper: Later, Logan! Dream big, right?

Space words

Practice reading these 'space' words!

Kuiper
Heliosphere
Oort
Protostar
Photosphere
Planetary



Perihelion
Aphelion
Magnetosphere
Equinox
Solstice
Sidereal

Super English

See you
Next time!

