



The Heavens Declare the Glory of God...
The Law of the Lord is Perfect, Restoring the Soul
Psalm 19

The Universe
IfMyPeople.us

Slide 2

The Universe
Putting Back the Awe of God's Creation
A Six-Part Series

1. Building Blocks
2. Goldilocks
3. To the Moon!
4. **Our Neighborhood**
5. Stars
6. Galaxies

Building Blocks

Why does ice float? Why does it matter? Why don't atoms (or the universe itself) scatter instead of forming marvelous structures that support life? The answers to these and other questions leaves little doubt they were designed by a intelligent, loving being to make a universe of order, design, and beauty.

Goldilocks

Not too hot, not too cold, this planet is just right. A LOT of things need to be just so to support life on earth, from heat, gravity, radiation and a raft of other things. Demonstrating Jesus' incredible intelligence and design makes short work of conventional science "just so" life-on-earth-by-accident stories.

To the Moon

Earth's moon is the source of light, bringer of tides & eclipses (and romance). Unlike other planets' moons, ours is unique in many ways. Ways that make life on earth possible

Our Neighborhood

Our tiny planet has a host of neighbors, big & small that provide beauty, awe, wonder, and protection!. See how God wisely placed these sentinels near our world and some fun facts about them.

Stars

The nuclear source of power and light for earth. Stars fill our sky at night and demonstrate only a God Wonders could make such a marvelous creation. Join us as learn how our very unique sun differs from most other stars created by God to bring us safe stable life.

Galaxies

Vast, almost unimaginably huge, these collections of strs and dust and other wonders pepper our vast, God-made universe with beauty, awe, and wonder.

Slide 3

Be Like Newton:

- Come With a Curious Mind
- “Have You Ever Asked Yourself...”
- Aim: The Glory of God Not the Spotlight of Foolishness

Curious Mind: Don't Take things for granted.

Have You Ever: Be child like in asking how and why etc.

Aim: Great are the works of the LORD; They are studied by all who delight in them. — Psalm 111:2 Tonight (and this series) is for worship.

Slide 4

Last Time: Earth's Glorious Moon

- Purposes
 - Earth
 - On Earth
 - In Orbit
 - People
 - Utility
 - Beauty

Slide 5

The Big Idea

Display the Wisdom, Awe, and Majesty of the Solar System's Creator

Slide 6

How Did God Make the Solar System?

By the word of the LORD the heavens were made, And by the breath of His mouth all their host.

For He spoke, and it was done; He commanded, and it stood fast.

– Psalm 33:6,9

Slide 7

Our Glorious Neighborhood

What's a Planet?
Marvelous Mars
Flotsam & Jetsam
The Cleanup
Put a Ring On It
Outer Limits

Slide 8

What's a Planet?

- Orbit a Star
- Large Enough For to Make it Round
- Large Enough to Clear Away Smaller Objects Near It



In 2006, the International Astronomical Union (IAU) - a group of astronomers that names objects in our solar system - agreed on their own definition of the word "planet." This new definition changed caused Pluto's famous "demotion" to a dwarf planet.

The definition of a planet adopted by the IAU says a planet must do three things:

- It must orbit a star (in our cosmic neighborhood, the Sun).

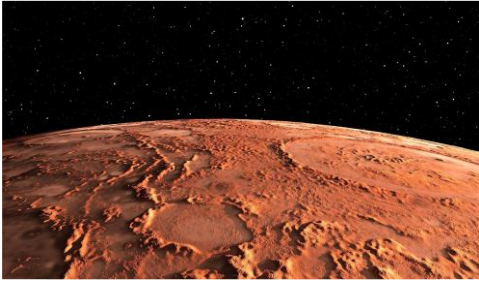
- It must be big enough to have enough gravity to force it into a spherical shape.
- It must be big enough that its gravity has cleared away any other objects of a similar size near its orbit around the Sun.

<https://science.nasa.gov/solar-system/planets/what-is-a-planet/>

Slide 9

Marvelous Mars

- At a Glance
- Canals



MARS is the famous “red planet”, and is not surprisingly named after the Roman god of war. The fourth planet from the sun, it can approach the third planet, Earth, as closely as 54.5 million kilometres (33.9 million miles). Of course, this is still a huge distance, so it’s only recently that a number of probes have been sent there, but this is still easier than most other planets. It also makes it one of the brightest objects in the night sky, surpassed only by the Moon, Venus and sometimes Jupiter.

Another factor makes Martian probes even more attractive to secular scientists. While Venus can approach closer to earth—42 million km (26 million miles)—it is a hellhole, with temperatures hot enough to melt lead, and an atmosphere 90 times denser than ours that’s mostly carbon dioxide and clouds made of sulfuric acid. By contrast, many hope that Mars is hospitable to life.

These hopes have not been realized, and are not likely to be. Mars is a dry, frigid world—yet recent discoveries point to huge floods in the past.

The concept of Martian canals originated with Italian astronomer Giovanni Schiaparelli during the 1877 opposition of Mars, when he reported seeing about 100 linear features on the planet's surface, which he called *canali*, meaning "channels" in Italian. This term was mistranslated into English as "canals," implying artificial construction, which fueled speculation about intelligent life on Mars. ¹

¹ <https://creation.com/en/articles/mars-red-planet>

Slide 10

Invasion From Mars!

Orson Welles - War Of The Worlds - Radio Broadcast 1938 - Complete Broadcast. The War of the Worlds was an episode of the American radio drama anthology series Mercury Theatre on the Air. It was performed as a Halloween episode of the series on October 30, 1938 and aired over the Columbia Broadcasting System radio network.

Directed and narrated by Orson Welles, the episode was an adaptation of H. G. Wells' novel The War of the Worlds. The first two thirds of the 60-minute broadcast were presented as a series of simulated "news bulletins", which suggested to many listeners that an actual alien invasion by Martians was currently in progress.

Compounding the issue was the fact that the Mercury Theatre on the Air was a 'sustaining show' (it ran without commercial breaks), thus adding to the program's quality of realism.

Although there were sensationalist accounts in the press about a supposed panic in response to the broadcast, the precise extent of listener response has been debated. In the days following the adaptation, however, there was widespread outrage. The program's news-bulletin format was decried as cruelly deceptive by some newspapers and public figures, leading to an outcry against the perpetrators of the broadcast, but the episode secured Orson Welles' fame.

Slide 11

Asteroids

- Size
- Composition
 - Rocky
 - Metallic



Sometime called minor planets

Range in size from car length to large city –

Mostly found between Mars and Jupiter –

Two basic compositions –

Rocky – The vast majority are stony meteorites, which consist of silicate minerals like earth rocks.

Metallic – Iron, predominantly iron-nickel metal alloys, like the earth's core.

<https://science.nasa.gov/solar-system/10-things-whats-that-space-rock/#h-1-asteroids>

<https://answersingenesis.org/astronomy/misunderstood-messengers-space/>

Asteroids

- Location
 - Mostly Between Mars & Jupiter
 - NEO's
- Origin



The Asteroid is NASA's Galileo spacecraft captured this view in August 1993, minutes before its closest approach to asteroid 243 Ida and its tiny moon, Dactyl. Kinda looks like a dreidel. ¹

Range in size from car length to large city

Mostly found between Mars and Jupiter.

Trojan asteroids are asteroids that orbit in the gravitational influence of Jupiter (called Lagrange points, L4 and L5 to be precise) and shadow Jupiter.

- Two basic compositions –
 - Rocky – The vast majority are stony meteorites, which consist of silicate minerals like earth rocks.
 - Metallic – Iron, predominantly iron-nickel metal alloys, like the earth's core. ²

NEO's – Near Earth Objects, asteroids with an oval

Origin – Psalm 33:6,9 is how. Dr. Anthony Snelling offers this commentary:

“These messengers from space remind us that life is fragile. God warns that final judgment is coming, including falling stars, and mankind can't do anything to stop it (Isaiah 34:4; Matthew 24:29; Revelation 6:13). ³

¹ <https://science.nasa.gov/solar-system/10-things-whats-that-space-rock/#h-1-asteroids>

³ <https://www.icr.org/article/solar-system-asteroids-comets>

³ <https://answersingenesis.org/astronomy/misunderstood-messengers-space/>



1,100 earths could fit in a hollow shell of Jupiter. The “King of Planets” named for the Roman king of the gods, spins once in just under 10 hours. It sits 484 million miles from the sun, and takes about 12 years to go around it. It is made mostly of hydrogen. ¹

Commenting on the GRS, Jason Lisle tells us

“At least 349 years old, this magnificent storm was first discovered by Robert Hooke in 1664. Before this time, telescopes were not optically sufficient to discern such features, so the Red Spot may actually be much older.” ²

Unlike earth which has water, the Red Spot, (which appears orange in the telescope or binoculars) Hydrogen, methane and other gases brew up from a hotter interior to be dispersed in Jupiter’s upper atmosphere as not just a hurricane, but a hypercane not unlike the hypercanes of earth after the Great Flood! ³

Europa, Ganymede, Callisto of Jupiter and 3 other moons are thought, not proven to have liquid water, and hence hold particular interest to those who believe life exists somewhere out there. ⁴ These 4 were first discovered by Galileo in 1610 and can be seen with field glasses or small telescope.

Keep in mind 1) liquid water is a pre-requisite for life as we know it, BUT it’s existence would severely hamper its formation 2. Water in some form is what God made the universe from Gen 1:2-7

“The earth was formless and void, and darkness was over the surface of the deep, and the Spirit of God was moving over the surface of the waters. Then God said, “Let there be light”; and there was light. God saw that the light was good; and God separated the light from the darkness. God called the light day, and the darkness He called night. And there was evening and there was morning, one day. Then God said, “Let there be an expanse in the midst of the waters, and let it separate the waters from the waters.” God made the expanse and separated the waters which were below the expanse from the waters which were above the expanse; and it was so.” ⁵

¹ <https://science.nasa.gov/jupiter/jupiter-facts/>

² <https://www.icr.org/article/solar-system-Jupiter>

³ <https://www.icr.org/earth-sun/>

<https://www.bing.com/search?q=do%20any%20solar%20system%20moons%20have%20liquid%20water%3F&qs=n&form=QBRE&sp=-1&ghc=1&lq=0&pq=do%20any%20solar%20system%20moons%20have%20liquid%20water%3F&sc=12-44&sk=&cvid=F085DF0EC2C04ED9AC0C0CF9E728BCCA>

⁵ <https://www.icr.org/article/subsurface-oceans-two-uranian-moons>

Slide 14

Jumpin' Jupiter or the Cleanup Crew

- Protects Earth
 - Outside
 - Inside
- Gravitational Stability
- 80 Mini-Moons

The great protector Jupiter is sometimes called. According to Dr. Jonathan Corrado:

“One of Jupiter’s most important jobs is to act as a cosmic shield. Because of its massive size and strong gravity, Jupiter can pull in or deflect many asteroids and comets that might otherwise collide with Earth. Imagine Jupiter as a giant vacuum cleaner sucking up debris that could cause catastrophic effects on our planet. Without Jupiter, the frequency and magnitude of impacts on Earth would be much higher, potentially making our planet a much more hazardous place to live.

Jupiter also plays a crucial role in influencing the asteroid belt located between Mars and Jupiter. This region contains numerous rocky bodies that could potentially be a danger to Earth. Jupiter’s strong gravitational field helps to keep many of these asteroids in their place, preventing them from drifting into the inner solar system where they could pose a threat to Earth. By maintaining the stability of the asteroid belt, Jupiter reduces the chances of large asteroid impacts that could be devastating to life on our planet.

Jupiter’s gravity doesn’t just protect us from space debris; it also helps keep the solar system stable. The giant planet’s gravitational pull affects the orbits of other planets, including Earth’s. This gravitational influence helps maintain the relatively stable orbits that we observe, which is essential for a stable climate on our planet. Accordingly, a stable climate means Earth can support diverse ecosystems and, thus, life.”¹

Jupiter has at least 159 moons, the largest discovered by Galileo. As telescopes gave us greater resolving power, more were added later. Of these 80 have a radius of 10 kilometers or less. ¹ Being so close to the asteroid belt, it isn’t difficult to think many or all were captured in Jupiter’s gravitational sway. This “cleanup” effect was dramatically demonstrated in 1994.

¹ <https://www.icr.org/article/jupiter-might-guardian-of-earth/>

Slide 15

Jumpin' Jupiter or the Cleanup Crew

Hubble recorded comet Shoemaker-Levy 9 in 1194 leaving huge impact sites on Jupiter. Never seen before, in orbit around Jupiter believed to be captured by Jupiter in the 1920's. It was a week-long event

Slide 16

Saturn – Put a Ring On It

- Moons Moons Moons
- Beautiful Rings
 - Defy Deep Time
 - Glorify Its Creator



Saturn of the “gas giants” (Jupiter, Saturn, Uranus, & Neptune) wears the crown of most moons in the solar system; 274 known, with many stray dogs far from the giant orb. It's largest moon, Titan, has its own atmosphere. They range in size from S/2009 S1 coming in at under two thousand feet to Titanic Titan, over 32 thousand miles! ¹

Although some astronomers account for long age in Saturn's rings with freshly-formed “gost rings, they admit:

“Planetary scientists think that electrostatic forces generated from this interaction levitate dust or ice above the ring to form the spokes, though after several decades no theory perfectly predicts the spokes. Continued Hubble observations may eventually help solve the mystery.” ²

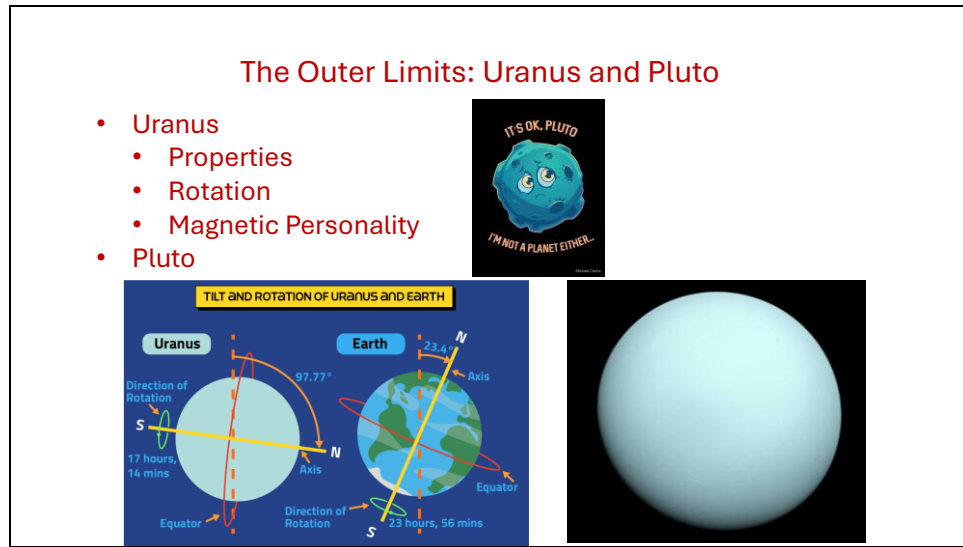
Dr. Brian Thomas of ICR sums up:

“Though they may mystify evolutionary adherents, “The Age Problems” that Cassini's photographs and other data are uncovering are not problems for creation thinking. The youthful features of Saturn and its rings are not puzzling at all, considering they were hung in the heavens about 6,000 years ago by the direct action of a Creator.” ³

¹ <https://www.britannica.com/place/moons-of-Saturn-2237282>

² <https://science.nasa.gov/asset/hubble/saturn-6/>

³ <https://www.icr.org/article/planetary-quandaries-solved-saturn>



Dr. Jason Lisle comments on Uranus:

“Uranus orbits the sun at an average distance of 1.79 billion miles—over 19 times farther out than Earth. At such a distance, Uranus takes 84 years to orbit the sun. The planet is four times the diameter of Earth. Its outer composition is similar to that of Jupiter and Saturn—mostly hydrogen and helium gas, with a small percentage of methane. Based on its density, the interior of Uranus is thought to be composed of various ices such as water, ammonia, and methane. For this reason, Uranus is sometimes referred to as an *ice giant* rather than a gas giant like Jupiter or Saturn.”¹

Unlike other planets, Uranus spins sideways to the plane it orbits¹

In 1984 D. Russel Humphreys Uranus would have a detectable magnetic field. This idea ran contrary to conventional science in that magnetic fields require a relatively hot inner core. A gas giant supposedly 4.5 billion years old would be a methane sno-cone.

But his prediction was shown to be true by the Voyager 2 spacecraft in January of 1986.² Despite rescue devices such as solar wind blowing off atmospheric plasma producing a magnetic field called plasmoids, this remains theory.¹

¹ <https://www.icr.org/article/solar-system-Uranus>

² <https://www.nasa.gov/history/35-years-ago-voyager-2-explores-uranus/>

Slide 19 & 20

Why Did God Make the Solar System?

By the word of the LORD the heavens were made, And by the breath of His mouth all their host.

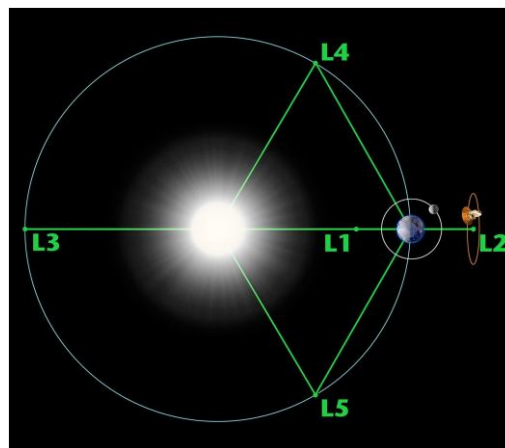
Let all the earth fear the LORD; Let all the inhabitants of the world stand in awe of Him.

For He spoke, and it was done; He commanded, and it stood fast.

– Psalm 33:6,8,9

Slide 22

La Grange Points



“Lagrange Points are positions in space where the gravitational forces of a two body system like the Sun and the Earth produce enhanced regions of attraction and repulsion. These can be used by spacecraft to reduce fuel consumption needed to remain in position.

Lagrange points are named in honor of Italian-French mathematician Joseph-Louis Lagrange.

Of the five Lagrange points, three are unstable and two are stable. The unstable Lagrange points - labeled L1, L2 and L3 - lie along the line connecting the two large masses. The stable Lagrange points - labeled L4 and L5 - form the apex of two equilateral triangles that have the large masses at their vertices. L4 leads the orbit of earth and L5 follows.”

James Webb is in a “halo orbit around L2, and Roman Space Telescope is supposed to be as well.

<https://science.nasa.gov/resource/what-is-a-lagrange-point/>

