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The solar system planets sizes in order

If you are interested in planets, the good news is there is a lot of diversity to choose from in our own solar system. From saturn's ringed beauty, to Jupiter's massive carcass, to the temperature of lead melting on Venus, every planet in our solar system is unique - with its own environment and its own history to tell the story of our solar system. What is also surprising is the difference in the size of the planets. While people think of the Earth as a big planet, it is actually eclipsed by massive gas giants lurking on the outer edges of our solar system. This article explores the planets in order of size, with a bit of context about how they got this way. A short history of the solar system should change according to new evidence. Today, scientists believe that the solar system began with a rotating gas and dust cloud. The gravitational pull at its center eventually collapsed to form the Sun. Some theories say that the energy of the young Sun began to repel lighter gas particles, while larger, more particulate matter, such as dust, remained closer. The artist's idea of the solar system in formation. Photo: NASA/FUSE/Lynette Cook For millions and millions of years, gas and dust particles have attracted each other with their reciprocal gravity and started to combine or crash. As larger matter balls formed, they swept the smaller particles away and eventually cleared their orbits. This led to the birth of the Earth and the other eight planets in our solar system. Since most of the gas is found in the outer parts of the system, this may explain why there are gas giants, although this presumption may not be true for other solar systems found in the universe. Until the 1990s, scientists knew only about the planets in our solar system, and at that time recognized that there were nine planets. However, as the telescope's technology improved, two things happened. Scientists have discovered exoplanets, or planets that are outside our solar system. It started by finding massive planets many times larger than Jupiter and then eventually finding planets that are rocky - even a few that are close to the size of the Earth itself. Another change was the finding of worlds similar to Pluto, which was then considered the furthest planet systems far away in our solar system. Astronomers initially began to treat these new worlds as planets, but as more information became available, the International Astronomical Union held a meeting to better clarify the definition. Hubble is an image of Pluto and some of its moons, Charon, Nix and Hydra. Hydra. Photo: NASA, ESA, H. Weaver (JHU/APL), A. Stern (SwRI) and HST Pluto Companion Search Team The result was a rethink of Pluto and worlds like it as a dwarf planet. This is the current definition of the planet IAU: The celestial body, which (a) is in orbit around the Sun, (b) has enough mass for its self-gravity to overcome the body's rigid forces, so that it takes a hydrostatic equilibrium (almost round) shape, and (c) cleared the surroundings around its orbit. Size eight planets: According to NASA, this is a supposed radius of eight planets in our solar system, in order of size. We have also included the size of the radii relative to the Earth to help you present them better. Jupiter (69,911 km / 43,441 miles) - 1.120% the size of Saturn's Earth (58,232 km / 36,184 miles) - 945% The size of Earth Uranus (25,362 km / 15,759 miles) - 400% the size of the Earth Neptune (24,622 km / 15,299 miles) - 388% Earth size (6,371 km / 3,959 miles) Venus (6,052 km / 3,761 miles) - 95% the size of The Earth Mars (3,390 km / 2,460 miles) - 53% the size of the land of Mercury (2,440 km / 1,516 miles) - 38% the size of the Earth's eight planets and dwarf planet in our solar system, roughly in scale. Pluto is a dwarf planet in the far right direction. On the left - The Sun. Planets, from left, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Credit: The Lunar and Planetary Institute of Jupiter is a behemoth of the solar system and is believed to be responsible for influencing the path of small objects that drift its massive mass. Sometimes it sends comets or asteroids into the inner solar system, and sometimes distracts them. Saturn, best known for its rings, also contains dozens of moons - including Titan, which has its own atmosphere. It is joined in the outer solar system by Uranus and Neptune, which have atmospheres of hydrogen, helium and methane. Uranus also rotates in front of other planets in the solar system. The inner planets include Venus (once thought to be Earth's twin, at least until its hot surface was discovered); Mars (a planet where liquid water could flow in the past); Mercury (which, despite its proximity to the Sun, has ice at the poles) and Earth, the only planet known so far to have life. To learn more about the solar system, check out these resources: Planets (NASA) Solar System (USGS) Planet Study (National Museum of Aviation and Space) Windows to the Universe (National Association of Earth Science Teachers) Solar System (National Geographic, requires free registration) Planets in our solar system are unique for various reasons. When it comes to their measurable size in diameter, planets vary greatly. For example, the diameter of the Earth is about 11 times the diameter of Jupiter. Mercury, on the other hand, is 2.6 times smaller in diameter than Earth. Below you list of the planet's average diameters from the largest to the smallest. We have included Pluto as an additional reference point for more information. 1. Jupiter is the largest planet in the solar system at 139,822 kilometers in diameter. This means that the diameter of Jupiter is more than 28.5 times greater than that of the smallest planet Mercury. 2. The diameter of Saturn is 116,464 km. This makes Saturn more than 9 times larger in diameter than Earth. This number does not include the actual rings of the planet, as they are considered a separate entity. 3. Uranus ranks third on the list with a maximum diameter of 50,724 km, making the planet almost four times the diameter of Earth and more than 10 times the diameter of Mercury. 4. Neptune, often described as the twin planet of Uranus because of its many similar characteristics, is also very close in size to Uranus. Neptune has a diameter of 49,248 km, making Uranus only 1.3 times the diameter. 5. Our planet Earth is the fifth largest of the eight planets and measures at 12,756 km in diameter. This means that the diameter of the Earth is about 2.6 times the diameter of the smallest planet Mercury. Another size comparison puts the Earth 3.67 times the diameter of the moon. 6. The twin planet of the Earth Venus is only slightly smaller than the Earth with a diameter of 12,104 km. Venus also has a similar gravitational pull of 8.87 m/s², which is 9.81 m/s² of the Earth. 7. The diameter of the red planet Mars is only 6,780 km. This makes it 20.5 times smaller in diameter than Jupiter. Mars is 53% of the diameter of planet Earth, but has only about 38% of the surface area of our planet. 8. Mercury, the smallest planet, has a diameter of 4780 km. This makes Jupiter, the largest planet, more than 28.5 times larger in diameter than Mercury. 9. The diameter of Pluto, which is currently designated as a dwarf planet, is 2,400 km. This means that the diameter of Earth is more than 59 times smaller than that of a massive Jupiter. Mercury Solar System - 1516mi (2,440km) radius; About 1/3 of the size of the Earth Venus - 3760mi (6,052km) radius; only slightly smaller than Earth - 3,959mi (6,371km) radius of Mars - 2,106mi (3,390km) radius; about half the size of Jupiter's Earth - 43,441mi (69,911 km) radius; Saturn's 11x Earth size - 36,184mi (58,232km) radius; 9 times the number of terrestrial Uranus - a radius of 15,759mi (25,362 km); 4x Earth size Neptune - 15,299mi (24,622km) radius; only slightly smaller than Uranus This illustration shows the approximate dimensions of the planets relative to each other. Externally from the Sun planets Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune, followed by the dwarf planet Pluto. Jupiter's diameter is about 11 times the diameter of the Earth, and the diameter of the Sun is about 10 times the diameter of Jupiter. Pluto's diameter is just under one-fifth of Earth's. The planets are not shown on the distance from the Sun. The planets are ok from the Sun Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune and finally the dwarf planet Pluto. Most people have at least heard about our solar system and the planets in it. Check out this guide to learn all about planets, their size, and their order in the solar system. Without the clean-up of the early solar system, the Earth would have been marked by meteoric collisions. We will suffer from collisions with asteroids every day. CNN studios would probably be a giant crater if it weren't for Jupiter. - Michio Kaku/Nashi of the Solar Planet System in Order This solar system revolves around the Sun, hence the name of the solar system. In our system we have 4 terrestrial planets, 4 gas giants and a mysterious 9th planet. Let's look at them, but first, here's a rundown of each planet in order of size and distance from the Sun. Planets In Order Of Size: Planet Diameter (km) Size relative to Earth Mercury 4879.4 38% the size of Earth Mars 6779 53% the size of Earth Venus 12104 95% the size of Earth Earth 12756 100% the size of Earth Neptune 49528 388% the size of Earth Uranus 51118 400% the size of Earth Saturn 120660 945% the size of Earth Jupiter 142800 1120% the size of Earth Planets in order of distance from the Sun: Planet Distance from the Sun (AU/KM) Mercury 0.39 (57.9 million) Venus 0.723 (108.2 million) Earth 1 (149.6 million) Mars 1.524 (227.9 million) Jupiter 5.203 (778.3 million) Saturn 9.539 (1,427.0 million) Uranus 19.18 (2,871 million) Neptune 30.06 (4,497.1 million) Planets In Order Of Mass: Planet Mass (kg) Jupiter 1.8986 x 10²⁷ Saturn 5.6846 x 10²⁶ Neptune 1.0243 x 10²⁵ Uranus 8.6810 x 10²⁵ Earth 5.9736 x 10²⁴ Venus 4.8685 x 10²⁴ Mars 6.4185 x 10²³ Mercury 3.3022 x 10²³ The Terrestrial Planets In Order 1. Mercury Planet Mercury. Image source: NASA First planet in our solar system Mercury. It's a little smaller than earth's moon and very hot. As in 850 Fahrenheit or so. NASA launched the MESSENGER probe in 2004 to learn all about Mercury, since we really don't know much about it. Facts: Orbital Time: 88 Earth days 1 day on Mercury is 59 Earth days Has diameter of just over 3,000 miles 2. Venus Venus is the second planet in our solar system and is named after the Roman goddess of love. Venus is actually hotter than Mercury and abounds in greenhouse gases. Venus is similar to Earth in size and overall structure. The Soviet Union sent probes from the Venera series to learn more about Venus, which helped us learn a little about the atmosphere of Venus, and the Venus probes are actually the first artificial devices that entered the atmosphere of another planet. It's cool, isn't it? Facts: 7,500-mile diameter orbit takes about 225 Earth days 1 on Venus the equivalent of 241 Earth Earth Earth Land. Image source: NASA The Earth is the third planet from the Sun and is the planet we call home. It is the only planet we know of that can sustain and sustain life. The Earth was formed about 4 billion years ago and has experienced many changes during this period of time. Earth has 4 seasons due to the tilt of the Earth's axis, and our oceans are tides due to the gravitational pull of the moon. The moon is our only natural satellite. Facts: The orbit around the Sun takes 365 days 1 day 24 hours. Mars Planet Mars. Image source: NASA Mars is the fourth planet from the Sun and the last Earth planet. Mars is the focus of NASA and SpaceX because it is the only planet that humans can somewhat survive on (using technology and science, of course). Mars is very cold and is now inhabited exclusively by robots. The gravity of Mars is 1/3 of what's on Earth, but it's enough for humans to live on. Facts: 1 The Martian day is called sol 1, which is equivalent to 25 hours of Orbit Mars lasts 669 sols The Gas Giants The established planets separated from the Earth's planets by the belt of asteroids. All the gas giants have some kind of ring surrounding it 5 Jupiter Jupiter, as seen from the Voyager space probe. Image source: NASA/JPL Jupiter is the first of the gas giants and is the largest planet in our solar system. We got our first images of Jupiter near the Voyager space probe, which is actually still flying in space beyond our solar system. Jupiter consists mainly of hydrogen and helium, and it is still unknown whether the nucleus of Jupiter is solid or not. If Jupiter was about 80 times bigger, it would be considered a star, just like our sun. Around it are many natural satellites, which are believed to be from meteors. In fact, Jupiter protects the Earth from meteors, so in a sense Jupiter is a kind of protective older brother of the Earth. Facts: Features of an ongoing hurricane called the Great Red Spot Has diameter a whopping 86,881 miles 1 day on Jupiter equivalent to 9 hours orbit takes 12 years of Earth 6. Saturn, as you can see from Voyager. This is our first close image of Saturn. Image source: NASA Saturn is the second gas giant and is our second largest planet. Saturn was also spotted by Voyager, as you can see in the picture above. Saturn is most recognizable by its rings, which consists of ice and space debris. Saturn consists of hydrogen and helium, but it is unknown whether Saturn has a solid nucleus (as well as Jupiter). Saturn also has quite a few natural moons as well. Facts: Saturn is slightly smaller than Jupiter coming in diameter of almost 75,000 miles Its orbit around the sun takes 30 Earth years 1 a day on Saturn equivalent Earth Clock 7. Uranus, as Voyager saw. Image source: NASA Uranus is seventh from the sun and is the third of the gas giants. Just like Jupiter and Saturn, the Voyager probe gave us our first look at the planet in 1986. Our first images of Uranus appeared on the same day that Challenger exploded, killing 7 astronauts on board. The crew of the Space Shuttle Challenger honored us with the way they lived their lives. We will never forget them, nor the last time we saw them, this morning, as they were preparing for their journey and waved goodbye and slipped the sullen bonds of the earth to touch the face of God. - Ronald Reagan/uran has a very serious tilt to where the equator is actually at right angles to orbit. It is believed that Uranus had a collision with another planet, causing it to tilt. The planet is made up of helium and hydrogen and is thought to have icy elements on its surface. The core of Uranus is considered extremely icy, instead of being melted like other planets. Facts: Discovered in the 1780s, the 31,760-mile-diameter orbit around the Sun takes 84 Earth years 1 day equivalent to 18 hours of Earth 8. Neptune Not, as you can see from Voyager. Image source: NASA Neptune is the eighth planet from the Sun and is the last of the gas giants. It consists of hydrogen and helium first and is surrounded by a thick layer of clouds that houses winds faster than the speed of sound. The blue color is made by an abundance of methane, and it is not known whether the nucleus of Neptune is solid. Neptune was projected to exist in mathematics before we saw it, making it the first predicted planet. Facts: It was officially discovered in 1846 has with a diameter of 30,775 miles, making it the third largest planet in our solar system 1 orbit around the Sun takes 165 Earth years 1 a day equal to 19 hours on Earth Pluto Dwarf Planet Pluto. Image source: NASA Pluto was once the ninth planet in our solar system, but was removed in 2006 because for all the time we know about Pluto, there is still to complete the orbit around the Sun. Now people have asked to return Pluto to its planet, but who knows if it will happen. Pluto is only 1,400 miles wide, making it smaller than the United States. NASA sent a probe to Pluto in 2006 called New Horizons and completed The Pluto Flyby in 2015. Planet Nine The last planet on our Planet Nine list. We've never seen this final planet, but scientists predict it exists (just like they did with Neptune). Nothing really is known about Planet Nine, only that it probably exists. The image above the bright star shows the sun, which is quite a dang far away. This planet was predicted in 2014 after astronomers noticed that Neptune's orbit was slightly different from some other planets. There is a theory that this planet is massive and at some point there was a collision with Jupiter, bounced off her further. It's just a theory, but it's this still. Was this article useful? That's great to hear! Want more scientific trends? Sign up for our science newsletter! We're sorry about that! We love feedback:-) and want your input on how to make scientific trends even better. Better.