Planet Characteristics

Teacher Information

	Mercury	**Venus**	**Earth**	**Mars**	**Jupiter**	**Saturn**	**Uranus**	**Neptune**	**Pluto**
Named for	Roman god of merchants and traders	Roman goddess of love and beauty	* See note below chart *	Roman god of war	Roman ruler of the gods	Roman god of farming	Greek god of the sky	Roman god of the sea	Roman and Greek god of the underworld and dead
Diameter	3,032.4 miles	7,519 miles	7,926.2 miles	4,194 miles	88,736 miles	74,978 miles	32,193 miles	30,775 miles	1,423 miles
Number of satellites (moons)	0	0	1	2	16	20+	17	8	1
Rotation period (planet rotates on its axis)	58.65 (Earth days)	243.0 (Earth days)	23.93 (Earth hours)	1.026 (Earth days)	9.8 (Earth hours)	10.67 (Earth hours)	17.24 (Earth hours)	16 (Earth hours)	6.39 (Earth days)
Revolution period (planet completes one orbit)	0.241 (Earth years)	0.615 (Earth years)	1 (Earth years)	1.88 (Earth years)	11.86 (Earth years)	29.46 (Earth years)	84 (Earth years)	164.8 (Earth years)	247.7 (Earth years)
Temp – High/low (F°)	810 / -290	864	136 / -128	63 / -189	63 / -193	-285	-357	-360	-369 / -387
Atmospheric composition (air surrounding planet made of)	42% oxygen 29% sodium 22% hydrogen 6% helium	96.5% carbon dioxide 3.5% nitrogen	78% nitrogen 21% oxygen 1% argon	95% carbon dioxide 3% nitrogen 1.6% argon	90% hydrogen 10% helium .07% methane	97% hydrogen 3% helium .05% methane	83% hydrogen 15% helium 2% methane	80% hydrogen 19% helium 1% methane	Perhaps methane and nitrogen

	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune	Pluto
Number of rings	0	0	0	0	1 faint	100,000+ (grouped into 3 groups)	9	5	Not known
Gravitational pull (measured in G forces)	0.38	0.91	1	0.38	2.54	0.93	0.8	1.2	Not known
Mean distance from the sun (AU is an Astronomical Unit and is equal to 93 million miles.)	36 million miles (0.387 AU)	67.24 million miles (0.723 AU)	92.9 million miles (1 AU)	141.71 million miles (1.524 AU)	483.88 million miles (5.203 AU)	887.14 million miles (9.539 AU)	1,783.98 million miles (19.18AU)	2,796.46 million miles (30.06 AU)	3,666 million miles (39.53 AU)
Composition (planet made of)	Mostly rock and metal	Mostly rock and metal	Mostly rock and metal	Mostly rock and metal	Gases: mostly hydrogen and helium	Gases: mostly hydrogen and helium	Gases: mostly hydrogen and helium	Gases: mostly hydrogen and helium	Not known
Sequential order from the sun.	#1	#2	#3	#4	#5	#6	#7	#8	#9
Order by size (largest to smallest)	8	6	5	7	Largest 1	2	3	4	Smallest 9

Source: Microsoft Encarta Encyclopedia

* Earth is the only planet whose English name does not derive from Greek/Roman mythology. The name derives from Old English and Germanic. There are, of course, hundreds of other names for the planet in other languages. In Roman Mythology, the goddess of the Earth was Tellus - the fertile soil (Greek: Gaia, *terra mater* - Mother Earth). Source: The Nine Planets, http://www.seds.org/billa/tnp/earth.html

Planet Classification

Teacher Information

The nine bodies conventionally referred to as planets are often further classified in several ways:

- by composition:
  - **terrestrial** or **rocky** planets: Mercury, Venus, Earth, and Mars:
    - The terrestrial planets are composed primarily of rock and metal and have relatively high densities, slow rotation, solid surfaces, no rings and few satellites.
  - **jovian** or **gas** planets: Jupiter, Saturn, Uranus, and Neptune:
    - The gas planets are composed primarily of hydrogen and helium and generally have low densities, rapid rotation, deep atmospheres, rings and lots of satellites.
  - **Pluto**.
- by size:
  - **small** planets: Mercury, Venus, Earth, Mars and Pluto.
    - The small planets have diameters less than 13000 km.
  - **giant** planets: Jupiter, Saturn, Uranus and Neptune.
    - The giant planets have diameters greater than 48000 km.
  - Mercury and Pluto are sometimes referred to as **lesser** planets (not to be confused with **minor planets** which is the official term for asteroids).
  - The giant planets are sometimes also referred to as **gas giants**.
- by position relative to the Sun:
  - **inner** planets: Mercury, Venus, Earth and Mars.
  - **outer** planets: Jupiter, Saturn, Uranus, Neptune and Pluto.

    - The asteroid belt between Mars and Jupiter forms the boundary between the inner solar system and the outer solar system.
- by position relative to Earth:
    - **inferior** planets: Mercury and Venus.
        - closer to the Sun than Earth.
        - The inferior planets show phases like the Moon's when viewed from Earth.
    - **Earth**.
    - **superior** planets: Mars thru Pluto.
        - farther from the Sun than Earth.
        - The superior planets always appear full or nearly so.
- by history:
    - **classical** planets: Mercury, Venus, Mars, Jupiter, and Saturn.
        - known since prehistorical times
        - visible to the unaided eye
    - **modern** planets: Uranus, Neptune, Pluto.
        - discovered in modern times
        - visible only with telescopes
    - **Earth**.

Source: The Nine Planets, http://www.seds.org/billa/tnp/overview.html