

# Space: The Final Frontier



# Crater

Big hole in the ground caused by collisions with space objects



- Asteroid
- Large rocky space object with irregular shape



- Meteorite
- Space object that reaches Earth's surface
- [Extinction of dinosaurs Collisions.asf](#)

- Meteor
- Streak of light when a space object enters Earth's atmosphere at a high speed (friction)
- [Spaced Out Meteors and Shooting Stars.wmv](#)

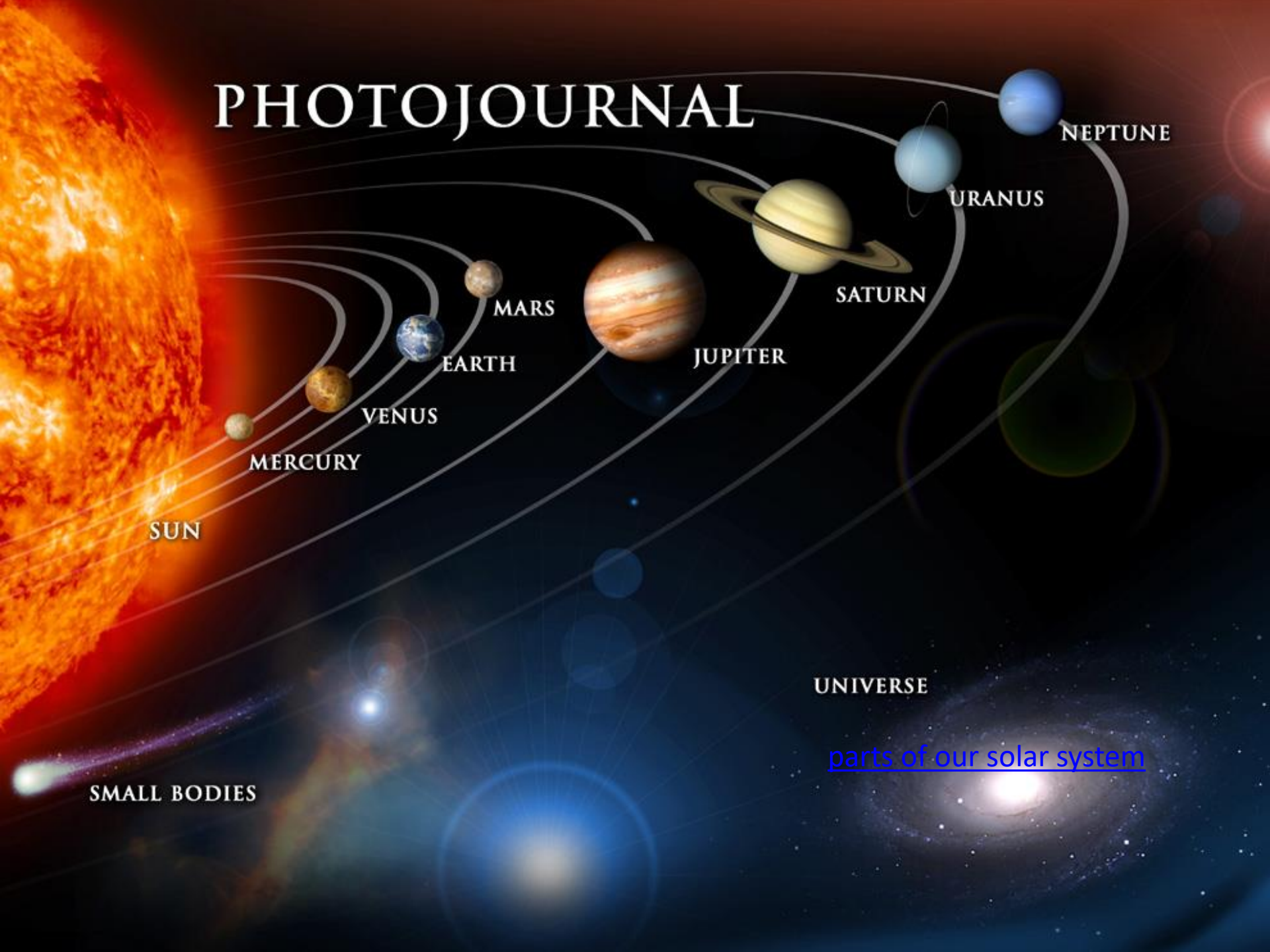
Satellite –

An object that orbits a larger object



- Solar System - Birth of the Solar System
- Electromagnetic Spectrum
- Viewing our Sun through different wavelengths.

# PHOTOJOURNAL



SUN

MERCURY

VENUS

EARTH

MARS

JUPITER

SATURN

URANUS

NEPTUNE

UNIVERSE

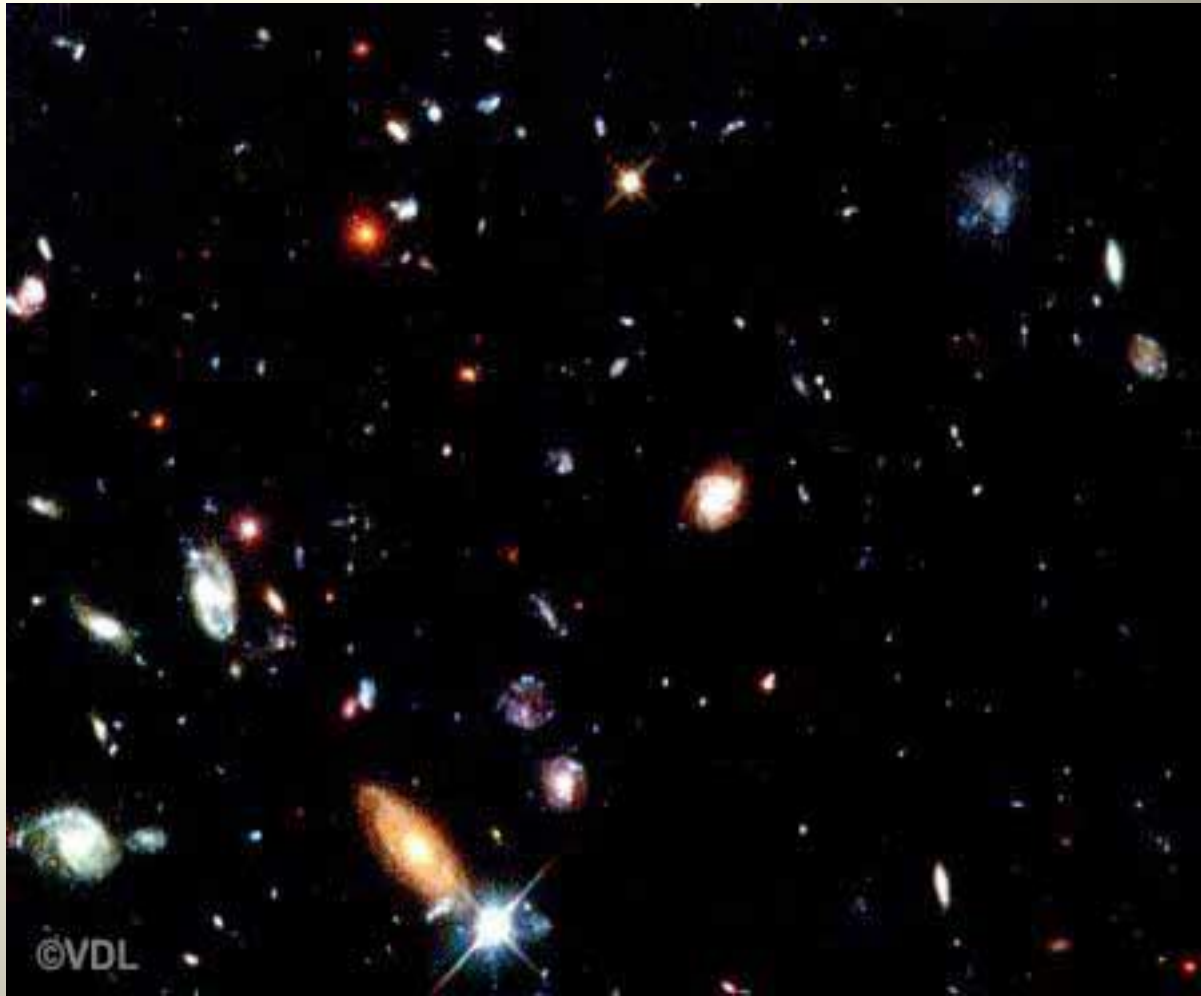
[parts of our solar system](#)

SMALL BODIES



- Solar system
- The Sun and its orbiting planets, moons, and other objects
- Galaxy
- A group of millions or billions of stars held together by gravity (Milky Way)
- Universe
- Everything that exists; all matter and energy

From the Hubble telescope several hundred galaxies never before seen are visible in this image. Though this view is a deep view of the universe, it spans only a very small speck of the sky.



virtual trip through the solar system

- Arrangement of the Universe

How big is big



- How fast is the Earth spinning?
- The circumference of the Earth at the equator is 25,000 miles.
- The Earth rotates in about 24 hours. Therefore, if you were to hang above the surface of the Earth at the equator without moving, you would see 25,000 miles pass by in 24 hours,
- $25000 \text{ miles} / 24 \text{ hours}$  or just over 1000 miles per hour.
- Earth is also moving around the Sun at about 67,000 miles per hour.

- Light years
- The distance light travels in one year -
- 9.5 trillion kilometers in one year



- 300,000 km/sec

It takes light from the sun less than 8 ½ minutes to reach Earth

The closest star (besides the Sun) is about 4 light years away