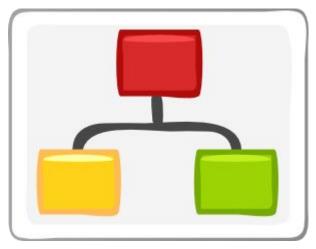
# HIERARCHY OF THE UNIVERSE

#### HIERARCHY

<u>HIERARCHY</u> is a system (un sistema) of ranking (clasificación) in a certain order (cierto orden)



http://www.dotafire.com/dota-2/guide/herohierarchy-8901



http://www.clipartpanda.com/categories/hierarchy-20clipart

#### HIERARCHY OF THE UNIVERSE

What is the difference between the universe, a galaxy (galaxia) and a solar system (sistema solar)?!

<u>Universe</u>= all of space (espacio) and time (tiempo) and its contents (contenidos)

<u>Galaxy</u>= a group of stars (estrellas), gasses, and dust (polvo) held together by gravity

<u>Solar system</u>= a system of planets and other objects orbiting (orbitando) a star



The Universe http://www.nasa.gov/centers/goddard/news/releases/2010/10-023.html



Andromeda Galaxy http://apod.nasa.gov/apod/ap051222.html

## OUR GALAXY

Our galaxy is the Milky Way!

It is over 100,000 lightyears in diameter.

<u>Lightyear</u>= the distance light travels in 1 year (*la distancia que la luz viaja en 1 año*)



http://www.nasa.gov/multimedia/imagegallery/image\_feature\_202.html

# OUR GALAXY: THE MILKY WAY

- Our galaxy has a spiral shape (forma de espiral).
- The Milky Way is one of millions (uno de los millones) of other galaxies in the Universe



http://www.nasa.gov/multimedia/imagegallery/image\_feature\_202.html

# OUR SOLAR SYSTEM

- Earth is part of a Solar System (parte de un Sistema solar)
- The Solar System is heliocentric, with the Sun in the middle (*el sol en el medio*)
- Our Solar System has 8 planets (planetas), three dwarf planets (Ceres, Pluto, Eres), 60 moons (lunas), thousands of asteroids, comets, and millions of meteors)



http://photojournal.jpl.nasa.gov/catalog/PIA12114

### PLANETS

<u>Planets</u> are bodies that orbit the Sun (orbitan el sol) and are held together by gravity (ligada por la gravedad)

- Our Solar System is composed of 9 planets
  - Mercury, Venus, Earth and Mars are
    "Terrestrial Planets"
  - Jupiter, Saturn, Uranus, and Neptune are "Jovian Planets'



http://www.physics.unlv.edu/~jeffery/astro/planet/planet.html

## WHAT ELSE IS IN OUR SOLAR SYSTEM?

<u>Moons</u> are satellites (satélites) of other orbiting bodies (cuerpos en órbita)

<u>Asteroids</u> are small orbiting bodies that are too small to be called planets

<u>Meteoroids</u> are debris that travel through space. Most are no bigger than a pebble (guijarro)



# HUBBLE SPACE TELESCOPE

- The Hubble Space Telescope is a telescope that was launched by NASA in 1990
- This telescope orbits the Earth at 17,000 mph while taking photographs of other stars, planets, and galaxies



http://www.nasa.gov/mission\_pages/hubble/story/index.html