

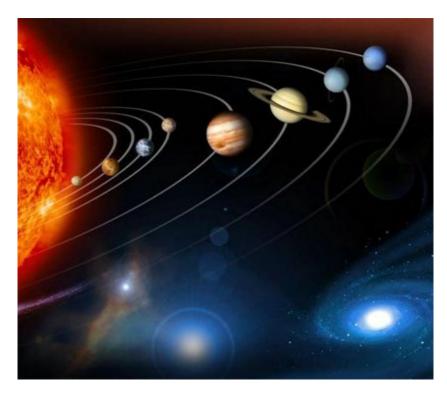
## **Introducing the Solar System**



The Solar System is made up of various celestial objects:

- the Sun
- the planets
- moons
- asteroids
- comets.

How do these objects interact?



The Sun is a star – a massive ball of hot glowing gas. It has the strongest **gravitational** field in the Solar System. All the other celestial bodies orbit around it.

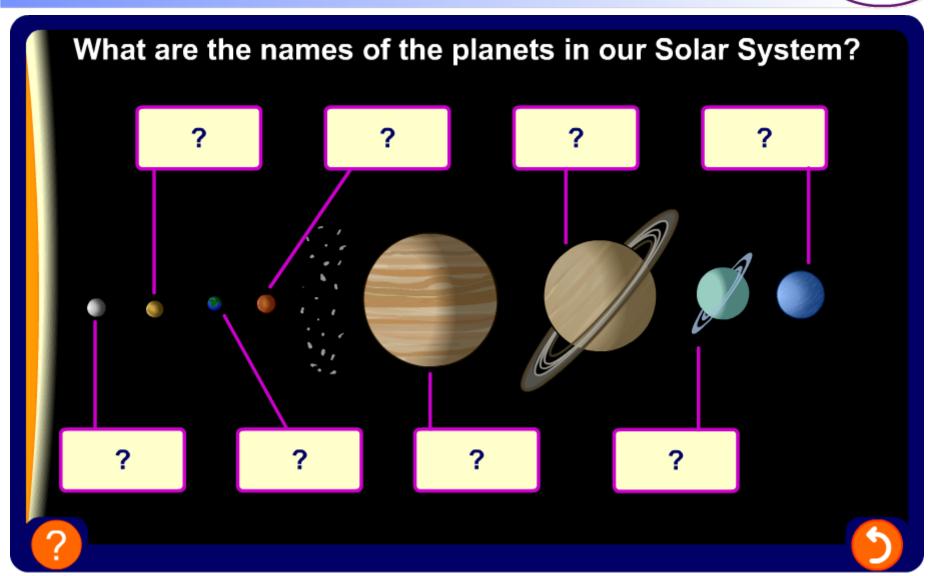




## **Labeling the planets**











#### Relative size of the Universe





#### Size in the Universe

moon

planet

star

solar system

galaxy

universe

The Moon is the Earth's only natural satellite.

The Moon has a diameter of 3.4 million meters, which is about a quarter the diameter of Earth.





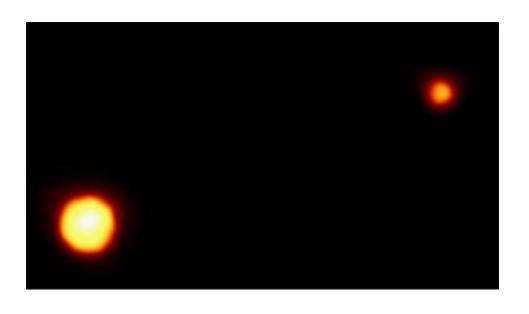




### Is Pluto a planet?



In 2006, the International Astronomical Union defined a planet as: "a celestial object that orbits the Sun, has enough mass to be spherical, and has cleared the area around its orbit of objects."



This photograph shows Pluto and its moon, Charon. Pluto's orbit is surrounded by smaller objects that have not been cleared by its gravitational field.

Pluto and the other 'smaller' planet-like objects such as Eris and Ceres have now been reclassified as 'Dwarf Planets'.





## **Data on the Solar System**





## The Solar System – facts and figures



Sun

Mercury

Venus

**Earth** 

**Mars** 

Jupiter

Saturn Uranus

Neptune

**Pluto** 







# The history of the Solar System









7 of 10 — © Boardworks Ltd 2010

# **Ideas about the Solar System**









## Solar System quiz





### Which object in our Solar System?

- a. It is the third planet from the Sun.
  - b. The only planet known to have life on it.







## Which planet?





#### Which planet completes each sentence?

- is 14.8 times as heavy as Earth.
- has 46 moons.
- is 4497 million kilometers from the Sun. 3.
- is the third planet from the Sun. 4.
- is the biggest planet. 5.
- takes 687 Earth days to orbit the Sun. 6.













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