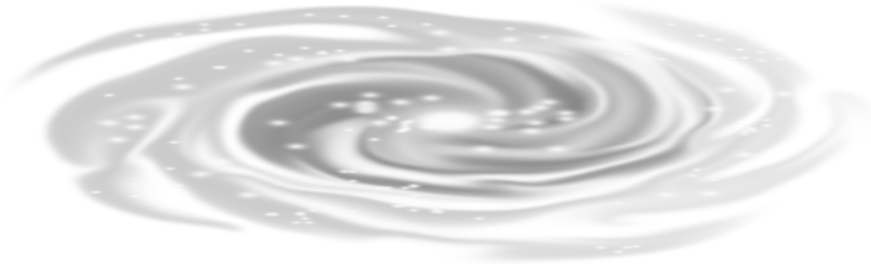
GRAVITY

in space



Name:

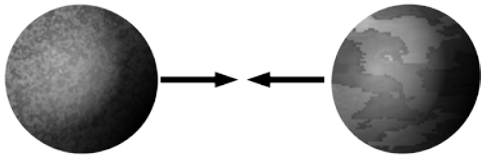
What is gravity?

- An attractive _____
- Something that exists between two objects that have _____

Why does earth exert more gravity on you than other objects around you?

The Force of Gravity

Greater Mass = Increase In Gravitational [ ]



[ ] Mass = Decrease In Gravitational Force

Reduction Of Distance = Increase Of Gravitational [ ]

[ ] Of Distance = Decrease Of Gravitational Force

Mass & Distance

pulls fusion star energy collide dust

How does it happen?

- A cloud of gas and _____ form a nebula.
- Gravity _____ the pieces together and makes them hotter.
- The temperature increases as the hydrogen atoms in the nebulae move faster and _____.
- This collision causes the nuclei of some atoms to combine and form helium. Nuclear _____ occurs when they join to form one larger nucleus.
- The fusion gives other nuclei more _____ – this causes a chain reaction of more fusion.
- A _____ is formed!

Gravity & Star Formation

superclusters gravity galaxies stars clusters universe

What are galaxies?

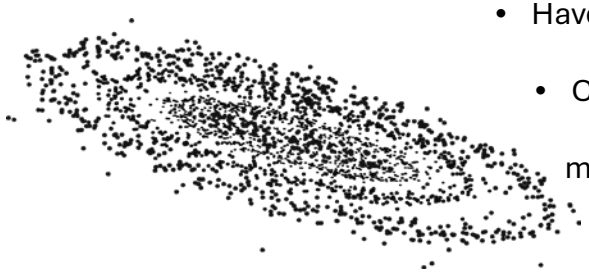
- Galaxies are huge collections of gas, dust, and stars held together by _____.
- Most stars exist in _____.
- There are hundreds of billions of galaxies in the _____.
- A single galaxy can contain hundreds of billions of _____.
- Galaxies are held together in groups called _____. They are not spread out evenly in the universe.
- Most clusters are a part of larger structures called _____.

Galaxy Formation

Label each galaxy type: spiral, elliptical, irregular

- Have spiral arms that begin at the central disc.
- Thicker near the center
- Stars, gas, and dust exist in the spiral arms

- Oddly shaped
- Contain young stars
- Have areas of intense star formation



- Have a higher percentage of old, red stars
- Contain little or no gas
- May form from the merging of two or more spiral galaxies

Types of Galaxies