Astronomy Intro & Big Bang Foldable

C-notes

Astronomy Intro

Astronomy- is the study of space- ALL OF IT

Cosmology: study of the origin and development of the universe.

Tools: light telescopes, radio telescopes,

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Astronomy Intro

Universe- includes ALL matter, energy and forces

Galaxies are the key unit that make up the universe

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Astronomy Intro

Big to small:

Universe- all matter, energy and forces. Made up of Galaxies

Galaxies- made of millions of stars

Stars- massive objects, made of gases that PRODUCE their own light

Some stars have objects orbiting them (planets, asteroids, etc.)

Our star- SUN is one of those stars

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Universe: The Big Bang

Key Vocabulary:

Light year- It is a measure of distance. It is the distance that light travels in one year. One light year is equal to:

9,460,800,000,000 kilometers!

Expansion (also known as inflation)- is the constant "spreading out" of all the galaxies in the Universe

Big Bang Foldable

Box 1

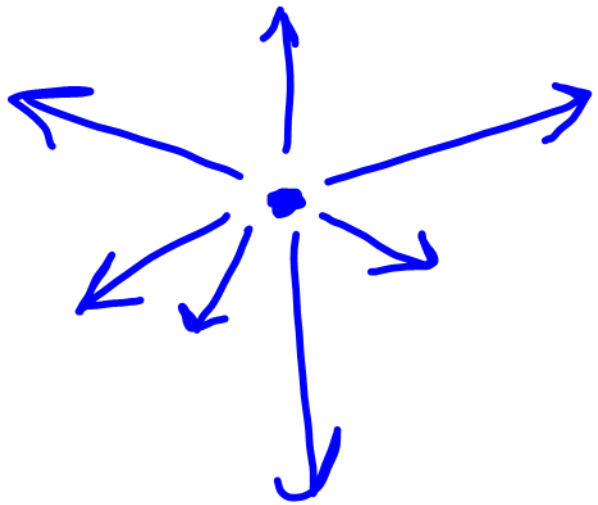
All was in one point

- **Hot, small, massive**

No atoms, molecules- NO MATTER
14 BILLION y.a.

Box 2

"Explosion" occurs stuff shoots out in all directions (but not evenly). Still, no matter exists



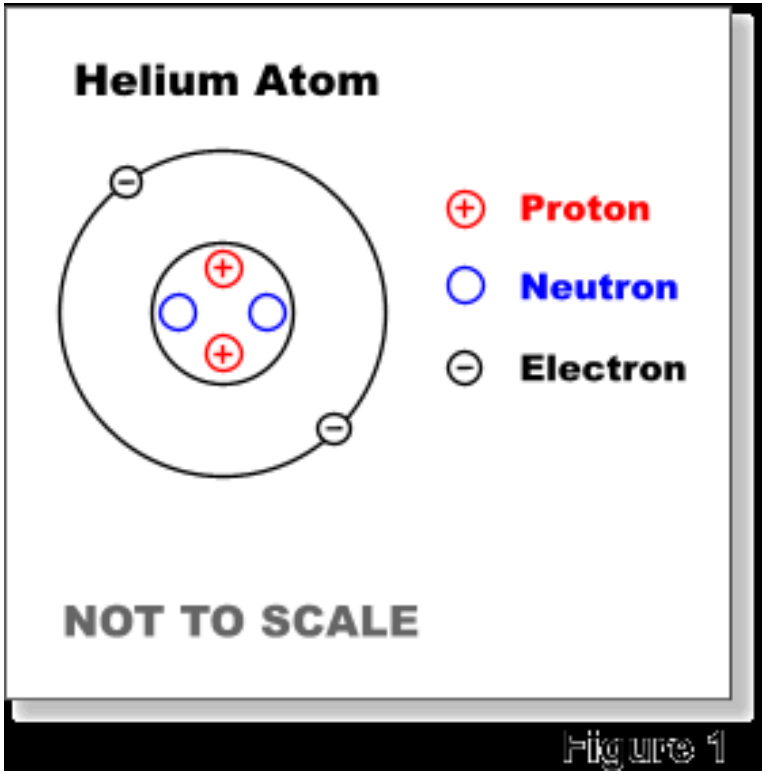
Box 3

Basic Subatomic particles form:

electrons (-)

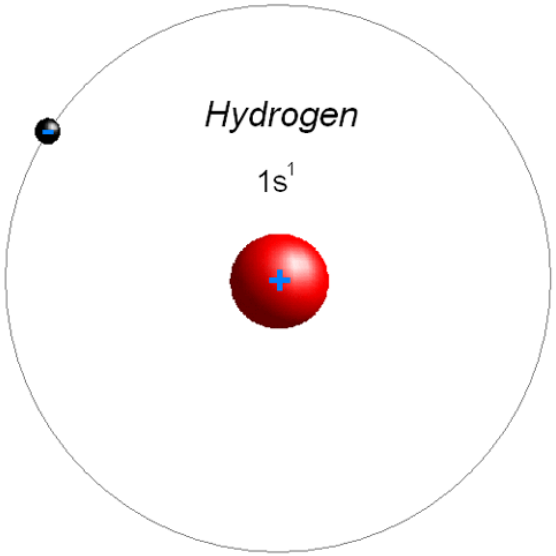
Protons (+)

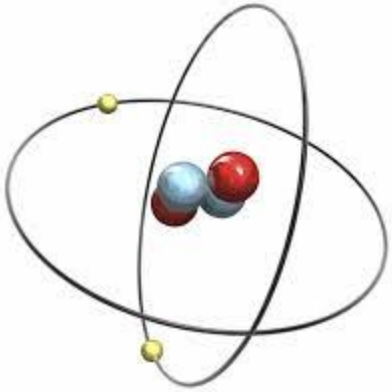
Neutrons



Box 4

First atoms/elements form:
The two smallest atoms-
hydrogen (H) and helium (He)



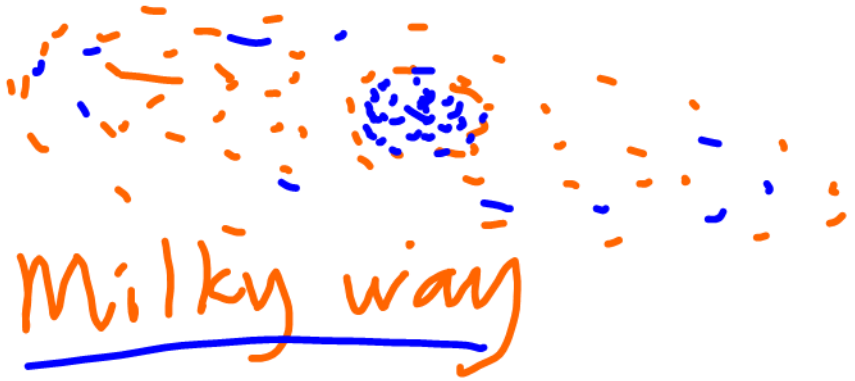


Box 5

Enough atoms were around so…the bunch of atoms could be pulled together (by gravity) to form stars

Box 6

Millions of stars in an area were held together by gravity and formed GALAXIES



Galaxies: Three types

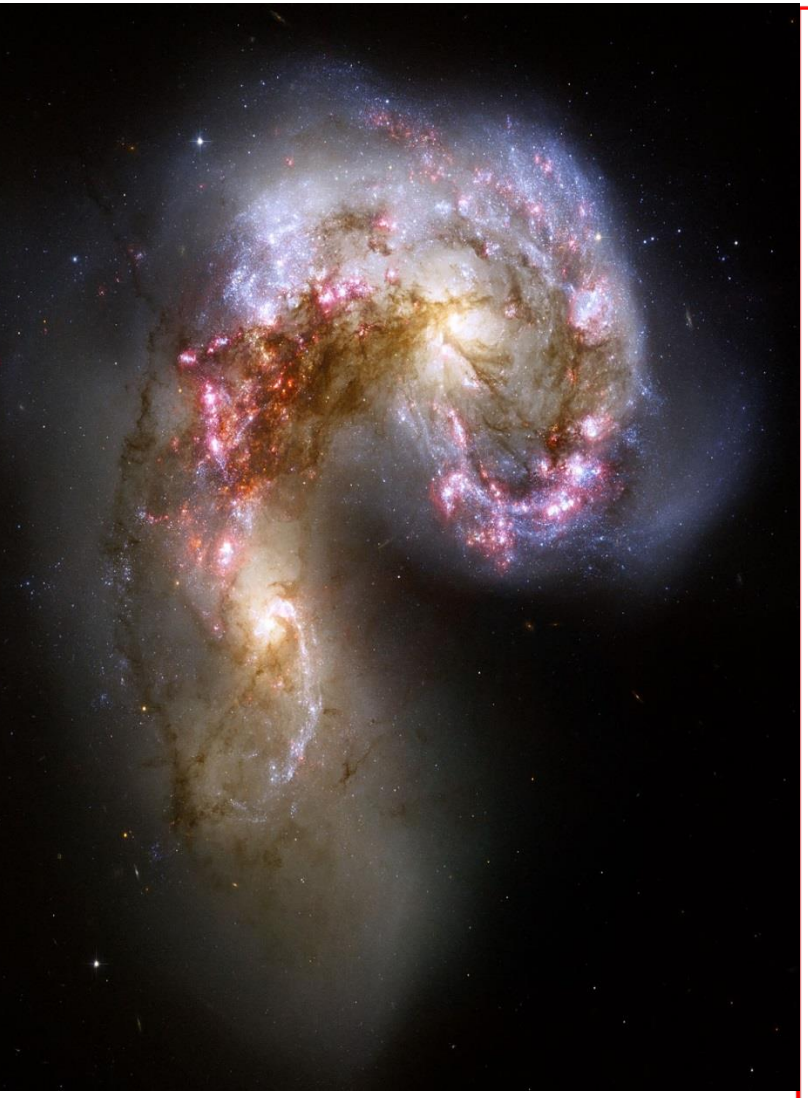
There are basically three types of galaxies:

Elliptical-are basically all bulge with no disk. They can range from spherical to elongated, football-like shapes

Galaxies: Three types

Spiral- are spiral-shaped. Spiral galaxies have three main components: a bulge, disk, and halo

Galaxies: Three types



Irregular galaxies have no regular or symmetrical structure.