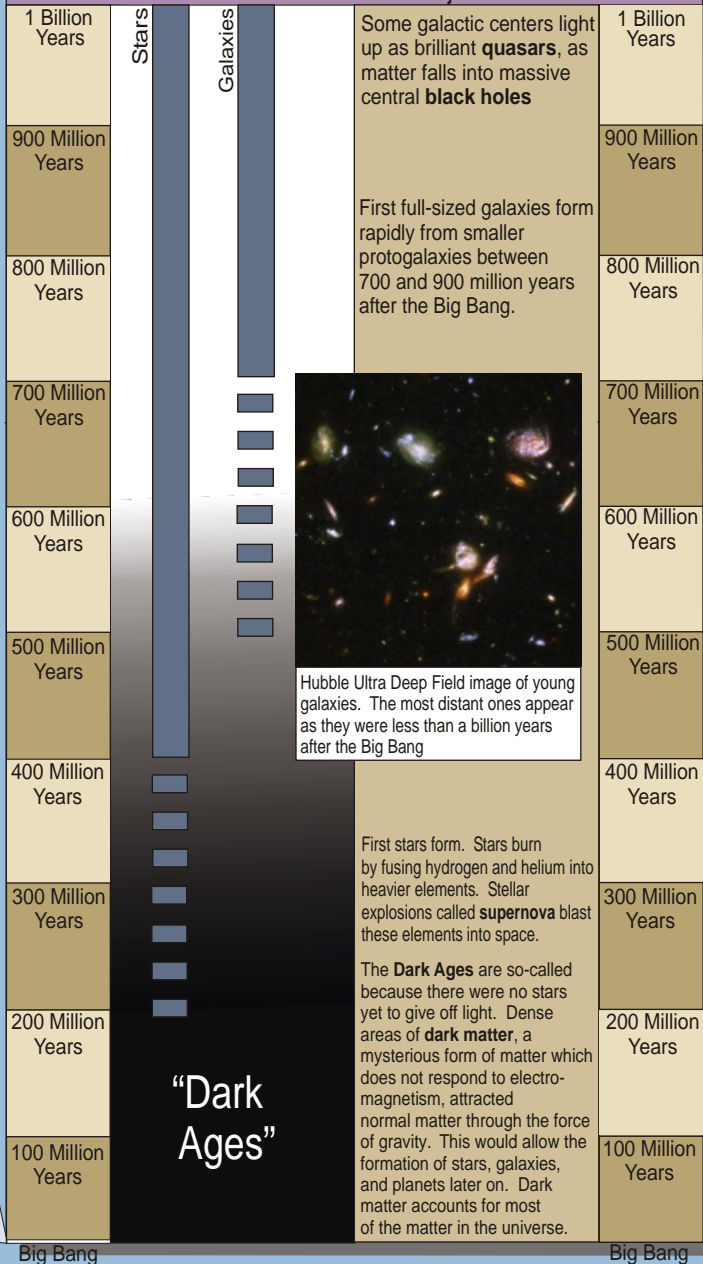
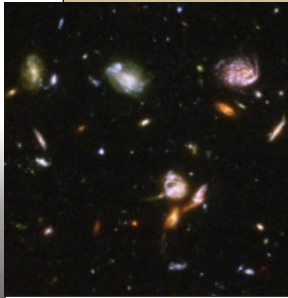


Timeline 2: Birth of Stars, Galaxies and Heavy Elements (Big Bang to 1 Billion* Years)

Major Events



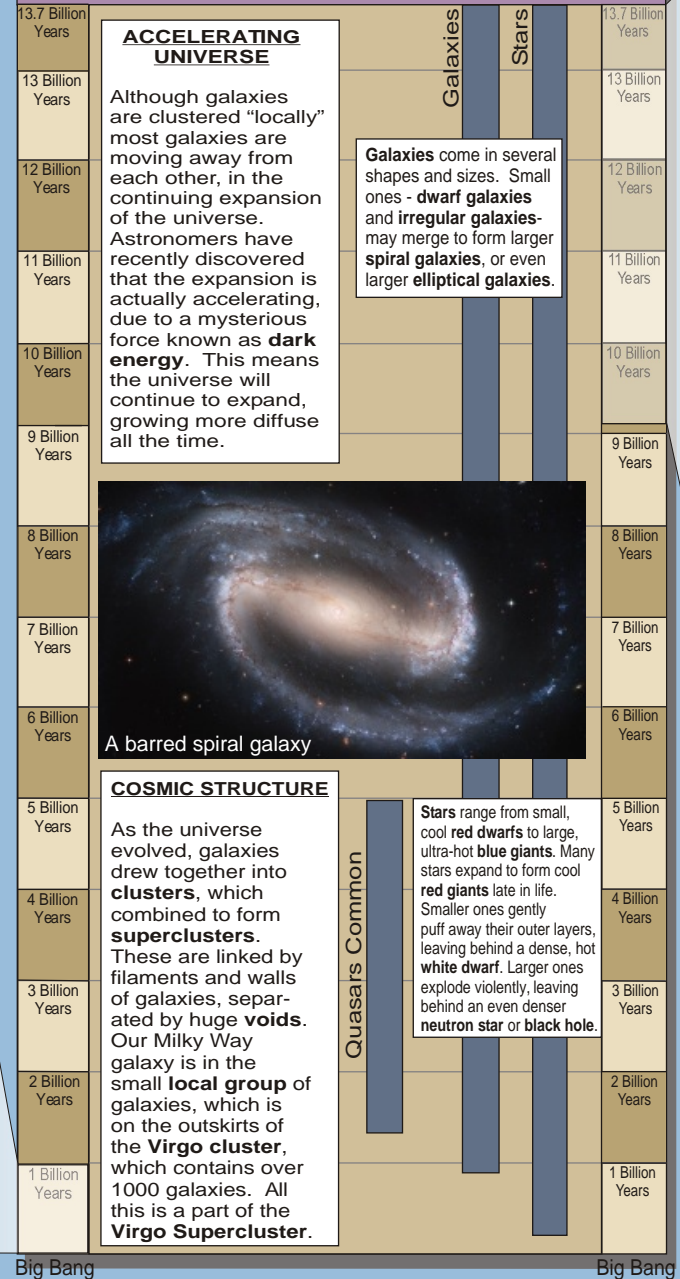
“Dark Ages”



Hubble Ultra Deep Field image of young galaxies. The most distant ones appear as they were less than a billion years after the Big Bang

* One billion equals 1000 million

Timeline 3. The Universe from the Big Bang to the Present Day (13.7 Billion Years)



A barred spiral galaxy

COSMIC STRUCTURE

As the universe evolved, galaxies drew together into **clusters**, which combined to form **superclusters**. These are linked by filaments and walls of galaxies, separated by huge **voids**. Our Milky Way galaxy is in the small **local group** of galaxies, which is on the outskirts of the **Virgo cluster**, which contains over 1000 galaxies. All this is a part of the **Virgo Supercluster**.

Quasars Common

Stars range from small, cool **red dwarfs** to large, ultra-hot **blue giants**. Many stars expand to form cool **red giants** late in life. Smaller ones gently puff away their outer layers, leaving behind a dense, hot **white dwarf**. Larger ones explode violently, leaving behind an even denser **neutron star** or **black hole**.

Big Bang