

2:18a Star Stages



Figure 17 Stingray Nebula (Hubble Space Telescope photo)

A star is born!

- ◆ NEBULAS ARE MASSIVE CLOUDS MADE OF GASES AND DUST
- ◆ STARS FORM FROM NEBULAS
- ◆ IT TAKES MILLIONS OF YEARS FOR A NEBULA TO BECOME A STAR

2:18b Star Stages

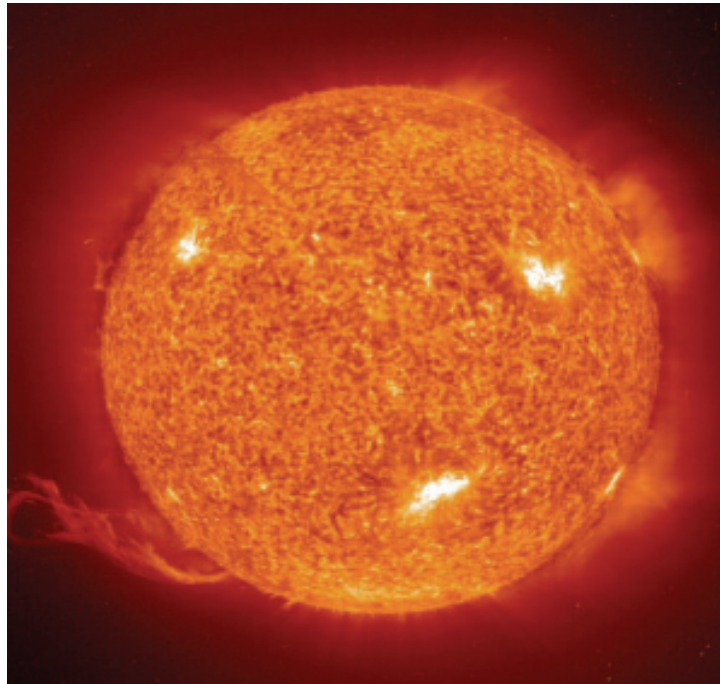


Figure 18 Red Giant (NASA photo)

- ◆ RED GIANT STARS REPRESENT THE MIDDLE AGE OF A STAR'S LIFE
- ◆ OUR SUN IS A RED GIANT STAR
- ◆ ASTRONOMERS ESTIMATE THAT OUR SUN IS A MIDDLE AGE STAR...ABOUT 4.6 BILLION YEARS OLD

2:18c Star Stages

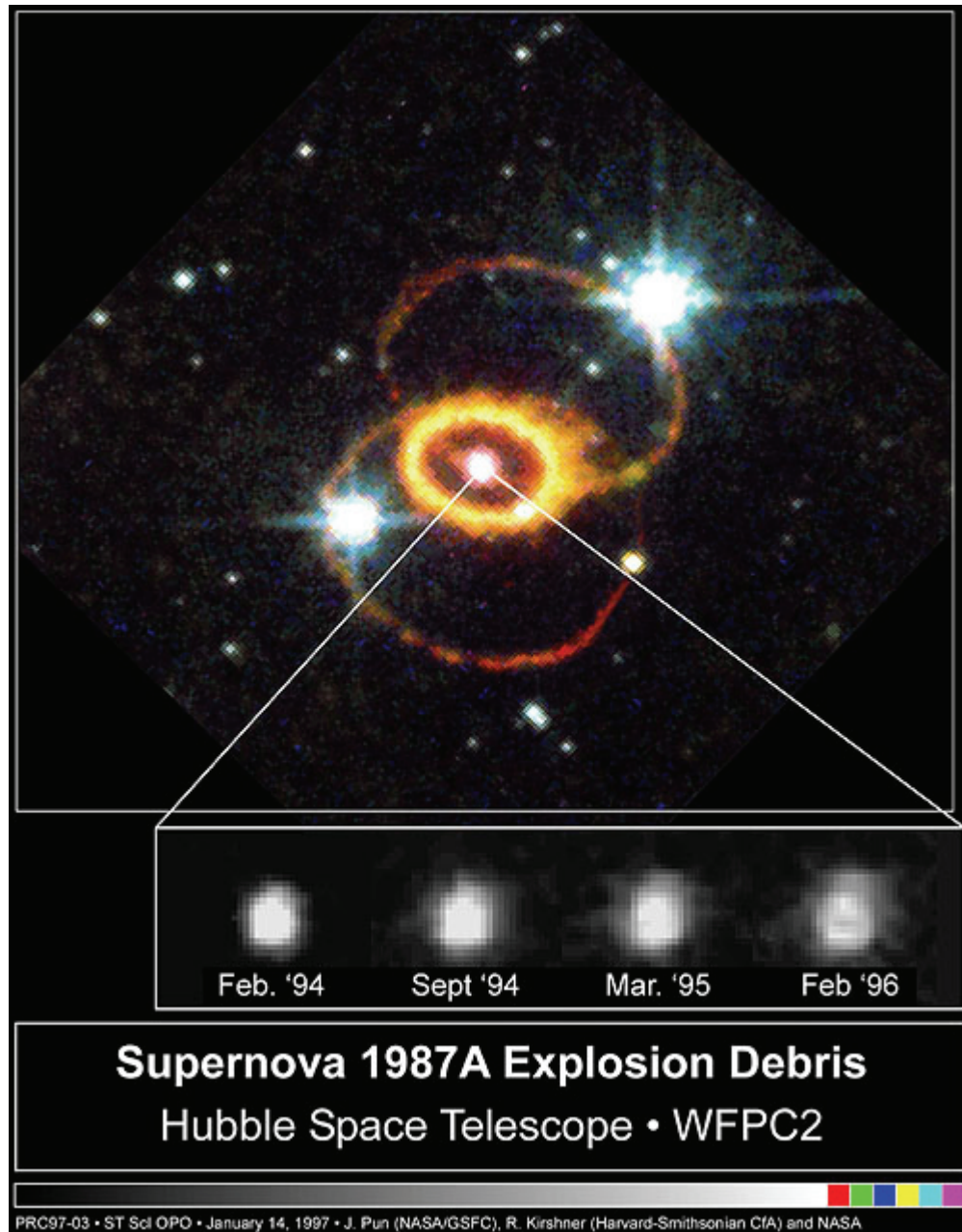


Figure 19 Supernova (Hubble Space Telescope photo)

- ◆ SUPERNOVA'S REACH MIDDLE AGE FASTER THAN OTHER STARS
- ◆ SUPERNOVA'S EXPLODE AND FADE

2:18d Star Stages



Figure 20 Arrow points to Neutron Star (Hubble Space Telescope photo)

- ◆ AS SUPERNOVA LOSES ENERGY IT CAN BECOME A NEUTRON STAR
- ◆ NEUTRON STARS END UP TO BE ABOUT 12 MILES IN DIAMETER

2:18e Star Stages

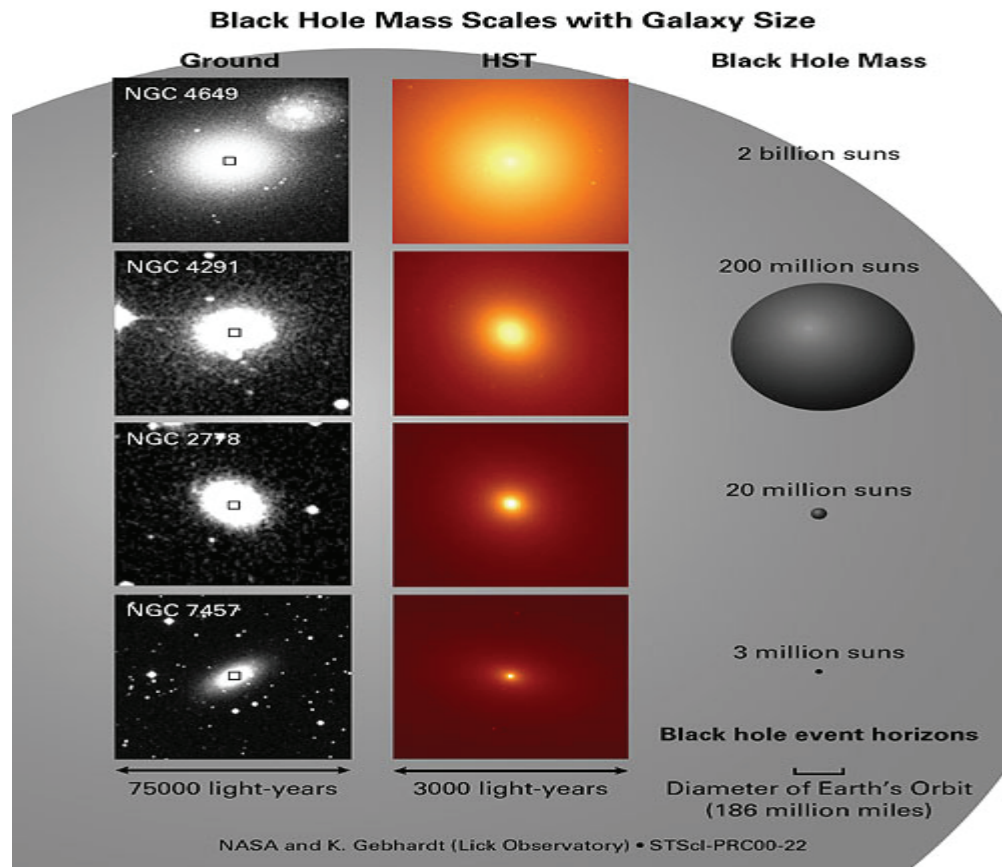


Figure 21 Black Hole (NASA graphic)

- ◆ SUPERNOVAS THAT COLLAPSE INTO THEMSELVES ARE BLACK HOLES
- ◆ BLACK HOLES HAVE STRONG GRAVITATIONAL PULL “SUCKING” IN DUST AND GASES THAT SURROUND IT

2:18f Star Stages

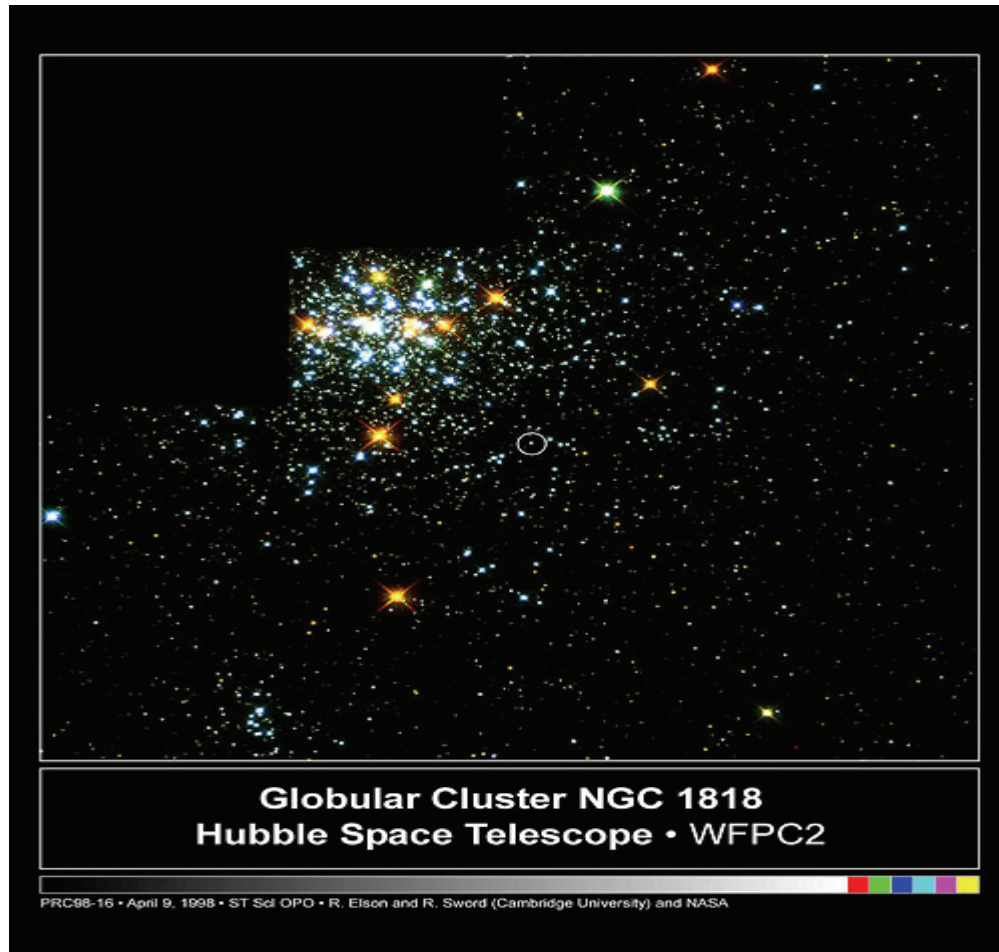


Figure 22 Arrow points to White Dwarf (Hubble Space Telescope photo)

- ◆ SOME RED GIANT STARS JUST FADE AWAY AND BECOME WHITE DWARFS
- ◆ SCIENTISTS BELIEVE THAT OUR SUN WILL BECOME A WHITE DWARF IN ABOUT 5 BILLION YEARS
- ◆ WHITE DWARFS EVENTUALLY BECOME BLACK DWARFS (cool, dark star)