Name of the celestial object	M17: Swan Nebula
Image (credit: ESA, NASA. Hubble Space Telescope)	

Name of the celestial object	M42: Orion Nebula.
Image (credit: ESA, NASA. Hubble Space Telescope)	

Name of the celestial object	M23
Image (credit: ESA, NASA. Hubble Space Telescope)	

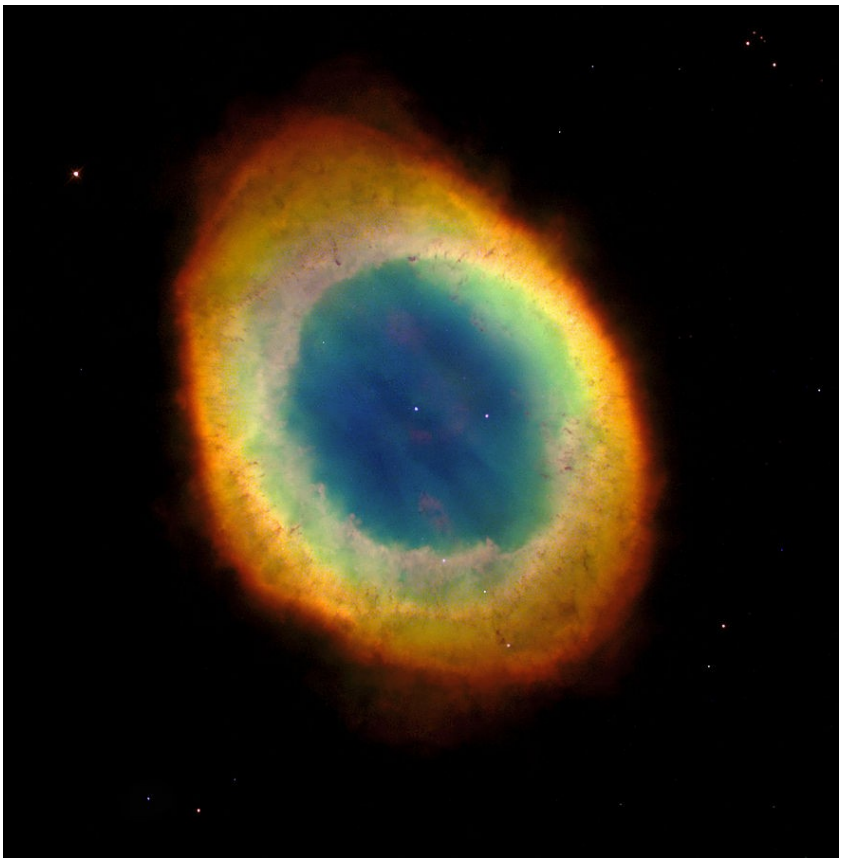
Name of the celestial object	M 80
Image (credit: ESA, NASA. Hubble Space Telescope)	

Name of the celestial object	M76: The little dumbell nebula.

Image (credit: taken by Robert J. Vanderbei.). CC BY 2.5

Name of the celestial object	M57: Ring Nebula.

Image (credit: ESA, NASA. Hubble Space Telescope)



Description
Stelar Nursery.. An interstellar cloud of mostly hydrogen begins to collapse under the force of gravity. As the cloud collapses the region of gas heats up and gets brighter (the total brightness goes down because the region gets much smaller). This region has enough mass for a nuclear fire to ignite in its core, once gas gets to the critical density. The nuclear fire burns hydrogen to form helium.

Age (years)	0 Years
Radius (compared to the Sun's)	-
Temperature (compared to the Sun's)	-
Brightness (compared to the Sun's)	-

Description
Protostar. Many protoplanetary discs in this nebula. Once fusion starts in the core of the collapsing cloud, a protostar has formed. These are very difficult to observe because they are hidden by a planet-forming disc.

Age (years)	20.000.000
Radius (compared to the Sun's)	3
Temperature (compared to the Sun's)	0,5
Brightness (compared to the Sun's)	1

Description
Open cluster. This is a cluster of young stars, many of which are at the Main Sequence phase of their lives. The protostar has remained approximately the same brightness but surface temperature increased as it continued to get smaller. It has now joined the main sequence where it will spend most of its life. The star is now **very similar to the Sun today**.

Age (years)	1.050.000.000
Radius (compared to the Sun's)	1
Temperature (compared to the Sun's)	1
Brightness (compared to the Sun's)	1

Description
Globular cluster. This contains some of the Galaxy's oldest stars in the Red Giant phase. After slowly burning through the hydrogen in core, helium is explosively ignited, forming heavier elements. The core heats up and the pressure inside the star increases, which makes the star swell to 100 times the Sun's radius. The total brightness of the star increases but because it is now much larger, the surface temperature is lower than the Sun's.

Age (years)	11.050.000.000
Radius (compared to the Sun's)	100
Temperature (compared to the Sun's)	0,5
Brightness (compared to the Sun's)	1000

Description
A planetary nebula. The swollen red giant begins to expand and contract, while helium burns in the core. These pulsations eventually lead to the outer layers of the star being completely ejected, forming a colourful planetary nebula. The very hot core of the star is left behind, which is called a White Dwarf star.

Age (years)	11.050.000.000
Radius (compared to the Sun's)	0,01
Temperature (compared to the Sun's)	10^5
Brightness (compared to the Sun's)	1000

Description
The white dwarf can be seen at the centre of expanding nebula. The core of the star is very hot, bright and incredibly dense, but without the outer layers the pressure at the centre is not high enough to continue the fusion fire. The star enters its final phase where it gradually gets cooler and fainter.

Age (years)	11.050.000.000
Radius (compared to the Sun's)	0,01
Temperature (compared to the Sun's)	20
Brightness (compared to the Sun's)	100

Name of the celestial object	Field stars
Image (credit: ESA, NASA. Hubble Space Telescope)	

Description
This is a typical patch of sky in the Milky Way galaxy, containing stars of all different masses and ages.

Age (years)	100,000,000,000
Radius (compared to the Sun's)	0,01
Temperature (compared to the Sun's)	-
Brightness (compared to the Sun's)	-