



**Chandra X-ray  
Observatory Center**

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**Planetary Nebulas:** A collection of six planetary nebulas ranging from about 2,200 to 5,700 light years from Earth.  
(Credit: X-ray: NASA/CXC/RIT/SAO/J.Kastner; Optical: NASA/ESA/AURA/STScI/Univ. Washington, B.Balick )

**Caption:** This collection contains planetary nebulas that have been observed both by Chandra and Hubble. Planetary nebulas are a phase that stars like the Sun undergo after they run out of nuclear fuel (as the Sun will billions of years from now). X-rays reveal the hottest and most energetic processes, including shock waves created by rapid winds from the star colliding with slower-moving material that has previously been ejected by the star. The colors of the Chandra data in the six planetary nebulas are: IC 418 (cyan), NGC 2371 (purple), NGC 3242 (blue), NGC 6302 (magenta), NGC 7027 (magenta), and NGC 7662 (blue).

***Chandra X-ray Observatory ACIS Image***

***CXC operated for NASA by the Smithsonian Astrophysical Observatory***