

Supplemental Image Set for Our Cosmic Connection & Stellar Cycles Card Set

1. The Tycho supernova remnant (NASA/Chandra image)
Type Ia supernova remnant – thermonuclear explosion of a white dwarf
<http://chandra.harvard.edu/photo/2011/tycho2/>
2. Protostar formation (NASA/JPL/Caltech/Spitzer/R. Hurt illustration)
Young star/protostar forming within cloud of gas and dust
<http://www.spitzer.caltech.edu/images/1852-ssc2007-14d-Planet-Forming-Disk-Around-a-Baby-Star>
3. The Crab Nebula & pulsar (NASA/Chandra/Hubble/Spitzer composite image)
A type II supernova remnant with a pulsar stellar core
<http://chandra.harvard.edu/photo/2009/crab/>
4. Cygnus X-1 (NASA/Chandra/M Weiss illustration)
A stellar mass black hole in an X-ray binary system with a normal star
<http://chandra.harvard.edu/photo/2011/cygx1/>
5. White dwarf with red giant companion star (ESO/M. Kornmesser illustration/video)
A white dwarf accreting material from a red giant which leads to a Type Ia supernova event <http://www.eso.org/public/videos/eso0943b/>
6. Carina Nebula (NASA/Hubble image)
A close-up of a pillar of active star-formation
<http://hubblesite.org/newscenter/archive/releases/2010/13/image/a/>
7. NGC 6826 (Chandra/Hubble composite image)
A planetary nebula with a white dwarf in the center
<http://chandra.harvard.edu/photo/2012/pne/>
8. A red giant star with planet (NASA illustration/animation)
An expanding red giant star with a nearby planet
http://science.nasa.gov/science-news/science-at-nasa/2012/25oct_friedplanets/
9. The Carina Nebula star-formation complex (NASA/Hubble image)
A 50-light year panorama of the Carina Nebula region
<http://hubblesite.org/newscenter/archive/releases/2007/16/image/a/>
10. Supernova Remnant E0102-72.3 (NASA/Chandra image)
A Type II supernova remnant with a neutron stellar core in the Small Magellanic Cloud galaxy <http://chandra.harvard.edu/photo/2009/e0102/>
11. M33 X-7
A Stellar mass black hole orbiting a massive normal companion star in the M33 galaxy (NASA/Chandra image) <http://chandra.harvard.edu/photo/2007/m33x7/>
12. Supernova remnant G292.0+1.8 (NASA/Chandra/DSS composite image)
A Type II supernova remnant with a wind driven pulsar in the center
<http://chandra.harvard.edu/photo/2007/g292/>

13. The Vela pulsar (NASA/Chandra image/video)
A rapidly rotating neutron star formed by a Type II supernova event spewing jets of charged particles http://chandra.harvard.edu/press/13_releases/press_010713.html
14. Two orbiting white dwarfs (NASA/Chandra image/illustration/video)
A binary system composed of two white dwarfs that will eventually coalesce http://chandra.harvard.edu/press/05_releases/press_053005.html
15. Clouds of Perseus (B. Caton, A. Howard, E. Zbinden, R.B. Andreo optical image)
The Perseus molecular cloud contains cold molecular clouds and several nebulae that are regions of active star formation.
<http://apod.nasa.gov/apod/ap111021.html>
16. M6 – The Butterfly Cluster (AURA/NOAO optical image)
An open cluster of young hot massive stars
<http://apod.nasa.gov/apod/ap990106.html>
17. Supernova remnant 0509-67.5 (NASA/Chandra/Hubble composite image)
A Type Ia supernova remnant in the Large Magellanic Cloud galaxy
<http://chandra.harvard.edu/photo/2010/snr0509/>
18. The Sun (NASA/SOHO extreme UV image)
The solar photosphere with several eruptions
<http://sohowww.nascom.nasa.gov/gallery/images/eit304prom.html>
19. Sharpless 171 (Nicholas Outters, Observatoire d'Orange optical image)
A cold molecular cloud with pillars of cold gas and dark dust and star formation regions
<http://apod.nasa.gov/apod/ap091018.html>
20. Supernova remnant SXP 1062 (NASA/Chandra, ESA/XMM Newton, AURA/NOAO composite image)
A Type II supernova remnant with a central pulsar in the Small Magellanic Cloud galaxy
<http://chandra.harvard.edu/photo/2011/sxp1062/>
21. Lupus 3 (ESO/La Silla Observatory/F. Comeron optical image)
A stellar nursery with newly formed young hot stars emerging from the dusty cloud
<http://scitechdaily.com/new-eso-image-shows-lupus-3/>
22. The Cat's Eye Nebula (NASA/Chandra/Hubble composite image)
A planetary nebula with a white dwarf in the center
<http://chandra.harvard.edu/photo/2008/catseye/>
23. Eta Carinae (NASA/Chandra/Hubble composite image)
A supermassive star rapidly approaching a supernova event
<http://chandra.harvard.edu/photo/2007/etacar/>
24. CoRoT-2a (NASA/Chandra/M. Weiss illustration)
A star with a nearby planet being destroyed by X-ray radiation from the star
<http://chandra.harvard.edu/photo/2011/corot/>

25. GRO J1655-40 (NASA/Chandra/M. Weiss illustration)
An X-ray binary system with a stellar mass black hole and a normal companion star
<http://chandra.harvard.edu/photo/2006/j1655/>
26. Supernova remnant G11.2-0.3 (NASA/Chandra image)
A Type II supernova remnant with a central pulsar stellar core
<http://chandra.harvard.edu/photo/2007/g11/>
27. Antares
A red supergiant star (Dick Locke, astrophotographer)
<http://apod.nasa.gov/apod/ap980726.html>
28. Orion (John Gauvreau, astrophotographer)
Orion is a constellation which includes Betelgeuse, a red supergiant, and M47 – a stellar nursery
<http://apod.nasa.gov/apod/ap081015.html>
29. Orion Molecular Cloud (Fosca Nit Observatory optical image, Spain)
A star formation region http://en.wikipedia.org/wiki/Orion_Molecular_Cloud_Complex
30. Earth (NASA satellite mosaic image)
Planet Earth formed from the gas and dust surrounding the Sun in its protostar stage
http://solarsystem.nasa.gov/missions/profile.cfm?MCode=Earth_Science
31. NGC 281 (NASA/Chandra/NSF/AURA/WIYN/U Alaska/ T.A Rector X-ray/Optical image) An active star formation region 9200 LY away in the constellation of Cassiopeia.
<http://chandra.harvard.edu/photo/2007/ngc281/index.html>
32. NGC 6888, the Crescent Nebula (J-P Metsavainio, Astro Anarchy image)
The Crescent Nebula contains a Wolf-Rayet red supergiant star
<http://apod.nasa.gov/apod/ap120816.html>
33. Mira (NASA/Chandra X-Ray image)
Mira is a red giant star with a white dwarf companion
<http://chandra.harvard.edu/photo/2005/mira/>
34. Red giant star with white dwarf companion (Softpedia artist illustration)
<http://news.softpedia.com/news/How-Type-Ia-Supernovae-Occur-259877.shtml>
35. V 1647 Orionis (NASA/Chandra/C. Carreau artist illustration)
A young and violent protostar transitioning to a young star
<http://chandra.harvard.edu/photo/2012/v1647/>
36. Betelgeuse (Xavier Haubois, Observatoire de Paris infrared image)
A red supergiant star <http://apod.nasa.gov/apod/ap100106.html>
37. PL 164+31.1 (Calar Alto Observatory, Spain optical image)
A planetary nebula with a white dwarf in the center
<http://apod.nasa.gov/apod/ap121030.html>
38. Type Ia supernova (ESO/VLT artist illustration)
The thermonuclear explosion of a white dwarf stellar core
<http://www.eso.org/public/news/eso0731/>

39. Two white dwarfs in a binary system (Softpedia artist illustration)
This system can lead to one larger mass white dwarf or a neutron star
<http://news.softpedia.com/news/How-Type-Ia-Supernovae-Occur-259877.shtml>
40. SNR 2006gy (NASA/Chandra/M. Weiss artist illustration/video)
A hypermassive supernova event that left no stellar core or black hole, only a remnant
<http://chandra.harvard.edu/photo/2007/sn2006gy/>
41. Delta Cephei light curve (AAVSO plotted observations)
Delta Cep is a Cepheid pulsating variable star
http://www.aavso.org/vsots_delcep
42. Z Ursae Majoris light curve (AAVSO plotted observations)
Z UMa is a semiregular red supergiant variable star
http://www.aavso.org/vsots_zuma
43. Light curve graph for supernova events
Graph showing curves for Type Ia, Type II and SNR 2006gy supernova events
<http://chandra.harvard.edu/photo/2007/sn2006gy/more.html>
44. Cas A supernova spectrum (NASA/Chandra graphic illustration)
A typical Type II supernova X-ray spectrum showing Bremsstrahlung radiation with superimposed emission peaks from elements
<http://chandra.harvard.edu/edu/formal/snr/bg5.html>
45. Mira light curve (AAVSO plotted observations)
Mira is a pulsating red giant variable star
<http://www.aavso.org/mira-variables-period-changes>
46. RR Lyrae light curve (Kosmas Gazeas, Univ of Athens, Greece)
A phase diagram for RR Lyrae constructed from a world-wide observing campaign
<http://www.univie.ac.at/tops/blazhko/RRLyrae2004.html>
47. SN 1998bu light curve (Caltec plotted light curve)
This is a typical Type Ia light curve
http://messier.seds.org/more/m096_sn98bu.html
48. RR Lyrae light curve (AAVSO plotted observations)
RR Lyraes are pulsating variable stars located in globular clusters
http://www.aavso.org/vsots_rrlyr