



# Cub Scout Astronomy

## Cub Scout Academics and Sports Workbook

This workbook is not required but can help you with this award. Belt Loops and Pins may be earned more than once.

Links to other workbooks and resources are at the end of this workbook: [Online Resources](#).

Send comments to the workbook developer: [craig@craiglincoln.com](mailto:craig@craiglincoln.com). Workbook updated: December 2008.

Scout's Name: \_\_\_\_\_

Pack: \_\_\_\_\_

### **Cub Scout Astronomy Belt Loop** (See the [Pin Requirements](#) below.)

**Complete these three requirements:**

1. Set up and demonstrate how to focus a simple telescope or binoculars. \_\_\_\_\_
2. Draw a diagram of our solar system--identify the planets and other objects.

3. Explain the following terms: planet, \_\_\_\_\_  
star, \_\_\_\_\_  
solar system, \_\_\_\_\_  
galaxy, \_\_\_\_\_  
the Milky Way, \_\_\_\_\_  
black hole, \_\_\_\_\_  
red giant, \_\_\_\_\_  
white dwarf, \_\_\_\_\_  
comet, \_\_\_\_\_  
meteor, \_\_\_\_\_  
moon, \_\_\_\_\_  
asteroid, \_\_\_\_\_  
and universe. \_\_\_\_\_

### **Cub Scout Astronomy Pin**

**Earn the Cub Scout Astronomy belt loop, and complete five of the following requirements:**

1. Draw a diagram of a telescope and explain how it works.

2. Locate and identify five constellations. You may use a telescope.

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3. Using a telescope, find at least one planet and identify it. \_\_\_\_\_

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4. Find the North Star. Explain its importance. \_\_\_\_\_

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5. Interview an astronomer. \_\_\_\_\_

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Learn about careers that relate to Astronomy. \_\_\_\_\_

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What school subjects will help you get a job in astronomy? \_\_\_\_\_

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6. Visit an observatory or a planetarium. Give a report on what you learned to your den. \_\_\_\_\_

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7. Make a poster illustrating the different kinds of stars. Include a diagram showing the life cycle of a star. \_\_\_\_\_

8. Learn about some of the early space missions. Tell your den or family about one of them. \_\_\_\_\_

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9. Find a current event about a recent happening related to space. Tell your den or family about this event. \_\_\_\_\_

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10. Make a chart to show the phases of the moon over a two-month period.

Define a blue moon. \_\_\_\_\_

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11. Write a report on two famous astronomers. \_\_\_\_\_

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12. Locate three major observatories on a map.



Explain why these locations are good for astronomy. \_\_\_\_\_

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**Online Resources** *(Use any Internet resource with caution and only with your parent's or guardian's permission.)*

Boy Scouts of America: ► [scouting.org](http://scouting.org)    ► [Guide to Safe Scouting](#)    ► [Age-Appropriate Guidelines](#)    ► [Safe Swim Defense](#)  
    ► [Scout](#)    ► [Tenderfoot](#)    ► [Second Class](#)    ► [First Class](#)    ► [Rank Videos](#)    ► [Safety Afloat](#)

Webelos Activity Badge Workbooks: [usscouts.org](http://usscouts.org) -or- [meritbadge.org](http://meritbadge.org)

Cub Scout Academics and Sports Workbooks: [meritbadge.org](http://meritbadge.org) -or- [Academics / Sports](#)

Boy Scout Merit Badge Workbooks: [usscouts.org](http://usscouts.org) -or- [meritbadge.org](http://meritbadge.org)    Merit Badge Books: [www.scoutstuff.org](http://www.scoutstuff.org)

**Requirement Resources**

These resources and much more are at: [http://meritbadge.org/wiki/index.php/Cub\\_Scout\\_Astronomy](http://meritbadge.org/wiki/index.php/Cub_Scout_Astronomy)

**Cub Scout Astronomy Belt Loop**

1. [Binoculars basics](#) - [Telescope types and instruments](#) – [Telescopes & Types](#) - [Astronomy for kids](#)
2. [Planet location and visibility by month](#) - [Solar System with planet links](#) - [Details on the planets](#)
3. [Astronomy for Kids Glossary](#) - [Eclipses, moon phases, Milky Way, etc.](#) - [Caltech Space Glossary](#) - [Big Dipper](#) - [Milky Way](#) - [Moon phases, surface, moon phase video, etc.](#) - [Sun](#)

**Cub Scout Astronomy Pin**

1. [How a telescope works](#)
2. [Constellations](#) – [Zodiac Constellations](#) - [Constellation Chart for any date, time, and location](#)
3. [How to use a telescope](#)
4. [How to find the north star.](#)
5. [Career opportunities in astronomy](#) - [Careers in Astronomy](#)
6. [Planetarium](#) – [Astronomical Observatory](#)
7. [Kinds of Stars](#) - [Life cycles of a star](#)
8. [Early space missions](#)
9. [Space current events](#)
10. [All about the moon](#)
11. [Famous astronomers](#)
12. See #6 above. See the [Cub Scout Astronomy Workbook](#) for a US map to use.

**General Resources**

Astronomical League: <http://www.astroleague.org>

NASA: <http://www.nasa.gov>

National Radio Astronomy Observatory: <http://www.nrao.edu>

Sky Maps: <http://www.skymaps.com>

Sky & Telescope: <http://www.skyandtelescope.com/>

SpaceWander.com: <http://www.spacewander.com>

Astronomy Watch: <http://www.astronomy-watch.com>

National Optical Astronomy Observatory: <http://www.noao.edu>

The Planetary Society: <http://planetary.org>

Space Telescope Science Institute: <http://hubblesite.org>

Space.com: <http://www.space.com/>

SpaceWeather.com: <http://www.SpaceWeather.com>