



Explore The Sky

Our Council's Own Interest Project Patch

For Cadette & Senior Girl Scouts

Requirements: Complete a total of seven (7) activities including: (2) Skill Builders; (1) Technology; (1) Service Project; and (1) Career Exploration. The other two (2) activities can be chosen from any category.

Skill Builders:

1. **Learn to use a star map.** Astronomy, like other hobbies, require learning new things. Its rewards come from discovering how to find your way around the night sky and from understanding the kinds of objects you see. Learn how to use a star map. Obtain a star map for the location and time of year you will be doing these activities. Many local newspapers have a star watch map, otherwise check with your local library.
2. **Learn the sky with your naked eye.** Go out at night and learn the names of the stars and the patterns they form. Learn which of the nine planets are visible to the naked eye. Locate at least one of these during the time you spend stargazing.
3. **Constellations.** Look at a star map, book, or other source of information and select six constellations. Using your star map, locate the constellations in the sky. Make a note of any distinguishing features such as shape, brightness or size.
4. **The North Star.** Find out why it is so important to be able to locate the North Star. Learn how to use the stars to find directions. Share this knowledge with someone else.
5. **The Solar System.** With your group, discuss the solar system. What objects make up our solar system? Be able to describe the differences among the sun, moon, planets, and stars.
6. **Try the Moon First.** To really appreciate the power of binoculars, look at the Moon. Using binoculars first, and then a telescope, look for

valleys, ridges, and mountains on the moon's surface. This activity is best done on nights of a first or last quarter moon.

Technology

1. Find out about the capabilities of today's telescopes. If possible, visit an observatory or a site on the World Wide Web to learn more about these telescopes.
2. Construct a "flying object" - something that is capable of flight. Be able to explain the scientific principles that governed your design. Determine which actual flight vehicles operate on the same principles.

Careers

1. **Education needed.** Find out about careers that could be pursued by a young person with an interest in astronomy or space. What kind of school courses would be beneficial for such a person?
2. **Famous women in Science.** Find out about some famous women in Science (Sally Ride, Christa McAuliffe, Kathryn Sullivan, etc.) Write a short biography about one of them. (See resource list for other examples).
3. **Local and National Organizations.** Find out about organizations, either local or national, that are devoted to furthering an interest in activities related to the sky, such as stargazing, astronomy or space exploration.

Service

1. **Create and share a game.** Create a game that can be used with others to share the information you have learned.
2. **Assist a Brownie or Junior Troop.** Help a Brownie or Junior Troop with a requirement from a Space related Try-it, Badge, or Activity.
3. **Create a model of the four phases of the moon.** Using scale models of the Earth and moon, and a flashlight as the sun, present to a Brownie or Junior Girl Scout how the planets and sun are positioned during each phase.

4. **Stories were used to give names to constellations.** Both modern and ancient people created stories as a way of naming constellations. Learn the stories from at least two (2) cultures, such as Greek, Norse, American Indian or Chinese, that were used to give names to at least two constellations. Prepare a skit based on one of these stories and present it to Brownie or Junior Girl Scouts.

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Reading Resources - Explore the Sky Interest Project Patch

How The Universe Works, by Heather Couper and Nigel Henbest. Published in 1994 by The Reader's Digest Association, Inc.

The Astronaut Training Book for Kids, by Kim Long. Published in 1990 by Lodester Books.

Astronomy, Breakthroughs in Science, by Carol J. Amato. Published in 1992 by Smithsonian Publishers, Inc.

Exploring Outer Space: Rockets, Probes, and Satellites, by Isaac Isamov. Published in 1995 by Gareth Stevens Publishing.

Famous First in Space, by Edward F. Dolan. Published in 1989 by Cobbehill Books.

Journey to the Planets (third edition), by Patricia Lauber. Published by Crown Publishers.

Liftoff! An Astronaut's Dream, by Astronaut R. Mike Mullane. Published by Silver Burdett Press in 1995.

The Moon, by Isaac Isamov. Published in 1994 by Gareth Stevens Publishing.

The Mustery of Comets, by Fred. L. Hipple. Published by Smithsonian Institution Press in 1985.

Our Universe, by Roy A. Gallant. Published by National Geographic Society.

Pockets - Space Facts, by Carole Scott and Clint Twist. Published in 1995 by DK Publishing, Inc.

Practical Astronomy, An Introduction to, by Brian Jones. Published by Chartwell Books, Inc.

Space, by Robert Snedden. Published in 1995 by Chelsea House Publishers.

Star Maps, Your Guide to the Night Sky, by T. Wynne Griffon. Published by Crescent Books.

The Star Guide, by Robin Kerrod. Published in 1993 by Macmillan Publishing.

Women Astronauts, Aboard the Shuttle (revised edition), by Mary Virginia Fox. Published by Julian Messner in 1987.

Video Resources - Astronomy 101 by Mazon Productions, Inc., Northbrook, IL 1994.

The Planets by Don Barrett Productions, Inc., BMG Video, 1993.

Magazines Resources

Air and Space; Astronomy; Discover; Kids Discover; Odyssey; Popular Science; Sky and Telescope.

Some Famous Women in this Field

Henrietta Leavitt - Jocelyn Bell - Judith Resnick - Kathryn Sullivan - Margaret Rhea Seddon - Shannon Lucid - Anna Fisher - May Cleave - Bonnie Dunbar - Sally Ride - Dr. Carol Mae Jennison - Christa McAuliffe