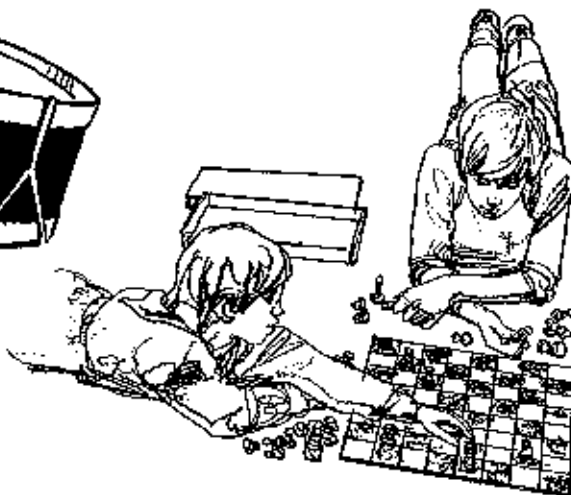
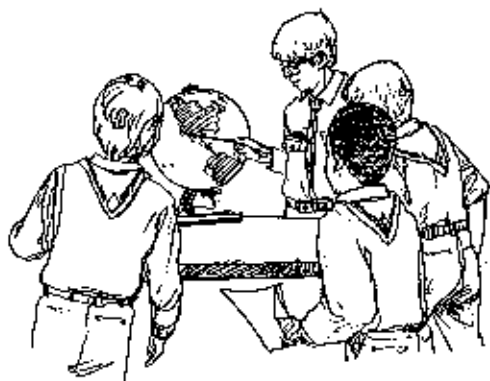
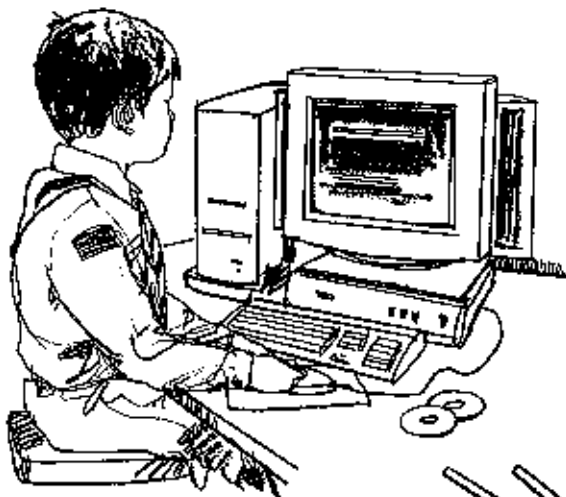


## Academics Belt Loop and Pin Requirements and Resources

Following are the requirements for earning the Academics belts loops and pins.

Remember:

- Belt loops and pins are earned only by Tiger Cubs, Cub Scouts, and Webelos Scouts (not adults).
- Requirements may be adjusted to accommodate the special needs of boys with disabilities.
- Webelos Scouts may earn a belt loop or pin a second time to qualify for Webelos activity badges.
- Boys may earn belt loops more than once; however, leaders should encourage boys to try different requirements and earn the pin. Packs should have a clear policy in place about whether the pack or the boy's family is responsible for the cost of awards earned more than once.



# Cub Scout Academics: Art



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

1. Make a list of common materials used to create visual art compositions.
2. Demonstrate how six of the following elements of design are used in a drawing: lines, circles, dots, shapes, colors, patterns, textures, space, balance, or perspective.
3. Identify the three primary colors and the three secondary colors that can be made by mixing them. Show how this is done using paints or markers. Use the primary and secondary colors to create a painting.

### Academics Pin

Earn the Art belt loop and complete six of the following requirements:

1. Visit an art museum, gallery, or exhibit. Discuss with an adult the art you saw.
2. Create two self-portraits using two different art techniques, such as drawing, painting, print-making, sculpture, or computer illustration.

3. Demonstrate how to make paper. Make a sample at least 4 inches by 4 inches.
4. Make a simple silkscreen or stencil. Print a card or T-shirt.
5. Create a freestanding sculpture or mobile using wood, metal, soap, papier-mâché, or found objects.
6. Create an object using clay that can be fired, baked in the oven, or hardened in water.
7. Photograph four subjects in one theme, such as landscapes, people, animals, sports, or buildings.
8. Make a collage using several different materials.
9. Use your artistic skills to create a postage stamp, book cover, or music CD cover.
10. Use a computer illustration or painting program to create a work of art.
11. Display your artwork in a pack, school, or community art show.

## Resources

Your local library, schools, museums, and art galleries are all excellent sources of information about art. Also visit art supply stores and teacher supply stores for more information and art materials. See original works of art at museums, art galleries, exhibits, and artists' studios.

Invite an artist to do a demonstration at a den meeting. Books, videos, and television can provide information about artists and their lives. Watch for children's art classes offered by after-school programs and local parks and recreation departments.

## Tips for Parents

- Establish a supportive and nurturing atmosphere where your child can learn to express himself through his art. Praise his work.
- Set aside a place where your child can practice his skills and work on projects without interruptions from siblings or pets.
- Help your child learn to see color and design in everyday objects, in nature, and in the artwork of others.
- Teach to your child how to use art materials. Let him experiment with the materials before he tries to create a finished product.
- Explain to your child the value of planning ahead. Gathering materials, setting up a work area, and possibly sketching out some preliminary ideas can help a child learn to focus on what he would like to accomplish.
- Encourage your child when he becomes frustrated. Explain that he will not like everything he creates. Give him the option to take a break and finish later. Assure him that through trial and error, he will learn to express his ideas through art.
- Read labels on all art materials. Avoid materials that are toxic, produce permanent stains, or might cause allergies.



## Viewing Art With Children

When visiting a museum or exhibit, let the child set the pace—museums can be tiring. Make the experience fun for both of you. Ask questions that spark the child's interest and help teach him how to view art.

- What did you notice first about the art piece (subject, colors, shapes, etc.)?
- What general style is the art?
- How does the work "speak" without using words?
- What do you think the artist wants the audience to see or feel?
- What part of the work gives you special feelings? What kind of feelings?

## Styles of Art

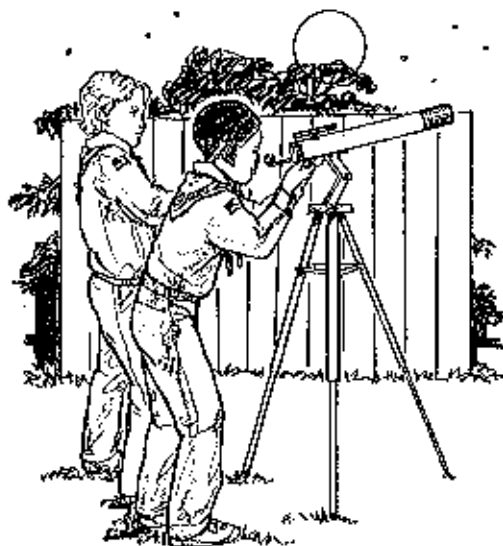
**Observations of the Real World.** The artist imitates life by using details, lighting, and carefully planned designs that show recognizable subjects.

**Creation of Imaginary Worlds.** The artist imaginatively combines familiar subjects or scenes in a way that may remind us of the strange combinations of images in dreams.

**Expression of Feelings.** The artist tries to capture a mood or feeling, rather than show how something looks. He or she may exaggerate, omit details, or intensify colors, shapes, or lines to help us identify the feelings.

**Invention of Visual Order.** The artist creates an arrangement of lines, shapes, and colors that are meant to intrigue our eye and fascinate us.

# Cub Scout Academics: Astronomy



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Demonstrate how to focus a simple telescope or binoculars. (A local astronomy club may be a resource for this activity.)
- \_\_\_\_\_ 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, star map and universe.

### Academics Pin

Earn the Astronomy belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. Draw a diagram of a telescope and explain how it works.
- \_\_\_\_\_ 2. Explain how to use a star map.
- \_\_\_\_\_ 3. Draw and label five constellations. See if you can locate any of them in the sky using a star map.
- \_\_\_\_\_ 4. Find the North Star. Explain its importance.

- \_\_\_\_\_ 5. With your parent's or adult partner's permission, interview an astronomer. This person may be a professional or an amateur astronomer from a local astronomy club. Explain what you learned to your den or family.
- \_\_\_\_\_ 6. Learn about careers that relate to astronomy. Make a list of those careers. Tell your den or an adult family member what school subjects will help you get a position in those careers.
- \_\_\_\_\_ 7. Visit a planetarium or a local astronomy club. Give a report on what you learned to your den.
- \_\_\_\_\_ 8. Make a poster illustrating the different kinds of stars. Include a diagram showing the life cycle of a star.
- \_\_\_\_\_ 9. Learn about some of the early space missions. Tell your den or family about one of them.
- \_\_\_\_\_ 10. Find a news story about a recent happening related to space. Tell your den or family about this event.
- \_\_\_\_\_ 11. Write a report on two famous astronomers.
- \_\_\_\_\_ 12. Locate three major observatories on a map. Explain why these locations are good for astronomy.

## Resources

Check the children's section at your local library for information on astronomy. If you have access to the Internet, try using various search engines to look for the information you need. (Be sure you have your parent's or adult partner's permission first.)

A field trip to an observatory, planetarium, museum, or local astronomy club may provide an excellent experience in astronomy.

Be sure to check out the Space Place; it has lots of fun, astronomy-related activities:

<http://spaceplace.jpl.nasa.gov>

And don't miss these good astronomy sites, either!

<http://astroleague.org>

<http://skyan Telescope.com>

<http://stardate.org>

## Constellations

Aries—The Ram

Cancer—The Crab

Crux—Southern Cross

Draco—The Dragon

Gemini—The Twins

Libra—The Scales

Orion—The Hunter

Pegasus—The Winged Horse

Pisces—The Fish

Sagittarius—The Archer

Scorpius—The Scorpion

Taurus—The Bull

Ursa Major—The Great Bear

Ursa Minor—The Lesser Bear

## Famous Spacecraft

Sputnik

Telstar

Apollo 11

Apollo 13

International Space Station

Friendship 7

Lunar Lander

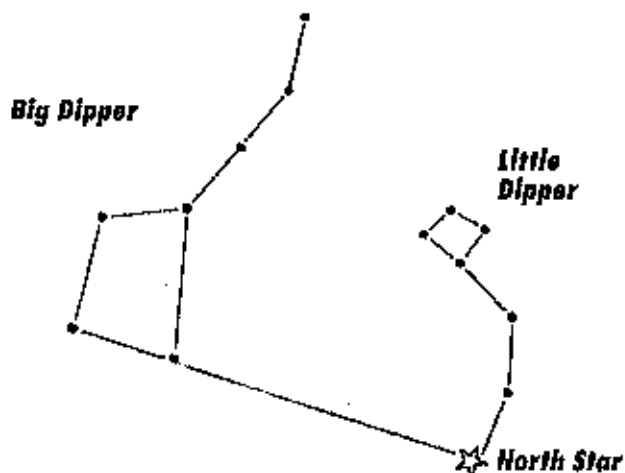
Challenger

Space Shuttle

Locate the North Star (Polaris) in the night sky. The North Star is the last star in the handle of the Little Dipper constellation. If you have trouble finding it, look for the Big Dipper. The two lowest stars in the Big Dipper (the outermost stars of the cup of the dipper) form a straight line that "points" to the North Star (if you imagine the distance between the two lowest stars as being  $x$ , the north star will be a distance of  $4x$  away in the direction that the two lowest stars point). You may also find the constellation Cassiopeia, which is always opposite the Big Dipper. The North Star is located about midway between the central star of Cassiopeia and the Big Dipper (see figure).

Draw an imaginary line straight down from the North Star to the ground. This direction is true north, and if you can find a landmark in the distance at this point, you can use it to guide yourself.

## Finding the North Star



Finding the North Star is relatively easy once you find the Big Dipper—one of the easiest constellations to locate. Once you find the North Star you can find the Little Dipper. They won't always be at the same angle, though—in the course of a year, they will both rotate completely around the North Star.

## Famous Astronauts

Sally Ride

John Glenn

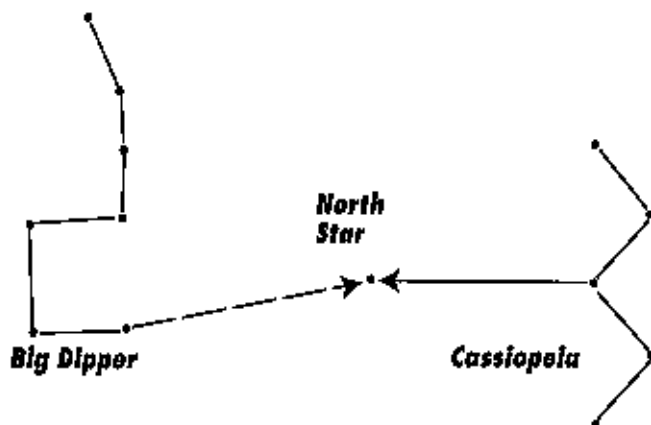
Yuri Gagarin

Buzz Aldrin

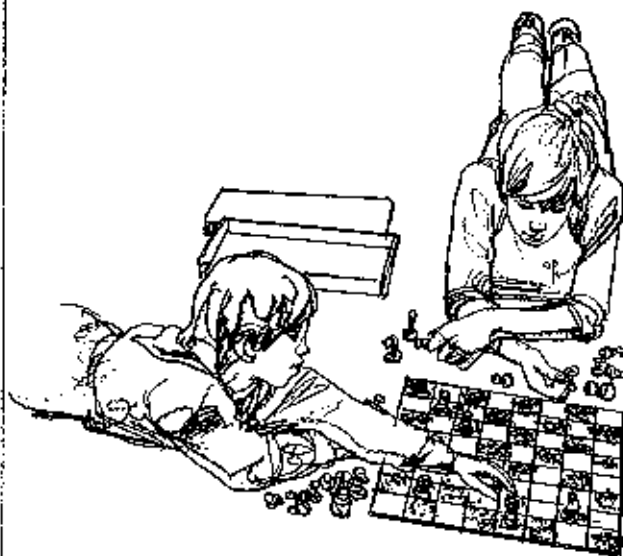
Ellison Sizuka

Neil Armstrong

Alan Shepherd



# Cub Scout Academics: Chess



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Identify the chess pieces and set up a chess board for play.
- \_\_\_\_\_ 2. Demonstrate the moves of each chess piece to your den leader or adult partner.
- \_\_\_\_\_ 3. Play a game of chess.

### Academics Pin

Earn the Chess belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. Demonstrate basic opening principles (such as development of pieces, control center, castle, don't bring queen out too early, don't move same piece twice).
- \_\_\_\_\_ 2. Visit a chess tournament and tell your den about it.
- \_\_\_\_\_ 3. Participate in a pack, school, or community chess tournament.
- \_\_\_\_\_ 4. Solve a prespecified chess problem (e.g., "White to move and mate in three") given to you by your adult partner.
- \_\_\_\_\_ 5. Play five games of chess.
- \_\_\_\_\_ 6. Play 10 chess games via computer or on the Internet.
- \_\_\_\_\_ 7. Read about a famous chess player. Tell your den or an adult family member about that player's life.
- \_\_\_\_\_ 8. Describe U.S. Chess Federation ratings for chess players.
- \_\_\_\_\_ 9. Learn to write chess notation and record a game with another Scout.
- \_\_\_\_\_ 10. Present a report about the history of chess to your den or family.

## Reasons for Playing Chess

- Chess is an educational tool.
- Chess uses higher-order thinking skills.
- Chess provides for healthy competition.
- Chess knows no age, gender, or cultural boundaries.
- Chess can be played anywhere.
- Chess is cost-effective.
- Chess can be an individual or group activity.
- Chess can lead to national recognition.

## Know Your Chess Pieces

**The King:** The King is the most important piece. When he is trapped, his whole army loses. The King can move one square in any direction. (An exception is "castling," which is explained in the books listed in Resources.)

The King may never move into check—that is, onto a square attacked by an opponent's piece.

**The Queen:** The Queen is the most powerful piece. She can move any number of squares in any direction—horizontal, vertical, or diagonal—if her path is not blocked.

**The Rook:** The Rook is the next most powerful piece. The Rook can move any number of squares vertically or horizontally if its path is not blocked.

**The Bishop:** The Bishop can move any number of squares diagonally if its path is not blocked. At the beginning of the game, you have one Bishop on each side of the King.

**The Knight:** The Knight's move is special, as it can jump over other pieces. It moves two squares horizontally or vertically and then makes a right-angle turn for one more square. The Knight always lands on a square opposite in color from the color of the square it left.

**The Pawn:** The Pawn moves straight ahead (never backward), but it captures diagonally. It moves one square at a time, except on its first move, when it has the option of moving forward one or two squares.

## Resources

### U.S. Chess Federation

Phone: 931-787-1234

Web site: <http://www.uschess.org/>

### Chess-in-the-Schools

520 Eighth Avenue, Floor 2

New York, NY 10018

Phone: 212-643-0225; fax: 212-564-3083

Web site: <http://www.chessintheschools.org>

Chess-in-the-Schools is a nonprofit corporation dedicated to motivating at-risk children and enhancing their higher-order thinking skills, self-confidence, and academic achievement by using the game of chess as an educational tool.

## Literature About Chess

*How to Teach Chess*—Chess-in-the-Schools

*How to Play Chess*—Chess-in-the-Schools

*School Mates* magazine—U.S. Chess Federation

*Chess Life* magazine—U.S. Chess Federation

*How to Play Chess*—U.S. Chess Federation

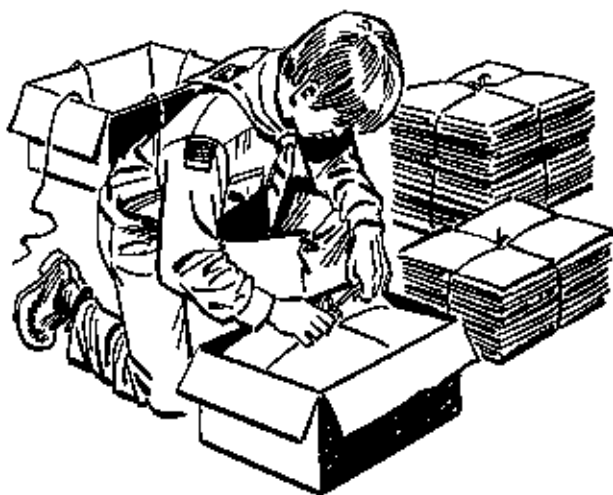
*Bobby Fischer Teaches Chess*—Bobby Fischer  
(Bantam, 1992)

*Simple Checkmates*—A. J. Gillam (Ballantine, 1996)

*The Effect of Chess on Reading* (for leaders)—Stuart Marguiles, Ph.D.



# Cub Scout Academics: Citizenship



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Develop a list of jobs you can do around the home. Chart your progress for one week.
- \_\_\_\_\_ 2. Make a poster showing things that you can do to be a good citizen.
- \_\_\_\_\_ 3. Participate in a family, den, or school service project.

### Academics Pin

Earn the Citizenship belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. Interview someone who has become a naturalized citizen. Give a report of your interview to your den or family.
- \_\_\_\_\_ 2. Write a letter to your newspaper about an issue that concerns you. Send your letter by mail or e-mail.

- \_\_\_\_\_ 3. Create a collage about America.
- \_\_\_\_\_ 4. Make a list of items to check for a home safety or energy audit and then inspect your home. Talk with your parent or adult partner about correcting any problems you find.
- \_\_\_\_\_ 5. Visit your local site of government. Interview someone who is involved with the governmental process.
- \_\_\_\_\_ 6. Visit a courtroom and talk with someone who works there.
- \_\_\_\_\_ 7. Go to the polls with your parents when they vote. Talk to them about their choices.
- \_\_\_\_\_ 8. Take part in a parade with your den or pack.
- \_\_\_\_\_ 9. List ways you can recycle various materials and conserve and protect the environment.
- \_\_\_\_\_ 10. Attend a community event or visit a landmark in your community.



## Resources

Check out your local library and schools for information about citizenship. You can find magazines and books for children that focus on concern for the community, the environment, history, and other people. Another resource is *Boys' Life* magazine.

Leaders can find more ideas for citizenship activities by reading the merit badge pamphlets for *Citizenship in the World*, *Citizenship in the Nation*, *Citizenship in the Community*, and *Family Life*.

## Good Citizenship

The role of citizen is complex even for adults. Our democratic nation is always addressing complex issues and presenting its citizens with difficult choices. Rights and freedoms of individuals need to be balanced against those of the majority. Consideration for the common good is an enduring issue. Often, our personal values play an important role in the decisions we make and the actions we take.

The following ideas may help you help your child:

1. **Model good citizenship.** This can be the most powerful assistance you can give a child.
2. **Encourage your child to express his ideas** on the issues related to the projects even if they differ from your own.
3. **Subscribe to newspapers or news magazines** and select articles of mutual interest to read and discuss together.
4. **Take your child with you to a PTA or PTO meeting, school board meeting, community hearing, or similar activity.**
5. **Discuss with your child about national holidays** and why they are important and celebrated.
6. **Check books out from the library** about the community, region, nation, or world.
7. **Visit historical places** during family vacations.
8. **Don't let racial, ethnic, or gender slurs go unnoticed.**

9. **Share family stories** with your child. Look through old photo albums or scrapbooks together.
10. **Help your child learn about people who live in other places.** We live in a global society.
11. **In the face of the many problems that plague our world, it is important that adults convey a sense of hope and a belief in the ability of human beings to solve problems.**

## The World Conservation Award



Earning the Cub Scout World Conservation Award is a great way for a boy to show he cares about his community and to learn about the environment. Requirements can be found in the *Cub Scout Leader Book* and in the *Wolf, Bear, and Webelos Scout* handbooks.

# Cub Scout Academics: Collecting



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_ 1. Begin a collection of at least 10 items that all have something in common. Label the items and title your collection.
- \_\_\_ 2. Display your collection at a pack or den meeting.
- \_\_\_ 3. Visit a show or museum that displays different collections.

### Academics Pin

Earn the Collecting belt loop and complete five of the following requirements:

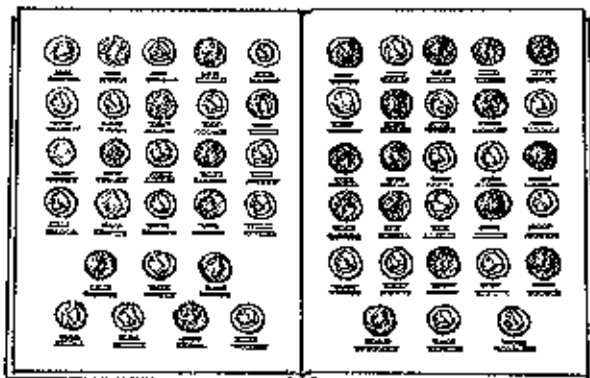
- \_\_\_ 1. Give a talk about your collection to someone other than your family. Give a description of your collection, including a short history. Explain how you got started and why you decided to collect what you do.
- \_\_\_ 2. Show how you preserve and display your collection. Explain any special precautions you must take including handling, cleaning, and storage. Note precautions for dampness, sunlight, or other weather conditions.
- \_\_\_ 3. Read a book about what you collect and then discuss it with your den or an adult family member.
- \_\_\_ 4. Start a new collection of at least 20 items. Label the items, and title your collection.
- \_\_\_ 5. Explain to your den or an adult family member what *numismatics* and *philately* mean.
- \_\_\_ 6. With your parent's or adult partner's permission, join a club of collectors who share your hobby. This club may be a group of your friends.
- \_\_\_ 7. Find out if there is a career that involves what you collect. Find out what kind of subjects you need to study to prepare for such a career.
- \_\_\_ 8. If you collect coins or stamps, make a list of different countries in your collection. Explain how to identify each country's issues. Make a list of "clues" that help you identify the origin.
- \_\_\_ 9. With an adult partner, visit an online auction and look for items you collect. Discuss what it tells you about the rarity and value of the things you collect.
- \_\_\_ 10. Create a method for organizing and keeping track of your collection. Use a computer if possible.
- \_\_\_ 11. Help a friend get started on a collection of his or her own.

## Resources

Check the reference section at your local library for information on collecting and a wide variety of things people collect. If you have access to the Internet, try using various search engines to look for the information you need. (Be sure to have your parent's or adult partner's permission first.)

Other resources might include collecting clubs and specialty shops in your area.

A field trip to a nearby museum can provide an excellent opportunity to learn more about what you collect.



**Coin folders are a great way to organize, catalog and display your coin collection.**

## Things Some People Collect

- Arrowheads
- Autographs
- Barbed wire
- Baseball or sports cards
- Books
- Bottle caps or bottles
- Butterflies and other insects
- Christmas ornaments
- Coins and stamps
- Dolls and plush animals
- Leaves
- Little or antique cars and toys
- Mugs and china
- Neckerchiefs
- Old tools
- Restaurant menus
- Rocks and minerals
- Scout patches
- Shells
- Spoons
- TV or movie posters
- Water samples

## Stamp Collecting for Beginners

Start as a general collector. You do not need to specialize until you have seen and handled a wide range of stamps.

Start with quantity and learn to appreciate good stamp design, town cancellations, color varieties, perforated initials, and the other attributes and differences that make stamps interesting.

Collect what interests you, and not what others tell you that real philatelists collect.

Display stamps in a book or case so that you and others can enjoy the stamps without damaging them.

Visit stamp exhibitions whenever you can. They will help to open your eyes to the wide world of philately.

## Numismatics

*Numismatics* is derived from the Greek word *numisma* ("coin knowledge") and today refers to the study and collecting of coins, paper currency, medals, tokens, and other similar monetary objects.

## Philately

*Philately* is the collection and study of postage and imprinted stamps. Philately is derived from two Greek words: *philos* ("loving") and *atelos* ("free of tax" or "paid"). Stamps are signs that the postage or tax has been paid.

# Cub Scout Academics: Communicating



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Tell a story or relate an incident to a group of people, such as your family, den, or members of your class.
- \_\_\_\_\_ 2. Write and send a letter to a friend or relative.
- \_\_\_\_\_ 3. Make a poster about something that interests you. Explain the poster to your den.

### Academics Pin

Earn the Communicating belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. Write an original poem or story.
- \_\_\_\_\_ 2. Keep a journal of daily activities for at least seven days.
- \_\_\_\_\_ 3. Listen to a news story on television or the radio. Discuss the information with an adult.
- \_\_\_\_\_ 4. Go to the library. Use the card catalog or computer reference system to find a book, and then check it out.
- \_\_\_\_\_ 5. Read a book that has been approved by your parent or teacher. Discuss the book with an adult.

- \_\_\_\_\_ 6. With a friend, develop a skill. Perform it at a Scout meeting, family meeting, or school event.
- \_\_\_\_\_ 7. Learn the alphabet in sign language and demonstrate it to your den or an adult family member by showing how to sign 10 words. (See page 56.)
- \_\_\_\_\_ 8. With an adult, use the Internet to search for information on a topic of interest to you.
- \_\_\_\_\_ 9. Watch three television commercials and discuss the information in them with your parent or den leader.
- \_\_\_\_\_ 10. Read the directions for a new game. Explain to a family member or friend how to play it.
- \_\_\_\_\_ 11. Learn about "reading" materials for people who have poor vision or who are blind. Tell your den or an adult family member about what you have learned.
- \_\_\_\_\_ 12. While traveling, make a list of road signs, animals, or license plates that you see. Tell your den or an adult family member about what you have learned.

## Resources

Check out your local and school library, as well as a local university or community college for resources on communicating.

### International Reading Association

800 Barksdale Road

P.O. Box 8139

Newark, DE 19714-8139

Toll-free phone: 800-336-7323

Fax: 302-731-1057

Web site: <http://www.reading.org>

### National Institute for Literacy (NIFL)

1775 I Street, NW, Suite 730

Washington, DC 20006-2401

Phone: 202-233-2025

Fax: 202-233-2050

Web site: <http://www.nifl.gov>

## Habits of Good Writers

- Decide on the topic you are going to write about.
- Brainstorm—think of what you are going to say about the topic.
- Make up a plan for how you are going to organize your ideas on the topic.
- Write down your ideas as clearly as you can.
- Reread your first draft to be sure you have said everything you wanted to say as clearly as possible.
- Make any changes so that your reader will understand exactly what you are trying to say.
- Edit your work for spelling, punctuation, and correct grammar.

## Habits of Good Readers

- Recognize the words on the page.
- Know the meanings of the words.
- Think about the ideas of the story.
- Use the information you already know to understand what you are reading.

## A Fistful of Words

1. Pick a page of a book or magazine you want to read.
2. Look at each word on that page. Begin to make a “fist” of words you don’t recognize. For each word that you don’t recognize, bend one of your fingers down.
3. If all five fingers are down, that is, if you have made a fist before you come to the last word on that page, then you have a “fistful of words” that you do not know. That is a sign that you probably will need some help in reading that book.

## Sources for Children With Reading or Learning Disabilities

### National Library Service for the Blind and Physically Handicapped (NLS)

Library of Congress

Washington, DC 20542

Phone: 202-707-5100

Fax: 202-707-0712

Web site: <http://lcweb.loc.gov/nls>

### Office of Special Education Programs (OSEP)

U.S. Department of Education

400 Maryland Ave., SW

Washington, DC 20202-7100

Phone: 202-245-7459

Web site: <http://www.ed.gov/about/offices/list/osers/osep/index.html>

### Learning Disabilities Association of America

4156 Library Road

Pittsburgh, PA 15234-1349

Phone: 412-341-1515 and 412-341-8077

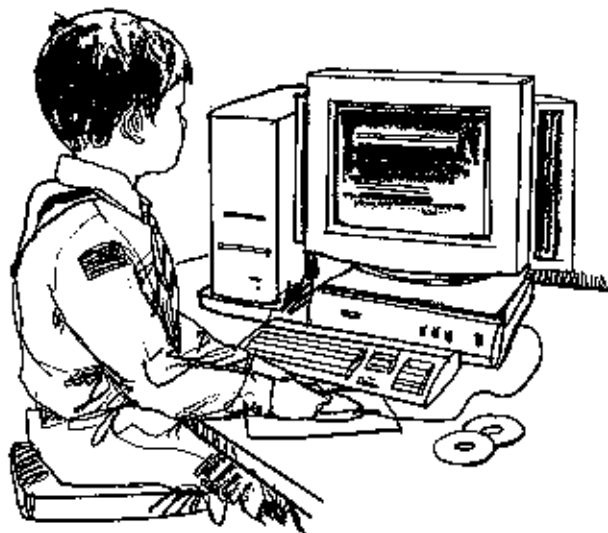
Fax: 412-344-0224

Web site: <http://www.ldanatl.org>

### American Sign Language

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

# Cub Scout Academics: Computers



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners.

Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_ 1. Explain these parts of a personal computer: central processing unit (CPU), monitor, keyboard, mouse, modem, and printer.
- \_\_\_ 2. Demonstrate how to start up and shut down a personal computer properly.
- \_\_\_ 3. Use your computer to prepare and print a document.

### Academics Pin

Earn the Computers belt loop and complete five of the following requirements:

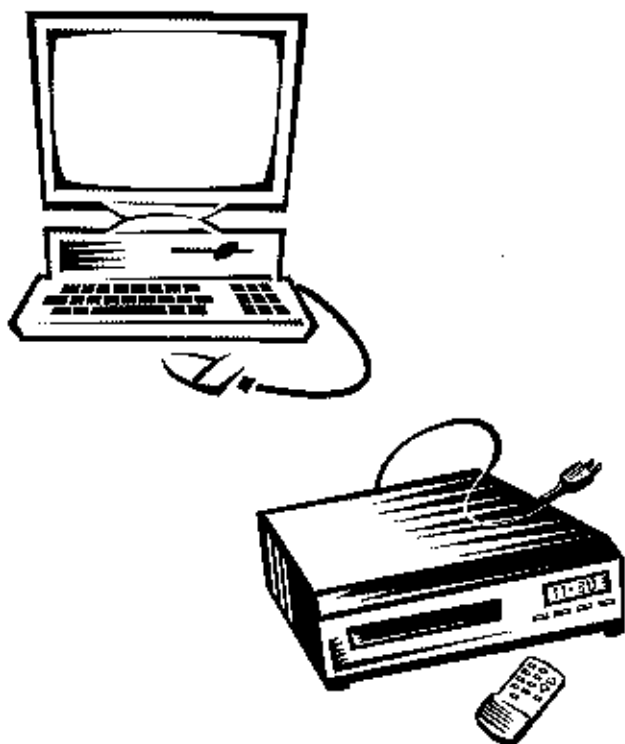
- \_\_\_ 1. Use a computer to prepare a report on a subject of interest to you. Share it with your den.
- \_\_\_ 2. Make a list of 10 devices that can be found in the home that use a computer chip to function.
- \_\_\_ 3. Use a computer to maintain a balance sheet of your earnings or allowance for four weeks.
- \_\_\_ 4. Use a spreadsheet program to organize some information.
- \_\_\_ 5. Use an illustration, drawing, or painting program to create a picture.
- \_\_\_ 6. Use a computer to prepare a thank-you letter to someone.
- \_\_\_ 7. With your parent's or adult partner's permission, log on to the Internet. Visit the Boy Scouts of America Web site: <http://www.scouting.org>.
- \_\_\_ 8. Discuss personal safety rules you should pay attention to while using the Internet.
- \_\_\_ 9. Practice a new computer game for two weeks. Demonstrate an improvement in your scores.
- \_\_\_ 10. With your parent's or adult partner's permission, correspond with a friend via e-mail. Have at least five e-mail replies from your friend.
- \_\_\_ 11. Visit a local business or government agency that uses a mainframe computer to handle its business. Explain how computers save the company time and money in carrying out its work.

## Resources

Computers have become so important in our lives that information on computers is available everywhere. Contact your local library, use the Internet (with your parent's or adult partner's permission), visit local computer stores or bookstores, or visit a computer department at a college or university. Online, use a search engine and key words and phrases to find computer topics that interest you.

## Parent Guide

1. Be involved with your children and their computer use. Talk to them, establish rules, and make it known that violation of the rules can lead to a suspension of their online privileges.
2. Don't use the computer as an "electronic babysitter." Stay aware of and be involved with your child's online activities. Put the computer in a family room rather than in a child's bedroom.
3. Commercial online services have parental-control or "blocking" features that allow parents to keep children out of certain areas. Internet Web browsers are developing controls, and there are also software packages designed to block Internet sites such as Internet newsgroups, specific Web sites, file libraries, and chat areas known to contain sexually explicit material. Some software packages give parents the option of choosing which types of sites to block.



## Rules for Online Safety

- I will talk with my parents so that we can set up rules for going online. We will decide on the time of day that I can be online, the length of time I can be online, and appropriate Web sites for me to visit. If I want to visit other Web sites, I will get my parents' permission first.
- While I'm online, I will not give out personal information such as my address, telephone number, parents' work addresses/telephone numbers, or the name and location of my school without my parents' permission.
- I will tell my parents right away if I come across any information that makes me feel uncomfortable.
- I will not respond to any messages that are mean or in any way make me feel uncomfortable. It is not my fault if I get a message like that. If I do, I will tell my parents right away so that they can contact the online service.
- I will never agree to get together with someone I "meet" online without first checking with my parents. If my parents agree to the meeting, I will be sure that it is in a public place, and I will bring a parent or my adult guardian along.
- While I'm online, I will never send a person my picture or anything else without first checking with my parents.

## Home Devices That Have Computer Chips

Computer chips are everywhere—even in your television, VCR, radio, videocassette recorder, CD player, digital clock, electric razor, answering machine, icemaker, microwave oven, coffee maker, garage door opener, security system, sprinkler system, and many other new appliances.

# Cub Scout Academics: Disabilities Awareness



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners.

Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Visit with a friend, family member, classmate, or other person with disabilities. Find out what this person enjoys and what this person finds difficult.
- \_\_\_\_\_ 2. Attend a disabilities event such as an Easter Seals event, Special Olympics, a performance with sign language interpretation, an activity with Guiding Eyes dogs, or a wheelchair race. Tell your adult leader what you thought about the experience.
- \_\_\_\_\_ 3. Make a display about one or more disabilities. It can include physical, learning, or mental challenges. Share the display at a pack meeting.

### Academics Pin

Earn the Disabilities Awareness belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. People with disabilities move around in different ways such as crutches, scooters, and wheelchairs. Explain the differences. With an adult's supervision and permission, try to safely use one.

- \_\_\_\_\_ 2. Using sign language, demonstrate the Cub Scout Promise and motto.
- \_\_\_\_\_ 3. Read a book about a person with a disability.
- \_\_\_\_\_ 4. Explain how your school helps students with disabilities (elevators, ramps, small classes, special tools and equipment, specialized teachers).
- \_\_\_\_\_ 5. Describe one of the following and its purpose: occupational therapy, speech therapy, or physical therapy. Visit with a person who works in one of these fields and learn about his or her position.
- \_\_\_\_\_ 6. Read about a famous person who has been physically or mentally challenged. Report what you learned to your den or family.
- \_\_\_\_\_ 7. For two one-hour periods, and with adult supervision, go about your normal routine doing chores, watching television, studying, etc. Change your abilities by using one of these experiences, then share what you learned with your den.
  - Hearing impairment—Muffle your ears with earmuffs or bandages.
  - Sight impairment—Blindfold one or both eyes.
  - Physical impairment—Bind an arm or leg so that it cannot be used.



## Resources

Your local library, schools, and the Internet are all excellent sources of information about disabilities awareness. These organizations and agencies may also be helpful. Be sure you have your parent's or adult partner's permission before you go online.

### **American Association of People With Disabilities**

Toll-free phone: 800-840-8844

Web site: <http://www.aapd.com>

### **American Foundation for the Blind**

Toll-free phone: 800-232-5463

Web site: <http://www.afb.org>

### **The Arc of the United States**

Phone: 301-565-3842

Toll-free phone: 800-433-5255

Web site: <http://www.thearc.org>

### **Autism Society of America**

Phone: 301-657-0881

Toll-free phone: 800-328-8476

Web site: <http://www.autism-society.org>

### **Autism Speaks**

Phone: 212-252-8584

Web site: <http://www.autismspeaks.org>

### **Easter Seals**

Toll-free phone: 800-221-6827

Web site: <http://www.easterseals.com>

### **Federation for Children With Special Needs**

Phone: 617-236-7210

Web site: <http://www.fcsn.org>

### **Guide Dogs for the Blind**

Toll-free phone: 800-295-4050

Web site: <http://www.guidedogs.com>

### **International Dyslexia Association**

Phone: 410-296-0232

Web site: <http://www.interdys.org>

### **Muscular Dystrophy Association**

Toll-free phone: 800-572-1717

Web site: <http://www.mda.org>

### **National Alliance on Mental Illness**

Phone: 703-524-7600

Web site: <http://www.nami.org>

### **National Association of the Deaf**

Phone: 301-587-1788

TTY phone: 301-587-1789

Web site: <http://www.nad.org>

### **National Center for Learning Disabilities**

Phone: 212-545-7510

Toll-free phone: 888-575-7373

Web site: <http://www.ncl.org>

### **National Dissemination Center for Children With Disabilities**

Toll-free phone: 800-695-0285

Web site: <http://www.nichey.org>

### **Special Olympics International**

Toll-free phone: 800-700-8585

Web site: <http://www.specialolympics.org>

### **United Cerebral Palsy**

Toll-free phone: 800-872-5827

Web site: <http://www.ucp.org>

- Speaking impairment—Cover your mouth or do not speak.

- Choose an impairment of your own that is approved by an adult.

8. Look at a catalog and find three items that could help a person with disabilities in their daily life. Explain how each item would help the individual.
9. Volunteer and help someone with disabilities in school, sports or another supervised activity.
10. Visit a nursing home or elderly person and help someone with a meal.
11. Talk to someone who works with people who have disabilities. Ask what the person's position is like and how he or she helps people with disabilities.

**Occupational therapy:** Therapy that uses creative activities in rehabilitation (therapy to improve upon a lost or weakened function) related to physical, mental, and emotional disabilities.

**Speech therapy:** Therapy that uses exercises and audiovisual aids in building new speech habits.

**Physical therapy:** Therapy that uses exercise, massage, hydrotherapy (water therapy), etc., for the treatment of physical disabilities as an alternative to treatment such as medicine or surgery.

# Cub Scout Academics: Family Travel



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

1. Make a list of things you would take on a three-day trip with your family, then pack these items in a bag or suitcase.
2. With an adult's help, figure out the cost and miles to complete a trip to a place of interest using the family car or public transportation.
3. Research at least five places to visit during a trip to a place of interest. Explain what you learned to your family.

### Academics Pin

Earn the Family Travel belt loop and complete five of the following requirements:

1. Go on a trip with your family that includes at least one overnight stay. Keep a journal of your trip and then share it with your den leader.
2. Play a travel game while traveling in a car.
3. With an adult, review the *Guide to Safe Scouting*, chapter XII, "Transportation." Then make a list

of safety rules to follow when traveling in the car or while using public transportation such as a bus, plane, boat, and train. Share the list with your den.

4. With the help of a parent or adult partner, use a computer to look up an airfare from your closest airport to a city in a foreign country. Calculate the total travel time, the day and time you will leave your home, and the day and time you will arrive at your destination.
5. Visit a travel agent office or look up a travel Web site.
6. Using pictures, explain to a family member how people's forms of transportation have changed in the last 300 years.
7. Visit with an adult who has driven in a different country. List five things that the adult found to be very different from driving in the United States.
8. Make a list of occupations that people have that are related to traveling. Describe the position you would like to try. Explain to a family member why you chose that occupation.

## Resources

Your local library, schools, and the Internet all are excellent sources for travel information.

- To find out how to apply for a U.S. passport, visit [http://travel.state.gov/passport/passport\\_1738.html](http://travel.state.gov/passport/passport_1738.html).
- To convert U.S. currency to another currency, visit <http://finance.yahoo.com/currency?u>.
- To find a map of a place of interest, visit <http://maps.google.com/maps> or <http://www.mapquest.com>.
- To find out which side of the road drivers in other countries drive on, visit <http://www.brianlucas.ca/roadside>.
- To learn what you can and can't take on an airplane, visit <http://www.tsa.gov/travelers/index.shtml>.
- To find travel games for kids, visit <http://www.kidsturncentral.com/summer/travelgames.htm>.

## Car Safety Rules

- Be sure the vehicle is in good repair.
- Always wear a seatbelt.
- Do not distract the driver.
- When stopping, use the buddy system.
- Leave nothing valuable in the car.
- Do not exit the car on the traffic side.
- Do a head count before starting out again.

9. Learn how to apply for a U.S. passport. With adult supervision, read an actual application and complete as much of the form as you can.

10. Change \$1,000 U.S. dollars into pounds, Euros, or pesos.

11. With an adult, conduct a motor vehicle inspection of the car designated for traveling. Use the checklist provided in the *Guide to Safe Scouting* appendix, called "Annual Motor Vehicle Checklist." The appendix to the *Guide* can be found at [www.scouting.org/scoutsources/HealthandSafety/GSS/gssax.aspx](http://www.scouting.org/scoutsources/HealthandSafety/GSS/gssax.aspx).

## Books for Travel

*Everything Kids' Travel Activity Book*, by Erik A. Hanson and Jeanne Hanson. Adams Media, 2002.

*Frommer's 500 Places to Take Your Kids Before They Grow Up*, by Holly Hughes. Frommer's, 2006.

*Kid's Trip Diary*, by Loris Bree and Marlin Bree. Marlor Press, 2007.

*Oh, the Places You'll Go!* by Dr. Seuss. Random House Books for Young Readers, 1993.

*Our 50 States: A Family Adventure Across America*, by Lynne Cheney. Simon & Schuster Children's Publishing, 2006.

## Hotel Safety Rules

- Know how to call 911.
- Know where the fire exits are located.
- Sleep with a light next to your bed.
- Never answer the door unless you know who is on the other side and you have your parent's permission.

## Travel Games

**Color Match.** Choose a color and watch out the window for objects of the same color. Try to find ten objects before choosing a new color.

**Alphabet Game.** Using the alphabet, starting with A, watch out the window for road signs, billboards, store signs, etc., that begin with the call letter. Once you find an "A," move on to "B," and so on until you have completed the alphabet.

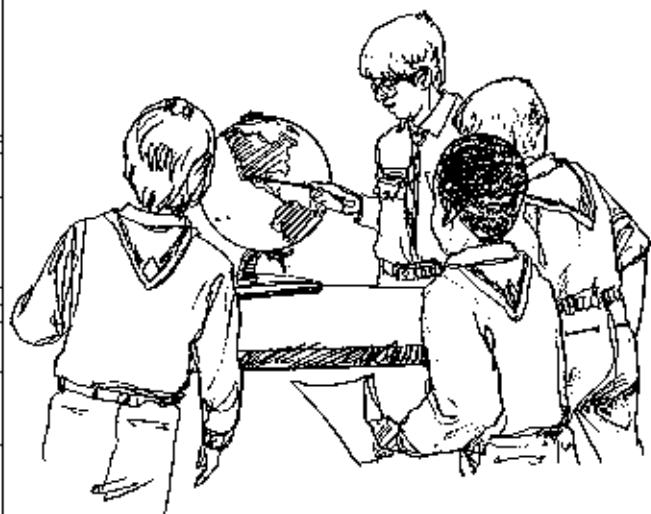
**Number Game.** Similar to the alphabet game, but using numbers. Watch out the window for numbers from 1 through 9, in order.

**I See It!** Make a list of things to watch for during the drive. Items could be put on a bingo card for kids to color in the square when the item is seen. The list could include animals, trees, plants, mountains, fences, buildings, billboards, schools, places of worship, different types vehicles, lakes, railroad signs or tracks, etc.

**Tic-Tac-Toe.** Print out lots of tic-tac-toe sheets for everyone to play!

**License Plate Game.** See how many different license plates you can find. Keep track of the states.

# Cub Scout Academics: Geography



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners.

Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Draw a map of your neighborhood. Show natural and artificial features. Include a key or legend of map symbols.
- \_\_\_\_\_ 2. Learn about the physical geography of your community. Identify the major landforms within 100 miles. Discuss with an adult what you learned.
- \_\_\_\_\_ 3. Use a world globe or map to locate the continents, the oceans, the equator, and the northern and southern hemispheres. Learn how longitude and latitude lines are used to locate a site.

### Academics Pin

Earn the Geography belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. Make a 3-D model of an imaginary place. Include five different landforms, such as mountains, valleys, lakes, rivers, plateaus, and plains.
- \_\_\_\_\_ 2. List 10 cities around the world. Calculate the time it is in each city when it is noon in your town.
- \_\_\_\_\_ 3. Find the company's location on the wrapper or label of 10 products used in your home, such

as food, clothing, toys, and appliances. Use a world map or atlas to find each location.

- \_\_\_\_\_ 4. On a map, trace the routes of some famous explorers. Show the map to your den or family.
- \_\_\_\_\_ 5. On a United States or world map, mark where your family members and ancestors were born.
- \_\_\_\_\_ 6. Keep a map record of the travels of your favorite professional sports team for one month.
- \_\_\_\_\_ 7. Choose one: (a) Read a book in which geography plays an important part; (b) On a Web site with satellite views of Earth, identify at least five locations, including your home address or a nearby building. Be sure you have your parent's or adult partner's permission first.
- \_\_\_\_\_ 8. Take part in a geography bee or fair in your pack, school, or community.
- \_\_\_\_\_ 9. Choose a country and make a travel poster for it.
- \_\_\_\_\_ 10. Play a geography-based board game or computer game. Tell an adult some facts you learned about a place that was part of the game.
- \_\_\_\_\_ 11. Draw or make a map of your state. Include rivers, mountain ranges, state parks, and cities. Include a key or legend of map symbols.

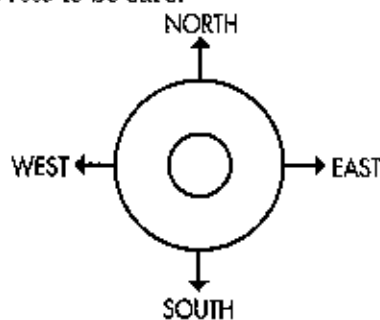
## Resources

- Library
- Encyclopædia, atlas, almanac
- Tourist information centers
- Auto clubs, travel clubs, travel agents
- Genealogical societies
- Historic societies and museums
- Cultural associations
- College geography departments
- Foreign embassies
- Computer programs and the Internet (with your parent's or adult partner's permission)

## Elements of a Good Map

Cartography is the science and art of making maps. When you are making or reading a map, check for the following basic information:

1. **Title, author, and date.** The title can tell you whether the map will give the information for which you are looking. The date and author will give you clues as to the accuracy of the map (i.e., an older map may not be very up-to-date).
2. **Scale.** Scale is the system that reduces the land and oceans to sizes that fit on paper. On maps of large areas, the scale is usually measured in miles (or kilometers) per inch (or centimeter). Some maps might measure small areas in feet per inch.
3. **Directions.** A map should show the cardinal (main) directions of north, south, east, and west. Most maps have the north at the top, but it is wise to check the *compass rose* to be sure.



**Compass rose**

4. **Key or legend.** Maps usually use colors or symbols to represent features, such as roads, buildings, parks, lakes, rivers, or mountains. The only color most cartographers agree about is using blue for water features.

5. **Projection.** A three-dimensional globe is the most accurate map of the earth. Cartographers must cut, stretch, and distort some parts of the earth to get it to appear flat on paper. Some of these *projections* are better than others. To see this effect, compare the size of Greenland as represented on a globe and on a flat map.

## Finding Longitude and Latitude

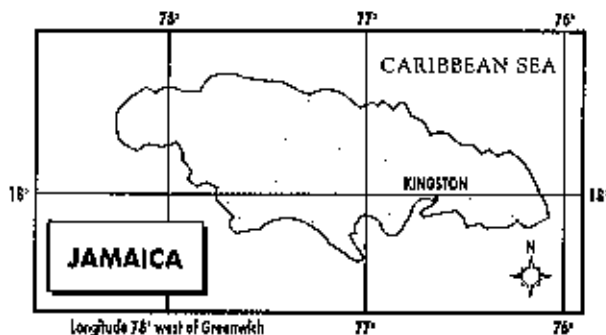
On most maps you will see lines that run east and west parallel to the equator, and other lines that run north and south between the North and South Poles.

The east-west lines (called *parallels* because they stay the same distance apart) are lines of *latitude*. They measure position north or south of the earth's equator.

The lines that connect the poles are lines of *longitude*. They are never parallel because their distance apart varies. Also called *meridians*, they measure position east or west of the prime meridian, which passes through Greenwich, England.

**Example:** Imagine that you are listening to a weather report about a hurricane. Many times, weather reporters give the coordinates of the hurricane so that people can follow the storm's movements on their map at home.

If the coordinates for a hurricane were given as 18 degrees north latitude and 77 degrees west longitude, you could find the hurricane on a map. Find the parallel of latitude marked 18 degrees north of the equator, and the line of longitude marked 77 degrees west of Greenwich, and follow the two lines until they meet. These coordinates would put the storm near Kingston, Jamaica, in the Caribbean Sea. Try this for yourself on a map or globe.



# Cub Scout Academics: Geology



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners.

Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Explain to your den or an adult family member what *geology* means.
- \_\_\_\_\_ 2. Collect samples of igneous, sedimentary, and metamorphic rocks. Explain how each was formed.
- \_\_\_\_\_ 3. Collect samples of three minerals. Explain to your family or den what a mineral is and show and tell about the minerals you collected.

### Academics Pin

Earn the Geology belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. Make a plaster cast of a fossil.
- \_\_\_\_\_ 2. Make a special collection of rocks and minerals that illustrates the hardness scale.
- \_\_\_\_\_ 3. Give examples of sedimentary, igneous, and metamorphic rocks.
- \_\_\_\_\_ 4. Gather several different types of rocks. Compare them and put them in groups according to physical properties such as color, texture, luster, hardness, or crystals.
- \_\_\_\_\_ 5. Describe the effects of wind, water, and ice on the landscape.
- \_\_\_\_\_ 6. Make "pet rocks" using rocks, paint, and glue-on eyes. Tell a creative story about your pet rocks.
- \_\_\_\_\_ 7. Draw a diagram showing different types of volcanoes or draw a diagram that labels the different parts of a volcano.
- \_\_\_\_\_ 8. Make a crystal garden.
- \_\_\_\_\_ 9. Make a collection of five different fossils and identify them to the best of your ability.
- \_\_\_\_\_ 10. Make a poster or display showing 10 everyday products that contain or use rocks or minerals.
- \_\_\_\_\_ 11. Visit a mine, oil or gas field, gravel pit, stone quarry, or similar area of special interest related to geology.
- \_\_\_\_\_ 12. With your parent or adult partner, visit with a geologist. Find out how he or she prepared for the position. Discuss other careers related to geology.
- \_\_\_\_\_ 13. Draw the inside of a cave showing the difference between stalactites and stalagmites.

## Resources

Check the children's section at your local library for information on geology. If you have access to the Internet, try using various search engines to look for the information you need. (Be sure you have your parent's or adult partner's permission first.)

A field trip to a museum can provide an excellent hands-on experience with rocks and minerals in your local community.

## Mohs Hardness Scale

Hardness is identified numerically by comparison to standard minerals on the *Mohs Scale*, from 1 (softest) to 10 (hardest):

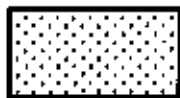
- |             |               |
|-------------|---------------|
| 1. Talc     | 6. Orthoclase |
| 2. Gypsum   | 7. Quartz     |
| 3. Calcite  | 8. Topaz      |
| 4. Fluorite | 9. Corundum   |
| 5. Apatite  | 10. Diamond   |

A mineral of a given hardness will scratch a mineral of a lower number. With a systematic approach, you can use minerals of known hardness to determine the relative hardness of any other mineral. There are a few handy objects that also fit in this scale. A fingernail is 2.5, a penny is 3, a knife blade is 5.5, glass is 5.5, and a steel file is 6.5.

## Three Kinds of Rocks

### Sedimentary Rocks

For thousands, even millions of years, little pieces of our Earth have been eroded—broken down and worn away by wind and water. These little bits of earth are washed downstream, where they settle to the bottom of the rivers, lakes, and oceans. Layer after layer of eroded earth is deposited on top of each. These layers are pressed down more and more through time, until the bottom layers slowly turn into rock.



**Sandstone**



**Limestone**



**Shale**



**Gypsum**



**Granite**



**Basalt**



**Pumice**



**Obsidian**

## Igneous Rocks

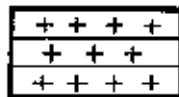
Igneous rocks are called fire rocks and are formed either underground or above ground. Underground, they are formed when the melted rock, called magma, deep within the earth becomes trapped in small pockets. As these pockets of magma cool slowly underground, the magma becomes igneous rocks.

Igneous rocks are also formed when volcanoes erupt, causing the magma to rise above the earth's surface. When magma appears above the earth, it is called lava. Igneous rocks are formed as the lava cools above ground.

## Metamorphic Rocks

Metamorphic rocks are rocks that have "morphed" into another kind of rock.

These rocks were once igneous or sedimentary rocks. How do sedimentary and igneous rocks change? The rocks are under tons and tons of pressure, which fosters heat build-up, and this causes them to soften and change.



**Marble**



**Schist**



**Gneiss**



**Slate**

## Items Made From Rocks and Minerals

Some everyday items that are made from or consist of rocks or minerals include jewelry, table salt, chalk, pencil lead, coins, wire, cans, safety pins, scissors, chewing gum wrappers, roads, and glass. There are many, many others.

## Crystal Garden

- 6 tablespoons of water
- 1 tablespoon of ammonia
- 6 tablespoons of laundry bluing
- 6 teaspoons of salt
- 6 pieces of charcoal—the kind used for outdoor cooking

Mix the water, ammonia, bluing, and salt in a bowl. Put the charcoal in a pie pan. Pour the liquid over the pieces of charcoal. Put the pie pan in a warm place where the water will evaporate quickly. When the water has evaporated, a "garden" of crystals will have grown!

# Cub Scout Academics: Good Manners



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_ 1. Make a poster that lists five good manners that you want to practice. Share your poster with your den or family.
- \_\_\_ 2. Introduce two people correctly and politely. Be sure that one of them is an adult.
- \_\_\_ 3. Write a thank-you note to someone who has given you something or done something nice for you.

### Academics Pin

Earn the Good Manners belt loop and complete five of the following requirements:

- \_\_\_ 1. Meet one new person, shake hands properly, and introduce yourself. Extend your hand, grip the person's hand firmly, and gently shake hands.
- \_\_\_ 2. Talk with your family about polite language. Include "please," "you're welcome," "excuse me," "yes, sir," "no, ma'am," and so on in your talk.
- \_\_\_ 3. Explain to your den or family how good manners can help you now and as you get older. Copy the actions of someone you know who has good manners.
- \_\_\_ 4. Go over table manners with your family. Eat a meal together where the table is set correctly and everyone uses good table manners.
- \_\_\_ 5. With an adult, discuss what foods are proper to eat with your fingers. Practice eating some of these foods the right way.
- \_\_\_ 6. In your den or with your family, practice using good phone manners.
- \_\_\_ 7. Explain how treating things that belong to other people with respect is a part of having good manners. Show three examples of how you can show respect for others.
- \_\_\_ 8. Talk with your friends or family members about following the rules and having good sportsmanship when playing games. Then play a game with your friends or family members. After playing the game, tell how you showed good manners.



## Resources

*Emily Post's the Guide to Good Manners for Kids*, by Peggy Post and Cindy Post Senning. HarperCollins, 2004.

*Manners Can Be Fun*, by Munro Leaf. Universe Publishing, 2004.

*My Manners Matter: A First Look at Being Polite*, by Pat Thomas. Barron's Educational Series, 2006.

*Social Smarts: Manners for Today's Kids*, by Elizabeth James and Carol Barkin. Sandpiper, 1996.

*What Do You Know About Manners?* by Cynthia MacGregor. Meadowbrook, 2000.

### Manners for Kids and Parents

Web site: <http://life.familyeducation.com/manners-and-values/parenting/34452.html>

9. With your family or den, list five rules to remember in being polite and respectful when in a public place. Go to the public place and practice the rules. Explain how the rules helped you to have good manners.

10. Demonstrate the proper outfit to wear at school, at play, and at a social event.

## Good Manners Means . . .

- Speaking politely
- Using good telephone etiquette
- Not interrupting others when they are speaking
- Giving polite introductions
- Eating properly
- Respecting others' things
- Respecting others' privacy
- Saying "please" and "thank you"
- Writing thank-you notes

## Manners for Cub Scouts

- Wait your turn in line.
- Do not call people names that are unkind or rude.
- Always greet people politely.
- Clean up after yourself, whether you are at home or somewhere else.
- Practice good sportsmanship and play fair.
- Take compliments courteously.
- When entering or exiting doors, elevators, buildings, or rooms, allow others to enter or exit before you do so. Hold the door or elevator open for others.
- Be respectful to others by using polite language.

## Basic Table Manners

- Use a utensil unless the food is meant to be eaten with fingers.
- Always say thank you when served something.
- Wait until everyone is served before eating.
- Eat slowly. Don't stuff your mouth full of food.
- Chew with your mouth closed, and don't speak while you have food in your mouth.
- When eating a roll, break off a piece of bread before buttering.
- Ask for an item to be passed to you; never reach over someone's plate for something.
- Always place your napkin on your lap, and use it to dab your mouth clean.
- Do not pick anything out of your teeth.



**Proper table setting placement**

# Cub Scout Academics: Heritages



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Talk with members of your family about your family heritage: its history, traditions, and culture.
- \_\_\_\_\_ 2. Make a poster that shows the origins of your ancestors. Share it with your den or other group.
- \_\_\_\_\_ 3. Draw a family tree showing members of your family for three generations.

### Academics Pin

Earn the Heritages belt loop and complete five of the following requirements:

- \_\_\_\_\_ 4. Learn 20 words in a language other than your native language.
- \_\_\_\_\_ 5. Interview a grandparent or other family elder about what it was like when he or she was growing up.
- \_\_\_\_\_ 6. Work with a parent or adult partner to organize family photographs in a photo album.
- \_\_\_\_\_ 7. Visit a genealogy library and talk with the librarian about how to trace family records.  
*Variation:* Access a genealogy Web site and learn how to use it to find out information about ancestors.
- \_\_\_\_\_ 8. Make an article of clothing, a toy, or a tool that your ancestors used. Show it to your den.
- \_\_\_\_\_ 9. Help your parent or adult partner prepare one of your family's traditional food dishes.
- \_\_\_\_\_ 10. Learn about the origin of your first, middle, or last name. Tell your den or an adult family member about what you learned.

## Resources

At your local library or schools, look for books about different cultures, including nonfiction and books of stories from other lands.

Visit local cultural and historical museums and centers. Invite guests from other cultures to visit your den and talk with the boys about their heritage.

*Boy's Life* magazine can also be an excellent source of information and stories about other cultures.

## A Positive Attitude About Culture

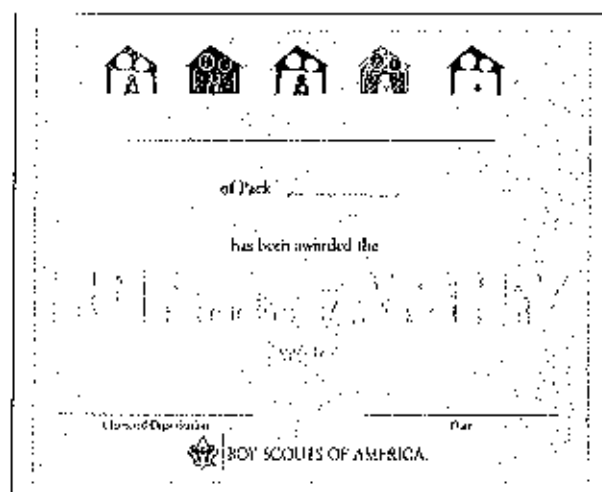
Positive, flexible attitudes toward other people are rooted in strong, positive images of ourselves. Self-assured children are not threatened by differences. They remain open to the new experiences that differences make possible. Self-confident children learn to be skeptical of negative cultural myths about other people. They make up their own minds about people as *individuals* rather than as members of a stereotypical category.

Encourage and help your child find out about his family history. You will have the opportunity to be part of his adventure as he explores his roots and his heritage. You can help him find family pictures, record family stories told by relatives, and visit libraries, county archives, newspaper files, or cemeteries where family history information might be found.

Help him organize his family story. Help him when he has questions about the customs or traditions of other cultures he encounters in his den or classroom. Help him prepare his family story for exhibit at the pack heritages celebration.

Enjoy the time you spend together. Seeing your family heritage through your child's eyes can be among the most satisfying things you'll do.

## The BSA Family Program



Earning the BSA Family Award is an excellent way to learn more about your family's heritage. Requirements can be found in the *BSA Family Book* (No. 33012). Your family can earn a Family Program certificate; Cub Scouts can earn a patch; and family members can earn the BSA Family pin.



# Cub Scout Academics: Languages and Culture



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. With your parent's or adult partner's permission, talk with someone who grew up in a different country than you did. Find out what it was like and how it is different from your experience.
- \_\_\_\_\_ 2. Learn 10 words that are in a different language than your own.
- \_\_\_\_\_ 3. Play two games that originated in another country or culture.

### Academics Pin

Earn the Language and Culture belt loop and complete seven of the following requirements:

- \_\_\_\_\_ 1. Earn the BSA Interpreter Strip.
- \_\_\_\_\_ 2. Write the numbers 1-10 in Chinese or another number system other than the one we normally use (we use the *Arabic* system).
- \_\_\_\_\_ 3. Visit an embassy, consulate, or *chargé d'affaires* for another country.
- \_\_\_\_\_ 4. Make a display of stamps or postcards of another country. Explain the importance or symbolism of the things depicted to that country's culture.

- \_\_\_\_\_ 5. Learn 30 words in a language other than your own. Practice saying these words with your den or an adult family member.
- \_\_\_\_\_ 6. Learn a song in another country's language. Sing the song for your den or an adult family member, and then tell what the words mean.
- \_\_\_\_\_ 7. Say five words in American Sign Language. One of these words could be your first name.
- \_\_\_\_\_ 8. Visit a restaurant that specializes in recipes from another country.
- \_\_\_\_\_ 9. Watch a TV show or movie in a foreign language. Tell how easy or difficult it was to understand what was happening.
- \_\_\_\_\_ 10. With your parent's or adult partner's permission, interview an interpreter. Find out what his or her job is like.
- \_\_\_\_\_ 11. Make a list of 30 things around your home that were made in another country.
- \_\_\_\_\_ 12. Read a book or story about an immigrant to the United States.

If the Scout's first language is not English, then English may be used to satisfy the appropriate requirements.

## Resources

Local cultural societies can be an excellent resource for information and contacts about their culture and language. Libraries and museums are also excellent sources of information, along with the Internet. (Be sure you have your parent's or adult partner's permission first.) These organizations are advocates of early-age language programs:

### Interpreter Strip Requirements

Go to <http://www.scouting.org/scoutsource/Media/InsigniaGuide/05E.aspx> to find a link to interpreter strip requirements.

### Advocates for Language Learning

P.O. Box 4962  
Culver City, CA 90231  
Phone: 310-398-4103

### American Sign Language

<http://www.lifeprint.com>

## Amazing Language Facts

- There are more than 2,700 languages in the world. In addition, there are more than 7,000 dialects. A dialect is a regional variety of a language that has different pronunciation, vocabulary, or meaning of words.
- The most difficult language to learn is Basque, which is spoken in northwestern Spain and southwestern France. It is not related to any other language in the world.
- All pilots on international flights identify themselves in English.
- The language in which a government conducts business is the official language of that country.
- More than a thousand different languages are spoken on the continent of Africa.

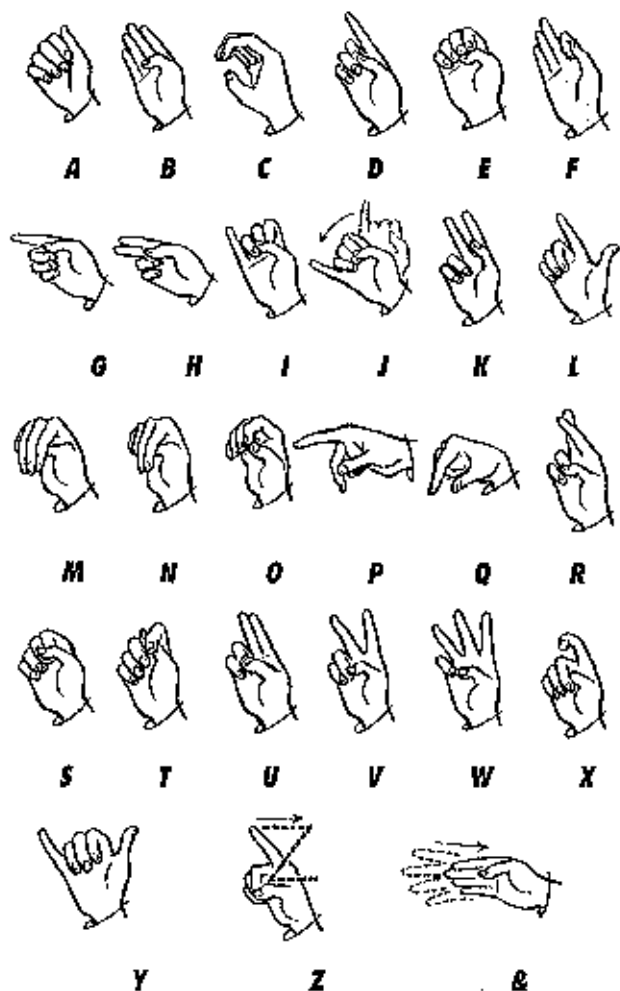
## Saying "Hello" or "Good Day"

Spanish	Hola
German	Guten Tag
French	Bonjour
Japanese	Konichiwa
Chinese	Ni hao
Portuguese	Bom dia
Hawaiian	Aloha
Italian	Buon giorno
Arabic	Al salaam a'alaykum
Thai	sa-wa DEE Krab (boy)
Russian	Zdravstvuite
Tagalog	Magandang tanghali po
Turkish	Merhaba
Indonesian	Selamat pagi
Greek	Kalimera

## Writing Numbers in Japanese

1	一	5	五	9	九
2	二	6	六	10	十
3	三	7	七		
4	四	8	八		

## American Sign Language



# Cub Scout Academics: Map and Compass



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_ 1. Show how to orient a map. Find three landmarks on the map
- \_\_\_ 2. Explain how a compass works.
- \_\_\_ 3. Draw a map of your neighborhood. Label the streets and plot the route you take to get to a place that you often visit.

### Academics Pin

Earn the Map and Compass belt loop and complete five of the following requirements:

- \_\_\_ 1. Explain to your den or an adult family member what *cartography* means.
- \_\_\_ 2. Make a poster showing 10 map symbols and their meaning.
- \_\_\_ 3. Read a book or story about a famous explorer or navigator. Tell your den or family what you learned.
- \_\_\_ 4. Make a simple compass with a magnet and pin.
- \_\_\_ 5. Explain the difference between latitude and longitude and show them on a map or globe.
- \_\_\_ 6. Draw a compass rose for a map. Label north, south, east, and west.
- \_\_\_ 7. Study a blank map of the United States of America. Label your state, and the states that share its boundary lines.
- \_\_\_ 8. In the field, show how to take a compass bearing and how to follow it.
- \_\_\_ 9. Show how to measure distances, using a scale on a map legend.
- \_\_\_ 10. Measure your pace. Then layout a simple compass course for your den to try.
- \_\_\_ 11. Using a road map, determine how many miles it is between two major cities or familiar destinations.
- \_\_\_ 12. Explain what the different map colors can mean on a map.

## Resources

Check your local library for information on maps and compasses. If you have access to the Internet, try using various search engines to look for the information you need. (Be sure you have your parent's or adult partner's permission first.)

A field trip to a nearby museum or the local U.S. Geological Survey office may provide an excellent hands-on experience in your local community.

## Map Colors

- Black—Artificial/human-made features
- Blue—Water features
- Green—Wooded areas
- Brown—Contour lines
- Red—Important roads, range lines
- Red tint—Urban areas
- Purple tint—Revisions since last map edition

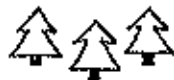
## Map symbols



Lake



River



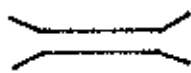
Forest



Factory



Park



Bridge



Picnic area



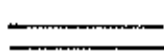
Hospital



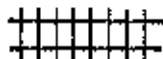
School



Town



Road



Railroad



Capital city



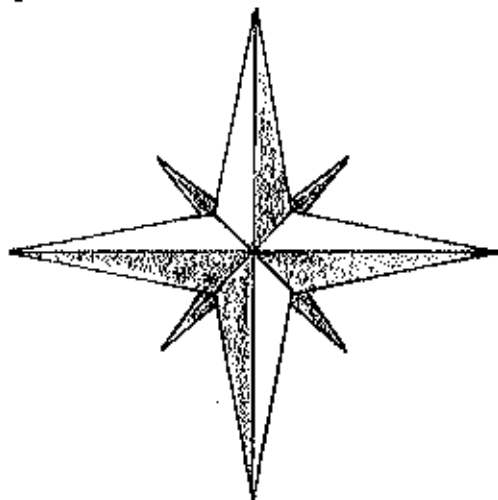
Fire station



Airport

*Symbols are often used when people make maps.*

## Compass Rose



## Make a Compass

Things needed:

- Magnet
- Straight pin or needle
- Piece of cork about 1 inch (4 centimeters) wide by 1/4 inch (1 centimeter) thick
- Bowl or saucer of water

Rub one end of the pin along the magnet about 12 times. Rub in one direction only. Don't rub back and forth. Lift the pin up each time.

Place the pin on the cork. Gently place the cork in the bowl of water. At first, the pin will swing around, then it will point steadily in one direction. It points along the magnetic line between the earth's north and south poles.

## What is Cartography?

*Cartography is the art or technique of making maps or charts.*

# Cub Scout Academics: Mathematics



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Do five activities within your home or school that require the use of mathematics. Explain to your den how you used everyday math.
- \_\_\_\_\_ 2. Keep track of the money you earn and spend for three weeks.
- \_\_\_\_\_ 3. Measure five items using both metric and nonmetric measures. Find out about the history of the metric system of measurement.

### Academics Pin

Earn the Mathematics belt loop and complete one requirement from each of the five areas below:

**I. Geometry** is related to measurement but also deals with objects and positions in space.

- \_\_\_\_\_ 1. Many objects can be recognized by their distinctive shapes: a tree, a piece of broccoli, a violin. Collect 12 items that can be recognized, classified, and labeled by their distinctive shape or outline.

- \_\_\_\_\_ 2. Select a single shape or figure. Observe the world around you for at least a week and keep a record of where you see this shape or figure and how it is used.
- \_\_\_\_\_ 3. Study geometry in architecture by exploring your neighborhood or community. Look at different types of buildings—houses, places of worship, businesses, etc.—and create a presentation (a set of photographs, a collage of pictures from newspapers and magazines, a model) that you can share with your den or pack to show what you have seen and learned about shapes in architecture.

**II. Calculating** is adding, subtracting, multiplying, and dividing numbers.

- \_\_\_\_\_ 1. Learn how an abacus or slide rule works and teach it to a friend or to your den or pack.
- \_\_\_\_\_ 2. Go shopping with your parent or adult partner and use a calculator to add up how much the items you buy will cost. See whether your total equals the total at check out.



- \_\_\_\_\_ 3. Visit a bank and have someone there explain to you about how interest works. Use the current interest rate and calculate how much interest different sums of money will earn.

**III. Statistics is collecting and organizing numerical information and studying patterns.**

- \_\_\_\_\_ 1. Explain the meaning of these statistical words and tools: *data, averaging, tally marks, bar graph, line graph, pie chart, and percentage.*
- \_\_\_\_\_ 2. Conduct an opinion survey through which you collect data to answer a question, and then show your results with a chart or graph. For instance: What is the favorite food of the Cub Scouts in your pack (chart how many like pizza, how many like hamburgers, etc.).
- \_\_\_\_\_ 3. Study a city newspaper to find as many examples as you can of statistical information.
- \_\_\_\_\_ 4. Learn to use a computer spreadsheet.

**IV. Probability helps us know the chance or likelihood of something happening.**

- \_\_\_\_\_ 1. Explain to your den how a meteorologist or insurance company (or someone else) might use the mathematics of probability to predict what might happen in the future (i.e., the chance that it might rain, or the chance that someone might be in a car accident).
- \_\_\_\_\_ 2. Conduct and keep a record of a coin toss probability experiment.
- \_\_\_\_\_ 3. Guess the probability of your sneaker landing on its bottom, top, or side, and then flip it 100 times to find out which way it lands. Use this probability to predict how a friend's sneaker will land.

**V. Measuring is using a unit to express how long or how big something is, or how much of it there is.**

- \_\_\_\_\_ 1. Interview four adults in different occupations to see how they use measurement in their jobs.
- \_\_\_\_\_ 2. Measure how tall someone is. Have them measure you.
- \_\_\_\_\_ 3. Measure how you use your time by keeping a diary or log of what you do for a week. Then make a chart or graph to display how you spend your time.
- \_\_\_\_\_ 4. Measure, mix, and cook at least two recipes. Share your snacks with family, friends, or your den.

## Resources

Besides your local library and schools having resources, the National Council of Teachers of Mathematics has many publications that are helpful to teachers, parents, and students.

**National Council of Teachers of Mathematics**

1906 Association Drive

Reston, VA 20191-1502

Phone: 703-620-9840; fax 703-476-2970

Web site: <http://www.nctm.org>

## What Is Mathematics?

When most people think about mathematics, they think about adding and subtracting, multiplying and dividing, memorizing formulas, and other ways of working with numbers.

But making *calculations* is only one part of mathematics. Mathematics also includes recognizing shapes and forms (*geometry*); *measuring* the properties of things (how long, how wide, how deep, how fast, how far away, how hot, how cold, how much); collecting, organizing, and manipulating numerical information to better understand events (*statistics*); and finding out how likely it is that certain events will happen (*probability*).

## Everyday Mathematics

You use math every day and all around you without even thinking about it.

- You *measure* when you cook, build something, sew.
- You *count* when you use money, or even when you play music.
- You use math when you keep score at an athletic game or when you figure sports *statistics*, such as batting averages in baseball.
- You measure time when you *estimate* how long it will take you to walk to the store or when you'll get back from a movie.
- You use your knowledge of measurement and *fractions* when you cut a pizza into equal pieces.

# Cub Scout Academics: Music



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Explain why music is an important part of our culture.
- \_\_\_\_\_ 2. Learn a song with at least two verses and sing the verses with your den or to an adult family member.
- \_\_\_\_\_ 3. Listen to four different types of music either recorded or live.

### Academics Pin

Earn the Music belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. Make a musical instrument and play it for your family, den, or pack.
- \_\_\_\_\_ 2. Teach your den a song.
- \_\_\_\_\_ 3. Play a song by yourself or in a group, in unison or in harmony.
- \_\_\_\_\_ 4. Create an original melody and/or original words for a song.
- \_\_\_\_\_ 5. Using a tape recorder, capture natural sounds of the environment or record songs you create, and use your recording as a soundtrack for a short skit or as background for a movement activity.
- \_\_\_\_\_ 6. Attend a live musical performance or concert.
- \_\_\_\_\_ 7. Demonstrate conducting patterns for two songs using two different meters (two-, three-, or four-beat meter) while your adult partner or den members sing or play the songs you have selected.
- \_\_\_\_\_ 8. Take voice or dance lessons or lessons to learn to play an instrument.
- \_\_\_\_\_ 9. Create movements to a piece of music without words to demonstrate the moods of the music: happy, sad, calm, excited, playful, inspired.
- \_\_\_\_\_ 10. Learn about a composer of some music that you enjoy. Tell your den or an adult family member what you learned about him or her.

## Resources

Look for books in your local library or school library on music history, instruments, and songs. If there is a symphony or orchestra in your area, see whether you can arrange for a musician to come to a den meeting and talk about his or her instrument.

**The National Association for Music Education**  
1806 Robert Fulton Drive  
Reston, VA 20191  
Phone: 703-860-4000; fax: 703-860-1531  
Web site: <http://www.namenc.org>

## How a Child's Singing Voice Develops

### The Skill Ladder

1. Discovers his singing voice.
2. Approximates correct pitches.
3. Matches tones (pitches).
4. Learns to sing very short songs involving a small range.
5. Memorizes words of songs.
6. Increases ability to sing in tune.
7. Increases abilities in length, range, and musical difficulty.
8. Continues to improve tone quality.
9. Becomes an independent singer; can stay in tune as an accompaniment is played; can sing rounds, etc.
10. Sings expressively.
11. Enunciates well.
12. Learns to breathe in the appropriate places.
13. Sings two- and three-part harmony.

Wherever your child has progressed in the skill ladder, start there and have fun singing together.

### Kinds of Music

**Classical:** Musical masterworks of the European tradition, such as symphonies, operas, concertos, and sonatas.

**Country/western:** Music that has its roots in Southern and Western rural America.

**Folk:** Traditional songs handed down among common people that tell stories and often have simple melodies.

**Hymn:** A religious song or sacred music of praise and joy, revering deity and spirituality.

**Jazz:** Music rooted in African American culture,

ragtime, and the blues, characterized by syncopated rhythms and improvisation.

**March:** Music that has its roots in the military and is most often used in ceremonial marching.

**Nationalist:** Music of a particular country—often patriotic.

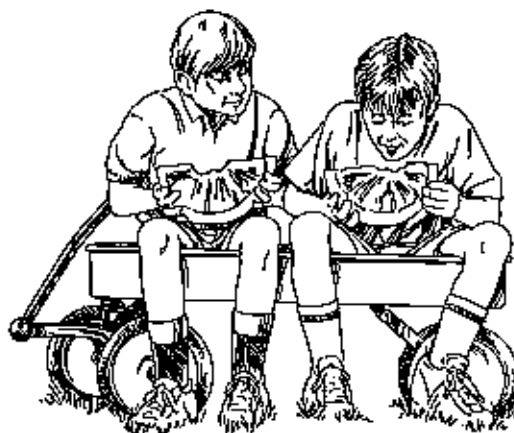
**Opera:** A drama set to music that is entirely sung and accompanied by an orchestra.

**Operetta:** A romantic comic opera having spoken parts, songs, and dances.

**Spiritual:** A religious folk song of African American origin.



# Cub Scout Academics: Nutrition



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Make a poster of foods that are good for you. Share the poster with your den.
- \_\_\_\_\_ 2. Explain the difference between a fruit and a vegetable. Eat one of each.
- \_\_\_\_\_ 3. Help prepare and eat a healthy meal of foods that are included in a food pyramid. (With your parent's or adult partner's permission, see <http://www.mypyramid.gov>.)

### Academics Pin

Earn the Nutrition belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. Make a poster that shows different foods that are high in each of the vitamins. Using your poster, explain to your den or family the difference between a vitamin and a mineral and the importance of each for a healthy diet.

- \_\_\_\_\_ 2. Read the nutrition label from a packaged or canned food item. Learn about the importance of the nutrients listed. Explain what you learned to your den or family.
- \_\_\_\_\_ 3. Make a list of diseases that can be caused by a diet that is poor in nutrition.
- \_\_\_\_\_ 4. Talk with your school cafeteria manager about the role nutrition plays in the meals your school serves.
- \_\_\_\_\_ 5. With an adult, plan a balanced menu of breakfasts, lunches, and dinners for your family for a week.
- \_\_\_\_\_ 6. Make a list of healthy snack foods. Demonstrate how to prepare two healthy snacks.
- \_\_\_\_\_ 7. With an adult, go grocery shopping. Report to your den or other family members what you learned about choosing good foods to eat.

Eating a balanced diet means eating foods that are good for you and that give your body the vitamins and other nutrients it needs to stay healthy.

## Resources

Your local library can be an excellent source of information on nutrition, along with your local college extension service, the U.S. Department of Agriculture, and your local state department of Agriculture.

### Resources About Nutrition

*Eat Healthy, Feel Great*, by William Sears, Martha Sears, and Christie Watts Kelly. Little, Brown Young Readers, 2002.

*Good for You! Nutrition Book and Games*, by Connie Liakos Evers. Disney Press, 2006.

*How to Teach Nutrition to Kids*, by Connie Liakos Evers. 24 Carrot Press, 2006.

*The Race Against Junk Food*, by Anthony Buono and Roy Nemerson. HCOM Inc., 1997.

#### Food Pyramid

Web site: <http://www.mypyramid.gov/kids/index.html>

#### Nutrition for Kids

Web site: <http://nutritionforkids.com>

- \_\_\_\_\_ 8. Demonstrate how to safely prepare food for three meals.
- \_\_\_\_\_ 9. Demonstrate how to store leftover food to prevent spoilage or contamination.
- \_\_\_\_\_ 10. Help with a garden. Report to your den or family about what is growing in the garden and how you helped. Show a picture of or bring an item harvested from your garden.
- \_\_\_\_\_ 11. Visit a farm or ranch. Talk with the owner about how the farm or ranch produces food for families.
- \_\_\_\_\_ 12. Explain how physical exercise works with nutrition in helping people be fit and healthy. Demonstrate three examples of good physical activity.

## Healthy Snacks

- Fresh fruits and vegetables
- Applesauce, fruit cups, fruit leather, or fruit salad
- Fruit juice popsicles or fruit smoothies
- Vegetables and dip
- Veggie pockets in whole wheat pitas
- English muffins
- Crackers or rice cakes and cheese
- Popcorn or pretzels
- Yogurt or low-fat pudding
- Nuts

## What Do Vitamins Do?

**Vitamin A** helps keep your eyes healthy and helps you to have healthy skin.

**Vitamin B (B1, B2, B6, and B12 plus others)** helps your body work properly and gives you energy.

**Vitamin C** helps your body heal better and fights against infection.

**Vitamin D** helps strengthen your bones and teeth.

**Vitamin E** helps keep your skin and lungs healthy.

**Which foods are rich in vitamin A?** Eggs, milk, nectarines, cantaloupe, carrots, spinach

**Which foods are rich in vitamin B?** Whole grains (wheat, oats), fish/seafood, poultry/meats, eggs, dairy products (milk, yogurt), leafy green vegetables, beans and peas, citrus fruits (oranges, tangerines)

**Which foods are rich in vitamin C?** Cantaloupe, strawberries, tomatoes, broccoli, cabbage, citrus fruits

**Which foods are rich in vitamin D?** Milk, fish, eggs, dairy products (fortified with vitamin D)

**Which foods are rich in vitamin E?** Leafy green vegetables, sardines, eggs, nuts, whole grains

**Which foods are rich in vitamin K?** Broccoli, carrots, dairy products, eggs, spinach, tomatoes

# Cub Scout Academics: Pet Care



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Care for your pet for two weeks. Make a list of the tasks that you did to take care of your pet.
- \_\_\_\_\_ 2. Read a book, explore the Internet (with your parent's or adult partner's permission), or acquire a pamphlet about your pet. List three new interesting facts that you learned about your pet.
- \_\_\_\_\_ 3. Make a poster about your pet. Share your poster with your den, pack, or family.

### Academics Pin

Earn the Pets belt loop and complete five of the following requirements:

- \_\_\_\_\_ 4. Observe or play with your pet for 15 minutes each day for one week. Keep a chart that shows your pet's mood on each day.
- \_\_\_\_\_ 5. Attend a pet show. Report to your den about the show.
- \_\_\_\_\_ 6. Make a drawing of the cage or bed your pet requires. Describe the important parts of it.
- \_\_\_\_\_ 7. Visit an animal shelter. Explain the reasons why pets are in the animal shelter to your den or family.
- \_\_\_\_\_ 8. Visit a pet store. Make a list of the different animals in the store and the kinds of foods they eat.
- \_\_\_\_\_ 9. Talk to a veterinarian about his or her career. Share what you learned with your den or family.
- \_\_\_\_\_ 10. Tell three ways that animals can help people.
- \_\_\_\_\_ 11. Do a service project for an animal shelter, exercise an elderly person's pet, or help a friend with the care of his or her pet.
- \_\_\_\_\_ 12. Find out about the pets of U.S. presidents while they lived at the White House. Tell your den about one president and his pet(s).

## Resources

Animals are an important part of the environment and our world. Since we are the most intelligent and advanced animal on Earth, as good Scouts, we need to do our part in the care of all animals. This is especially important for those animals that are part of our daily lives—our pets. A visit to your local library or bookstore will have many resources.

## Books About Pets

*Animal Connection: A Guide to Intuitive Communication With Your Pet*, by Judy Meyer. Plume, 2000.

*The ASPCA Complete Guide to Pet Care*, by David L. Carroll. Plume, 2006.

*The Canary Caper*, by Ron Roy. Random House Books for Young Readers, 1998.

*Complete Guide to Lost Pet Prevention and Recovery*, by Joseph Andrew Sapia and Patricia Sapia. Atlantic Highlands N.J., 2002.

*A Dog's Best Friend: An Activity Book for Kids and Their Dogs*, by Lisa Rosenthal. Chicago Review Press, 1999.

*Illustrated Veterinary Guide*, 2nd ed., by Chris C. Pinney, D.V.M. McGraw-Hill Professional Publishing, 2000.

*Jack Hanna's Ultimate Guide to Pets*, by Jack Hanna. Perigee Trade, 1997.

## Organizations and Web Sites

### Animal Planet

Web site: <http://www.animal.discovery.com>

### Animalforum.com

Web site: <http://www.animalforum.com>

## Pets and Hand Washing

Hand washing helps prevent the spread of disease and illness that can be transmitted by contact with a pet, so it is very important. Wash your hands with soap and water or hand sanitizer anytime you play with pets, handle their food dishes, toys, bedding, grooming tools, and litter boxes.

## Presidents and Their Pets

President	Animals
George Washington	Polly the parrot; 36 hounds; horses (among them Nelson, his favorite)
Thomas Jefferson	A mockingbird named Dick; two bear cubs, a gift from Lewis and Clark
John Quincy Adams	An alligator
Martin Van Buren	Two tiger cubs
Abraham Lincoln	Jack the turkey; goats named Nanny and Nanko; Fido the dog
Andrew Johnson	White mice
John F. Kennedy	Tom Kitten the cat; Robin the canary; Zsa Zsa the rabbit; Pushinka, a dog; ponies Macaroni, Tex, and Leprechaun
Lyndon Johnson	Beagles Him and Her, Freckles (Him's pup), Little Beagle, Blanco, Collie, and Yuki
Richard Nixon	Checkers, a cocker spaniel; Vicky, a poodle; Pasha, a terrier; King Timahoe, an Irish setter
Jimmy Carter	Grits the dog; Misty Malarky Ying Yang, a Siamese cat
Ronald Reagan	Rox, a Cavalier King Charles spaniel; Lucky, a Bouvier des Flandres Rex sheepdog
George H. W. Bush	Millie, a Springer spaniel; Ranger, one of Millie's pups
Bill Clinton	Socks the cat; Buddy, a chocolate Labrador retriever
George W. Bush	Spot Fetcher, English Springer spaniel; Barney and Miss Beazley, Scottish Terriers; India "Willie," a cat

# Cub Scout Academics: Photography



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

1. Point out the major features of a camera to your den or family and explain the function of each part. Parts could include film, lens, shutter, power on and off, zoom, battery, flash, display panel, case, settings, etc.
2. Discuss with your den leader or adult partner, the benefits and contributions photography makes to modern life. Report what you learned to your den or family.
3. Using a camera, take at least 10 pictures of your family, pet, or scenery; show these to your den.

### Academics Pin

Earn the Photography belt loop and complete five of the following requirements:

1. Using pictures, explain what photography is and how it relates to light and picture-taking.
2. Look at a book of published photos about a subject that interests you. Find out what makes these photos remarkable and why people want

to look at these pictures. Learn whether the photographer used light or angles to make the photos interesting. Discuss what you learned with an adult.

3. Explain to an adult what "red eye" is and why it can happen in a picture. Show examples.
4. Make a short video of a friend, family member, or pet, and show it to your den or family.
5. With an adult's help, use a photo-editing software feature to crop, lighten or darken, and change a photo.
6. Make a creative project using at least one photo.
7. Take three pictures of the same scene using different lens settings. Show these pictures to your den or family.
8. Visit an art exhibit that features photography. Write a list of some of the things you saw and felt during your visit.
9. Demonstrate how to use a light meter and manually set the aperture (lens opening) on a camera.
10. Print and develop a picture from a film negative.



## Resources

Local camera and electronic stores can be helpful resources. Many books on photography also are available.

### Books About Photography

*The Basic Book of Photography*, 5th ed., by Tom Grimm and Michele Grimm. Plume, 2003.

*Digital Photo Madness! 50 Weird & Wacky Things to Do With Your Digital Camera*, by Thom Gaines. Lark Books, 2006.

*The Kids' Guide to Digital Photography: How to Shoot, Save, Play With & Print Your Digital Photos*, by Jenni Bidner. Lark Books, 2004.

*Picture This: Fun Photography and Crafts*, by Debra Friedman. Kids Can Press, 2003.

### Web Sites

#### Big Learning

Web site: <http://www.biglearning.com/treasure-photography-for-kids.htm>

#### Photographytips.com

Web site: <http://www.photographytips.com>

11. Read about a famous photographer and tell his or her story to your den. Explain why he or she is famous or admired.

The word "photography" comes from two ancient Greek words: photo, for "light," and graph, for "drawing." Photography is a way of "Drawing with light."

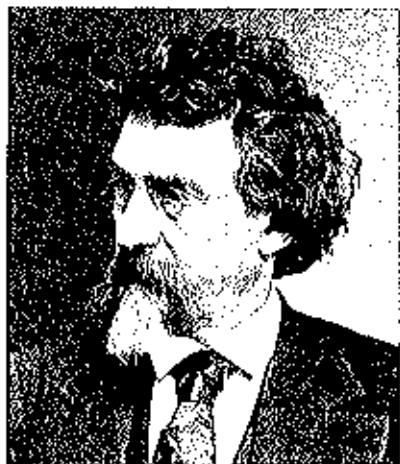
## Tips for Taking Good Pictures

1. Catch your subject being natural.
2. Make sure the lighting is right.
3. Hold your camera steady, then shoot quickly.
4. Look at the entire view of the picture. Keep anything distracting out of the picture.
5. Be creative and take photos from different angles, but keep it simple.
6. When taking pictures of people, do not stand too far away. If it's a group, get the people to stand close together.

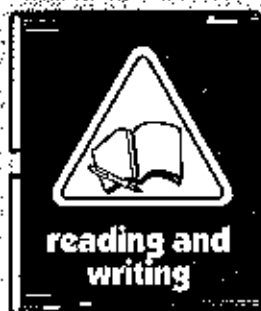
## The History of Photography

1. People tried to capture scenes for others to see by drawing or painting pictures. Early photographs were called sun pictures, because sunlight was used to create the image.
2. The first photograph was made by Niepce in 1827. It was not a good picture, and it was quite blurry. It required over 8 hours of sunlight exposure.
3. Later, Daguerre made some images on metal sheets using very difficult steps. He learned how the different amounts of light could affect the pictures.
4. During the next 20 years, many inventors tried different ways to make photos that would be clear and permanent.
5. By 1850, photos were put on paper instead of metal, and many people had their portraits taken.
6. In the 1880s, Eastman put flexible roll film on the market, and in 1889 he introduced the first Kodak camera.
7. Over the next 100 years, many improvements were made.
8. Regular "point and shoot" cameras were marketed in the late 1970s.
9. In the 1980s, video cameras became trendy.
10. In 1990s, digital photography became widely popular. The use of a tool called a memory card made it possible to copy photos directly from a camera to a computer so that pictures could be printed at home.

**Mathew Brady** became famous as the photographer who captured the U.S. Civil War in stunning pictures.



# Cub Scout Academics: Reading and Writing



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Visit a library and get your own library card. Check out and return a book.
- \_\_\_\_\_ 2. Write a letter or a short story. Read it to your den or family.
- \_\_\_\_\_ 3. Keep a diary of your activities for one week. Read it to your den or family.

### Academics Pin

Earn the Reading and Writing belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. Locate and identify the following parts of a book: title, author, spine, cover, table of contents, and index.
- \_\_\_\_\_ 2. Read a book to a child or group of children.
- \_\_\_\_\_ 3. Participate in a school or community organized reading program.
- \_\_\_\_\_ 4. Explain the differences in a biography, autobiography, fiction, and nonfiction books to your parent or den leader.

- \_\_\_\_\_ 5. Create a bookmark that you can use, or design a book cover.
- \_\_\_\_\_ 6. Read an article from a newspaper or magazine. This can be done on the computer. Report about what you read to an adult.
- \_\_\_\_\_ 7. Write a poem and read it to a family member.
- \_\_\_\_\_ 8. Write a short report about something of interest to you. Read your report to your den or family.
- \_\_\_\_\_ 9. Read several jokes and riddles. Create two of your own and share them with your den or family.
- \_\_\_\_\_ 10. Write a commercial, song, or jingle for some product. Perform it for your den or family.
- \_\_\_\_\_ 11. Create your own alphabet, writing system, or code and explain it to your den or pack.
- \_\_\_\_\_ 12. Learn about another writing system such as petroglyphs or Egyptian hieroglyphs. Do your best to draw some of these symbols. Report what you learned to your den or family.

## Resources About Reading and Writing

Your local library is, of course, one of the best resources for reading and writing. Here are some others you might find useful.

- Alphabet coloring pages; Web site: <http://www.learningplanet.com/parents/alphabet>

- *Boys' Life* magazine; Web site: <http://boyslife.org>
- Egyptian hieroglyphics; Web site: <http://www.kidzone.ws/cultures/egypt/hieroglyph.htm>
- Petroglyph National Monument; Web site: <http://www.nps.gov/petr/index.htm>
- Writings by Dr. Seuss, Shel Silverstein, and Jack Prelutsky

## Simple Codes

1. **Letter substitution.** Use the English alphabet, but substitute a different letter for the original letter. Example: If A = B, B = C, C = D, and so on, then the word "cat" would be spelled "DBU."
2. **Letter substitution with numbers.** This code is similar to letter substitution, but use numbers in place of letters. For example: If A = 1, B = 2, C = 3, and so on, then the word "cat" would be written as 3-1-20.

## Caldocoff Medal Winners

- 2008: *The Invention of Hugo Cabret*, by Brian Selznick  
2007: *Flotsam*, by David Wiesner  
2006: *The Hello, Goodbye Window*, by Norton Juster  
2005: *Kitten's First Full Moon*, by Kevin Henkes  
2004: *The Man Who Walked Between the Towers*, by Mordicai Gerstein  
2003: *My Friend Rabbit*, by Eric Rohmann  
2002: *The Three Pigs*, by David Wiesner  
2001: *So You Want to Be President?*, by Judith St. George  
2000: *Joseph Had a Little Overcoat*, by Simms Taback

## Newbery Medal Winners

- 2008: *Good Masters! Sweet Ladies! Voices From a Medieval Village*, by Laura Amy Schlitz  
2007: *The Higher Power of Lucky*, by Susan Patron  
2006: *Criss Cross*, by Lynne Rae Perkins  
2005: *Kira-Kira*, by Cynthia Kadohata  
2004: *The Tale of Despereaux: Being the Story of a Mouse, a Princess, Some Soup, and a Spool of Thread*, by Kate DiCamillo  
2003: *Crispin: The Cross of Lead*, by Avi  
2002: *A Single Shard*, by Linda Sue Park  
2001: *A Year Down Yonder*, by Richard Peck  
2000: *Bud, Not Buddy*, by Christopher Paul Curtis



Don't forget to read the stories in *Boys' Life* magazine!

# Cub Scout Academics: Science



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_ 1. Explain the scientific method to your adult partner.
- \_\_\_ 2. Use the scientific method in a simple science project. Explain the results to an adult.
- \_\_\_ 3. Visit a museum, a laboratory, an observatory, a zoo, an aquarium, or other facility that employs scientists. Talk to a scientist about his or her work.

### Academics Pin

Earn the Science belt loop and complete five of the following requirements:

- \_\_\_ 1. Make a simple electric motor that works.
- \_\_\_ 2. Find a stream or other area that shows signs of erosion. Try to discover the cause of the erosion.
- \_\_\_ 3. Plant seeds. Grow a flower, garden vegetable, or other plant.
- \_\_\_ 4. Use these simple machines to accomplish tasks: lever, pulley, wheel-and-axle, wedge, inclined plane, and screw.
- \_\_\_ 5. Learn about solids, liquids, and gases using just water. Freeze water until it turns into ice. Then, with an adult, heat the ice until it turns back into a liquid and eventually boils and becomes a gas.
- \_\_\_ 6. Build models of two atoms and two molecules, using plastic foam balls or other objects.
- \_\_\_ 7. Make a collection of igneous, metamorphic, and sedimentary rocks and label them.
- \_\_\_ 8. Learn about a creature that lives in the ocean. Share what you have learned with your den or family.
- \_\_\_ 9. Label a drawing or diagram of the bones of the human skeleton.
- \_\_\_ 10. Make a model or poster of the solar system. Label the planets and the sun.
- \_\_\_ 11. Do a scientific experiment in front of an audience. Explain your results.
- \_\_\_ 12. Read a book about a science subject that interests you. Tell your den or an adult family member about what you learned.

## Resources

Visit libraries, science museums, and college and university science departments. If you have access to the World Wide Web on the Internet, use search engines to look for the information you need. (Be sure you have your parent's or adult partner's permission first.)

### National Science Teachers Association

1840 Wilson Blvd.

Arlington, VA 22201-3000

Phone: 703-243-7100; fax: 703-243-7177

Web site: <http://www.nsta.org>

The NSTA Web site includes a Science Store with more than 300 science education materials.

### Delta Education Hands-On Science Catalog

80 Northwest Blvd.

P.O. Box 3000

Nashua, NH 03061-3000

Phone: 1-800-258-1302; fax: 1-800-282-9560

Web site: <http://www.delta-ed.com>

### Nasco

Nasco distributes various educational catalogs focusing on science and industry. The company has headquarters in Fort Atkinson, Wisconsin, and Modesto, California. Web site: <http://www.eNasco.com>; customer service: 1-800-558-9595.

### Carolina Biological Supply Company

2700 York Road

Burlington, NC 27215-3398

Phone: 1-800-334-5551; fax: 1-800-222-7112

Web site: <http://www.carolina.com>

Products and publications for classroom educators of biology, chemistry, physics, and earth and space sciences.

## The Scientific Method

Scientists are always trying to create an accurate picture or description of the world around us. They want to do this without their own opinions or biases getting in the way of how they see things, so they use an objective method of discovery as they develop their theories about the world.

### 1. Purpose

You start off wanting to find out the answer to a question—usually one that you arrive at by observing the world around you. For instance, if you see plants wilting when they don't get enough water, you might ask, "How much water do plants need to grow?"

### 2. Hypothesis

What do you think will happen? For instance, "I hypothesize that if I water the plants once a week, they will grow."

### 3. Materials and Procedures

What do you need and what will you do to find out the answer to your question, or "test" your hypothesis? This part of the scientific method is important so that other people can repeat your experiments and see whether they get the same results.

### 4. Data Collection

Write down everything you observe during your experiments and organize your data so that it is clear (perhaps using tables or graphs).

### 5. Conclusions

From your data, you can draw conclusions about your hypothesis—whether it is true or false. For instance, if you found out that plants were healthy and grew when you watered them once a week, you could conclude that your hypothesis was true. But if they turned brown because they got too much water, you could conclude that your hypothesis was not true, and that watering once a week is too much.

## Judging Science Projects

When judging science projects, consider the following areas:

### 1. Scientific Method and Thought

Does the project follow the scientific method?

### 2. Originality

Is the project mainly the work of the child?

### 3. Thoroughness

Are all parts of the project done well?

### 4. Technical Skill

Does the project show effort and craftsmanship?

### 5. Clarity

Is the project easily understood?

# Cub Scout Academics: Video Games



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Explain why it is important to have a rating system for video games. Check your video games to be sure they are right for your age.
- \_\_\_\_\_ 2. With an adult, create a schedule for you to do things that includes your chores, homework, and video gaming. Do your best to follow this schedule.
- \_\_\_\_\_ 3. Learn to play a new video game that is approved by your parent, guardian, or teacher.

### Academics Pin

Earn the Video Games belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. With your parents, create a plan to buy a video game that is right for your age group.
- \_\_\_\_\_ 2. Compare two game systems (for example, Microsoft Xbox, Sony PlayStation, Nintendo Wii, and so on). Explain some of the differences between the two. List good reasons to purchase or use a game system.
- \_\_\_\_\_ 3. Play a video game with family members in a family tournament.
- \_\_\_\_\_ 4. Teach an adult or a friend how to play a video game.
- \_\_\_\_\_ 5. List at least five tips that would help someone who was learning how to play your favorite video game.
- \_\_\_\_\_ 6. Play an appropriate video game with a friend for one hour.
- \_\_\_\_\_ 7. Play a video game that will help you practice your math, spelling, or another skill that helps you in your schoolwork.
- \_\_\_\_\_ 8. Choose a game you might like to purchase. Compare the price for this game at three different stores. Decide which store has the best deal. In your decision, be sure to consider things like the store return policy and manufacturer's warranty.
- \_\_\_\_\_ 9. With an adult's supervision, install a gaming system.

## Entertainment Software Rating Board

Before buying any video game, be sure to check for a rating by the ESRB. This rating will help you decide whether a game is right for you and your family.



**EC: Early Childhood.** Content may be suitable for persons ages 3 and older. Contains no material that parents would find inappropriate.



**E: Everyone.** Content may be suitable for persons ages 6 and older. May contain minimal violence and some comic mischief or crude language.



**E10+: Everyone 10+.** Content may be suitable for persons ages 10 and older. May include more cartoon and fantasy and some mild violence, mild language, and a small degree of suggestive themes.

Only games with an "EC," "E" or "E10+" rating may be right for Cub Scout-age children. There are other ratings for older and more mature audiences.

### Family Guidelines

Here are some suggestions for families.

- Make a plan. Schedule video gaming times and choices in advance, just as you would other activities.
- Set time limits. Limit children's total screen time, usually no more than 1 to 2 hours per day and with periodic breaks.
- Make video gaming a family activity.
- Set family guidelines for video game content.



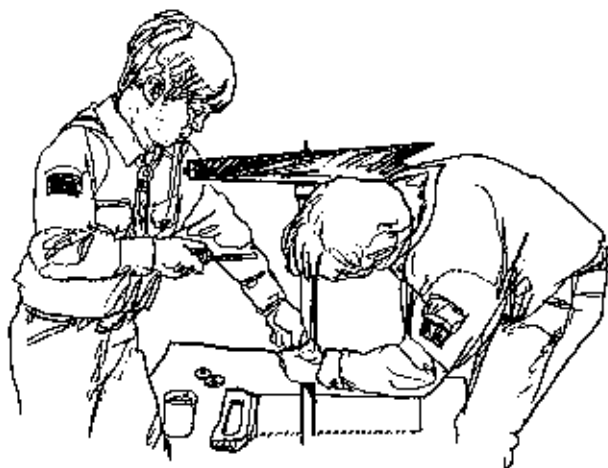
### Rules for Online Safety

- I will talk with my parents so that we can set up rules for going online. We will decide on the time of day that I can be online, the length of time I can be online, and appropriate Web sites for me to visit. If I want to visit other Web sites, I will get my parents' permission first.
- While I'm online, I will not give out personal information such as my address, telephone number, parents' work addresses/telephone numbers, or the name and location of my school without my parents' permission.
- I will tell my parents right away if I come across any information that makes me feel uncomfortable.
- I will not respond to any messages that are mean or in any way make me feel uncomfortable. It is not my fault if I get a message like that. If I do, I will tell my parents right away so that they can contact the online service.
- I will never agree to get together with someone I "meet" online without first checking with my parents. If my parents agree to the meeting, I will be sure that it is in a public place, and I will bring a parent or my adult guardian along.
- While I'm online, I will never send a person my picture or anything else without first checking with my parents.

### Helpful Hints

- Be sure you have your parent or adult partner's permission whenever you want to use the Internet. Search the Internet for video games only with a parent's or adult partner's permission and help.
- Play fun games that are right for your age group.
- With your parent or adult partner, always check the rating symbols and description on a game before purchasing it.

# Cub Scout Academics: Weather



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Make a poster that shows and explains the water cycle.
- \_\_\_\_\_ 2. Set up a simple weather station to record rainfall, temperature, air pressure, or evaporation for one week.
- \_\_\_\_\_ 3. Watch the weather forecast on a local television station. Discuss with an adult family member what you heard and saw. Follow up by discussing the accuracy of the forecast.

### Academics Pin

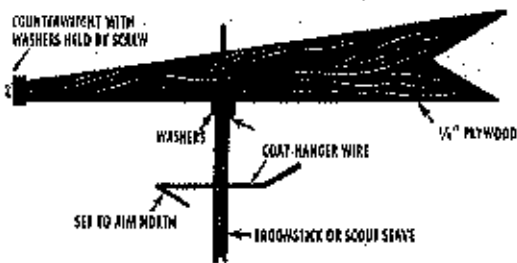
Earn the Weather belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. Explain to your den or an adult family member the meaning of these terms: *weather*, *humidity*, *precipitation*, *temperature*, and *wind*.
- \_\_\_\_\_ 2. Explain how clouds are made. Describe the different kinds of clouds—*stratus*, *cumulus*, *cumulonimbus*, and *cirrus*—and what kind of weather can be associated with these cloud types.
- \_\_\_\_\_ 3. Describe the climate in your state. Compare its climate with that in another state.
- \_\_\_\_\_ 4. Describe a potentially dangerous weather condition in your community. Discuss safety precautions and procedures for dealing with this condition.
- \_\_\_\_\_ 5. Tell what is meant by *acid rain*. Explain the *greenhouse effect*.
- \_\_\_\_\_ 6. With your parent's or adult partner's permission, talk to a meteorologist about his or her position. Learn about careers in meteorology. Share what you learned with your den or an adult family member.
- \_\_\_\_\_ 7. Make a weather map of your state or country, using several weather symbols.
- \_\_\_\_\_ 8. Explain the differences between tornadoes and hurricanes.
- \_\_\_\_\_ 9. Make a simple weather vane. Make a list of other weather instruments and describe what they do.
- \_\_\_\_\_ 10. Explain how weather can affect agriculture and the growing of food.
- \_\_\_\_\_ 11. Make a report to your den or family on a book about weather.
- \_\_\_\_\_ 12. Explain how rainbows are formed and then draw and color a rainbow.

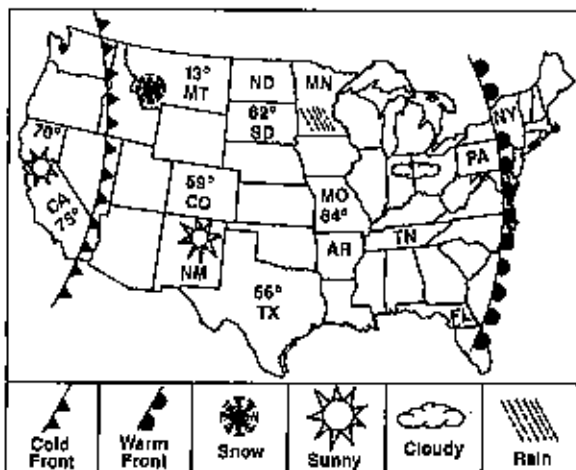


## Weather Instruments

Anemometer, balloon, barometer, hygrometer, kite, radar, radiosonde, rain gauge, satellite, thermocouple, thermometer, and weather vane.



**A simple weather vane**



**Weather symbols**

## Be Safe in Dangerous Weather!

No matter where you live, the weather can become dangerous. From tornadoes and hurricanes to floods and too much heat or cold, it's a good idea to know about the potentially dangerous weather in your area and have a family weather emergency plan.

The American Red Cross suggests taking these precautions:

- Decide where to go and where you would be safe if a flood, severe thunderstorm, or tornado warning is issued—whether you're at home, at school, outdoors, or in a car.
- Have a family disaster supply kit, and know where it is. The kit should include such items as a flashlight, batteries, a battery-operated radio, and a first-aid kit. (For a complete list of supplies that the American Red Cross recommends, contact your local Red Cross chapter.)

## Resources

Besides books at your local library about weather, the Internet has many weather-related sites. You can learn about the weather all over the world and see radar sweeps that show current weather in any part of the country. Use a search engine to explore. (Be sure you have your parent's or adult partner's permission first.) Also, the National Weather Service may have a local office in your area and can be an excellent resource.

- Make plans for communication in case your family members become separated. Have a friend or relative who lives outside your area be the contact person.
- Agree upon a place where family members can meet if separated.
- Have a plan in place also for family pets. Contact your local Red Cross chapter for information on pet care during an emergency.

## Types of Clouds

Clouds are made of particles of water or ice suspended in the air. When these particles come together, they form a cloud. Larger water droplets may get too big and heavy for the cloud to hold, so they fall to Earth as rain, sleet, or snow. There are four major types of clouds:

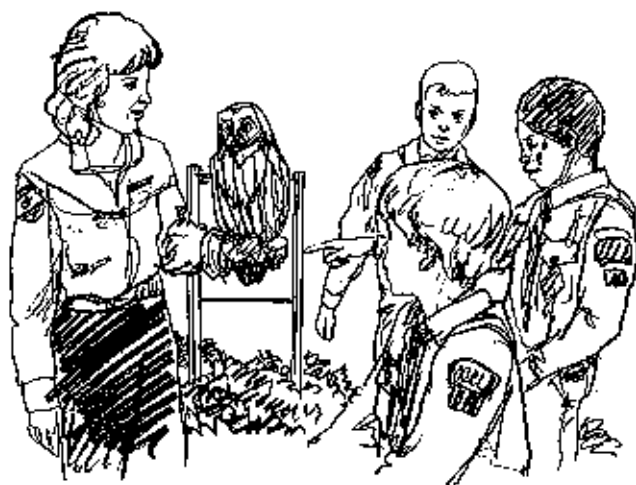
**Cirrus** clouds are the highest clouds, about 50,000 to 55,000 feet above Earth. They form feathery wisps and are made of ice crystals.

**Cumulonimbus** clouds are middle-level clouds at 6,500 to 24,000 feet. They are flat and dark on the bottom and billow upward. They can cause the heaviest downpours, often with thunder and lightning.

**Cumulus** clouds are white and puffy and are about 5,000 feet above Earth. They sometimes look like huge balls of cotton.

**Stratus** clouds are made of low layers of gray clouds that usually cover the whole sky. They are foglike and appear in flat layers.

# Cub Scout Academics: Wildlife Conservation



## REQUIREMENTS

Tiger Cubs, Cub Scouts, and Webelos Scouts may complete requirements in a family, den, pack, school, or community environment. Tiger Cubs must work with their parents or adult partners. Parents and partners do not earn loops or pins.

### Belt Loop

Complete these three requirements:

- \_\_\_\_\_ 1. Explain what natural resources are and why it's important to protect and conserve them.
- \_\_\_\_\_ 2. Make a poster that shows and explains the food chain. Describe to your den what happens if the food chain becomes broken or damaged.
- \_\_\_\_\_ 3. Learn about an endangered species. Make a report to your den that includes a picture, how the species came to be endangered, and what is being done to save it.

### Academics Pin

Earn the Wildlife Conservation belt loop and complete five of the following requirements:

- \_\_\_\_\_ 1. Visit a wildlife sanctuary, nature center, or fish hatchery.
- \_\_\_\_\_ 2. Collect and read five newspaper or magazine articles that discuss conservation of wildlife and report to your family or den what you learn.
- \_\_\_\_\_ 3. Learn about five animals that use camouflage to protect themselves. Tell your den or an adult family member what you learned.
- \_\_\_\_\_ 4. Make a birdbath and keep a record for one week of the different birds that visit it.
- \_\_\_\_\_ 5. Make a collage of animals that are in the same class: fish, amphibians, reptiles, birds, or mammals.
- \_\_\_\_\_ 6. Make a plaster cast of an animal track. Show it to your den.
- \_\_\_\_\_ 7. With your parent or adult partner, visit with a person who works in wildlife conservation, such as a park ranger, biologist, range manager, geologist, horticulturist, zookeeper, fishery technician, or conservation officer.
- \_\_\_\_\_ 8. Visit a state park or national park.
- \_\_\_\_\_ 9. Participate in an environmental service project that helps maintain habitat for wildlife, such as cleaning up an area or planting trees.

## Resources

Visit the library, a natural history museum, a game preserve, and any federal, state, and local agencies involved in fish and game and wildlife conservation.

### Wildlife Forever

2700 Freeway Blvd. #1000

Brooklyn Center, MN 55430

Phone: 763-253-0222; fax: 763-560-9961

Web site: <http://www.wildlife forever.org>

### U.S. Fish and Wildlife Service

Department of the Interior

Room 3445

1849 C St., NW

Washington, DC 20240

Phone: 1-800-344-WILD

Web site: <http://www.fws.gov>

### U.S. Environmental Protection Agency

Ariel Rios Building

1200 Pennsylvania Ave., NW

Washington, DC 20004

Web site: <http://www.epa.gov>

### U.S. Forest Service Natural Resources and Conservation Education Program

Web site: <http://www.fs.fed.us/outdoors/nrce>

The Conservation Education (CE) program helps people of all ages understand and appreciate our country's natural resources and how to conserve those resources for future generations.

### National Wildlife Federation Backyard Wildlife Habitat Program

11100 Wildlife Center Drive

Reston, VA 20190-5362

Phone: 1-800-822-9919

Web site: <http://www.nwf.org>

The National Wildlife Federation began the Backyard Wildlife Habitat program in 1973 to acknowledge and encourage individuals who garden for the benefit of wildlife.

## Ways to Make a Difference!

- Put out nesting materials for birds, such as short pieces of yarn, string, or dried tall grasses.
- Place a birdbath in your yard. Keep it clean and filled with fresh water.
- Put out a bird feeder, or several feeders that have different foods for different kinds of birds.
- Make or buy a hummingbird feeder.
- Build a bat house. One small brown bat can eat 600 mosquitoes an hour!
- Grow flowering plants such as asters, zinnia, or milkweed to provide nectar for butterflies.
- Leave standing dead and dying trees in an area unless they pose a hazard to humans or property. Dead, dying, and hollow trees and logs on the ground provide homes for many species of wildlife.
- Write letters to newspapers or local government representatives on environmental issues.

## The Balance of Nature

Conservation of wildlife is important because of the idea of the *balance of nature*. Animals, plants, and their habitats are connected through an environment that supplies them with what they need to live. This is called an *ecosystem*. The ecosystem is balanced when all the parts of the community are present: animals are able to find food and have healthy young.

If you lose a part of the balance, the entire system can suffer. For instance, in some parts of the country, people thought that wolves threatened their livestock, so they killed the wolves. But without these predators, the population of deer increased too quickly. In new housing developments, you now can see deer grazing in people's backyards and eating shrubs and flowers. The deer also don't have as much natural habitat because of all the buildings.

You are part of the balance of nature too. Think of how you are a part of your ecosystem, and what you can do to help preserve it.