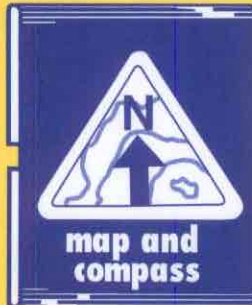


# Cub Scout Academics: Map and Compass



## 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. Define cartography.
- \_\_\_ 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.

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—Man-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



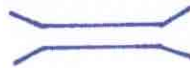
Forest



Factory



Park



Bridge



Picnic area



Hospital



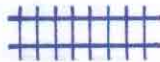
School



Town



Road



Railroad



Capital city



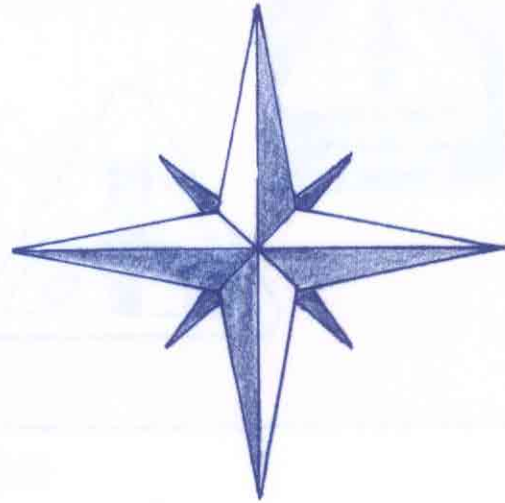
Fire station



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  $\frac{1}{4}$  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.