



# Map Skills

*Life Skills – Step 3*

## Purpose

The "Map Skills" Step provides a basic knowledge of what maps are and how they can be used. Basic features of maps will be understood. Trailmen should be able to find their location on a map and how to get to another location.

1. What are the different types of maps and what are they used for?
2. What are the features on a globe or world map?
3. What are some features on a road map?
4. What are some features on a USGS or hiking map?
5. How is a floor plan like a map?




## Notes to the Trail Guide

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1. The goal is not for the boys to be experts at these skills, but to gain an increased knowledge and awareness of the skills of this Step.
2. Make it relative to your patrol.
3. Remember, these lessons should build from Fox to Hawk and from Hawk to Mountain Lion.
4. See the Leaders Guide for more information on Steps.
5. Fox Patrol boys may skip Tasks 4 & 5.
6. Hawk Patrol may skip Task 5.

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## Skills Progression

	<ol style="list-style-type: none"><li>1. Basic concepts</li><li>2. Identify major items</li><li>3. Locate home state on US map or globe</li><li>4. Locate major features on a floor plan</li></ol>
	<ol style="list-style-type: none"><li>1. Identify major features on a globe and map</li><li>2. Trace roads from city to city</li><li>3. Use distance chart on a state map</li><li>4. Understand how a climate map works</li></ol>
	<ol style="list-style-type: none"><li>1. Identify many map features</li><li>2. Trace roads from city to city</li><li>3. Estimate distances between locations on a map</li><li>4. Determine elevation on a USGS map</li><li>5. Identify escape routes on a floor plan</li></ol>

# Helps

1. What are the different types of maps and what are they used for?
  - a. **Goal:** To understand that there are many types of maps and many different purposes for those maps.
  - b. **Lesson:** Identify several different types of maps and the purpose of each.
  - c. **Examples:**
    - i. Globe: gives general location of countries, oceans, major cities, rivers, equator, latitude & longitude; helps to understand the relative position of major features of the earth.
    - ii. Political map: shows political boundaries such as state line or county lines,
    - iii. United States map
    - iv. State map
    - v. County map
    - vi. Physical map: shows the physical landscape features such as mountains, lakes, rivers, elevation is typically shown in different colors and shadings to show relief.
    - vii. Topographic map: Similar to a physical map except it uses contour line to show elevation.
    - viii. Climate map: shows climate for particular areas, may show temperature, normal snow fall, rain fall.
    - ix. Weather maps: used by news sources or the internet to show current or projected forecasts.
    - x. Road maps: used for navigating highways and roads. Shows roads, cities, towns, water bodies, and other features. It is one of the most widely used types of map.
    - xi. Other types of maps: Economic, resource, thematic, site (site maps may include a map of the zoo or of a state park), star/solar system.
  
2. What are the features on a globe or world map?
  - a. **Goal:** To understand that features on a globe.
  - b. **Lesson:** Identify several features on a globe.
  - c. **Examples:**
    - i. Oceans/seas
    - ii. Continents
    - iii. Countries
    - iv. Cities/capitols
    - v. Equator
    - vi. Latitude & longitude lines
    - vii. North and South poles
    - viii. International date line
  - d. **Example activities:**
    - i. Who can locate Brazil?
    - ii. What latitude line goes by Madrid, Spain?

- iii. What country is south of Egypt?
- iv. What countries in South America are on the equator?

3. What are some features on a road map?

- a. **Goal:** To understand some features on a road map.
- b. **Lesson:** Identify several features on a road map.
- c. **Examples:**
  - i. Political lines (countries, states, counties, cities)
  - ii. Legend or Key
  - iii. Roads (interstates, highways, major roads, minor roads)
  - iv. Compass Rose or North Arrow
  - v. Cities/towns
  - vi. Water bodies (ocean, lakes, rivers)
  - vii. Inset showing greater detail
  - viii. Chart showing distances between cities
  - ix. Area of interest (airports, fish hatchery, national forest, etc...)
  - x. Scale
  - xi. Location Index and map grid
- d. **Example activities:** On a South Carolina state highway map (modify to your state or local area):
  - i. Locate the state capitol, Columbia.
  - ii. Locate the City of Spartanburg.
  - iii. What interstate connects Columbia and Spartanburg?
  - iv. Using the Location Index, locate the town of Ware Place. TLUSA office and Camp Aiken are located just south of Ware Place.
  - v. What is the best way to drive from Ware Place to Chapin? What are the different types of road would you drive on?
  - vi. Locate an airport.
  - vii. Locate a national forest.
  - viii. What river separates Florence and Marion Counties?
  - ix. Locate a state park that has camping. What park is it?
  - x. Using the distance chart, what is the distance between Myrtle Beach and Clemson?
  - xi. Using the inset for Downtown Charleston, how many hospitals are there?
  - xii. What is the approximate population of Varnville?
  - xiii. What is the county seat of Lee County?
  - xiv. What borders the state on each side?

4. How can you determine the distance between two cities on a road map? [not for Fox Patrol]

- a. **Goal:** To understand how to determine distance on a map.
- b. **Lesson:** Determine the distance between sites on a map using several methods.

- c. **Examples:**
  - i. Use distance chart.
  - ii. Use mileage printed along major roads.
  - iii. Use scale.
- d. **Example activities:** On a South Carolina state highway map:
  - i. Using the distance chart determine the distance between Camden and Cheraw. (54 miles)
  - ii. Using the mileage printed along the roads, what is the distance between Camden and Cheraw? ( $27+28= 55$  miles)
  - iii. Using the scale, determine the distance between Camden and Cheraw. (51 miles)

5. What are some features on a USGS or hiking map? [not for Fox or Hawk Patrol]

- a. **Goal:** To understand how to use a USGS or hiking map.
- b. **Lesson:** Learn the features and colors of a USGS map. Learn to read contours.
- c. **Examples:**
  - i. What are the colors on a USGS map and what do they mean?
  - ii. Black - manmade objects (roads, buildings, railroad)
  - iii. Red - major roads
  - iv. Green - vegetation
  - v. White - non vegetated areas
  - vi. Blue - water
  - vii. Brown - contours
  - viii. Pink - cities/urban areas
  - ix. Purple - revisions to map since last revision
  - x. What is the contour interval? (normally on bottom center of map)
  - xi. Locate contours and show a steep slope (contours close together).
  - xii. Locate a trail or road and determine the high and low elevations.
  - xiii. What is the length of the path you chose?

6. How is a floor plan like a map?

- a. **Goal:** To understand that floor plans are a type of map.
- b. **Lesson:** To understand how to use a floor plan for basic navigation.
- c. **Examples:**
  - i. Obtain a floor plan of the facility you meet in.
  - ii. Locate your meeting room.
  - iii. Locate the bathroom.
  - iv. Locate exits and determine the best way to leave the building in case of fire.
- d. **Example activities:**
  - i. Draw a simple floor plan of your house.
  - ii. Use symbols to indicate windows, doors, toilets, etc...

## Activity Ideas

- See the relevant patrol and branch section of the activities.
- Or, create your own activity relevant to your troop and region.
- Several ideas are listed above in the Helps section.

## Game ideas

- Check the games section online for game ideas.
- Or, create a game that works for your patrol.
- Several ideas are listed below.
  - **World Chair Volleyball** (or regular volleyball)
    - Provide a beach ball that looks like a globe.
    - Set up chairs with similar number on each side of net. Net can be a rod (or rope) held up by two leaders or something more ornate.
    - Play like normal volleyball. Bottoms cannot leave the chairs.
  - **Where am I?**
    - Toss a globe beach ball to a boy.
    - He must tell where is right forefinger is. (country, ocean, continent, pole, ...)
  - **Where in the World\* is Ranger "Eric"?** (or \*Nation or \*State)
    - Using a map of the TG's choice, give clues to locate Ranger "Eric". (Use your Ranger's name here).
    - Example: Use US map. He is west of the Mississippi river. He is in a state that touches Canada. He is north of Utah. He is in the capitol.
  - **Go North**
    - Use a room of appropriate size.
    - Name (or label) each wall as a cardinal direction: North, East, South, West. (Add corners as NE, SE, NW, SW for ML's if needed.)
    - One person is "it".
    - Trail Guide calls a direction and all boys try to move from the wall he is on to the new wall without being tagged.
    - Whoever is tagged is now it.
    - Boys are "safe" if they are touching a wall.

## Scripture

### Matthew 28:18-20

- Fox - God wants us to spread His word to all nations. Pray for a missionary your church supports and find his country on a map.

- Hawk - God wants us to spread His word to all nations. Pray for a missionary your church supports and find his country on a map.
- Mt. Lion - God wants us to spread His word to all nations. Look at a world map and have each boy select a different country to pray for this week.

### Acts 1:8

- Fox - Maps help us to know where God wants us to share His word. Pray for a missionary.
- Hawk - Maps help us to know where God wants us to share His word. Pray for a missionary.
- Mt. Lion - Jerusalem is like a local map, Judea and Samaria are like country maps, and the end of the earth is like a world map. Look at a world map and have each boy select a different country to pray for this week.

### Jeremiah 29:11 (NKJV)

- Fox - Building plans are like maps, they help show us the way. God has plans for us.
- Hawk - Building plans are like maps, they help show us the way. God Himself has designed a plan for us.
- Mt. Lion - Building plans are like maps, they help show us the way. God has drawn the plan for our lives and He will support us and give us a future with Him in Heaven.

### Proverbs 4:26

### Psalms 119:105

- Fox - God's word illumines the path He wants us to tread.
- Hawk - God's word illumines the path He wants us to tread.
- Mt. Lion - God's word illumines the path He wants us to tread. We must use our minds to ponder our path to make sure it is God's path for us.
- Activity: Place obstacles (chairs, toys, boxes, tables) in a room. Have the boys, one at a time, walk across the room while looking straight up (not pondering his path). How many obstacles did he hit (how many time did he sin?)? Next let him ponder his feet and walk without stumbling. You may want to rearrange the obstacles after each boy to prevent a pattern.
- Activity: Similar to the activity above but in the dark. Once in the dark, then with a flashlight.

# Types of Maps



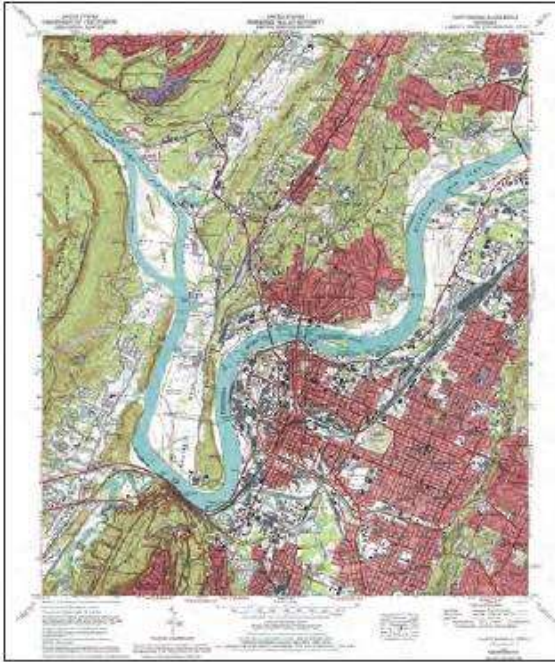
Globe

Image 1



Political

Image 2



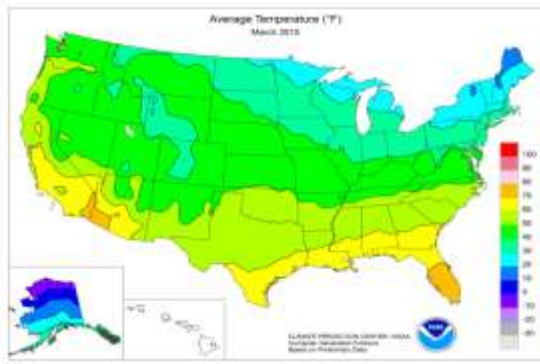
Topographic / USGS

Image 3



Topographic / USGS

Image 4



Climate

Image 5



Physical

Image 6



Road Map

Image 7



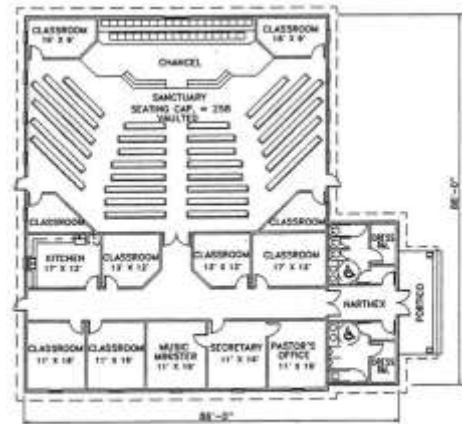
Site / Zoo

Image 8



Hiking

Image 9



FLOOR PLAN  
Floor Plan

Image 10

## Websites

Resources and maps to download: <https://www.usgs.gov/>

## Image Credits

- Image 1 <https://www.amazon.com/Edu-Toys-EDU36899A-Desktop-Political-11-Inch/dp/B00A7TSXWG>
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- Image 4 <https://nationalmap.gov/maps.html>
- Image 5 [http://www.cpc.ncep.noaa.gov/products/analysis\\_monitoring/regional\\_monitoring/1-month-archive.shtml](http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/regional_monitoring/1-month-archive.shtml)
- Image 6 <http://zoom-maps.com/page/united-stats-physical-map>
- Image 7 <http://ontheworldmap.com/usa/state/oklahoma/large-detailed-road-map-of-oklahoma.html>
- Image 8 <http://www.mobilemaplets.com/showplace/4168>
- Image 9 [http://farm4.static.flickr.com/3004/2310118361\\_4e529f39c9\\_b.jpg](http://farm4.static.flickr.com/3004/2310118361_4e529f39c9_b.jpg)
- Image 10 <http://daphman.com/church-floor-plans/steel-church-building-floor-plans-48.html>

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