

COMPASSES

AN INSTANT MEETING FOR PATHFINDERS FROM THE BC CAMPING COMMITTEE

Working with compasses provides girls with many learning experiences. Age appropriate activities allow them to develop their navigational skills while being challenged, but still having fun. The key to success in this area is explaining the basic concepts clearly, and repeating them often with a variety of games and activities.

Pathfinders

- Use a compass in combination with a map to determine bearings.
- Teach compasses to younger units.
- Set a trail using a compass.

Meeting Plan

- 5-10 min: Gathering: Compass Drawings
- 5 min: Opening Discussion
- 10-20 min: Compass Use – Theory
- 5-10min: Red Fred in the Shed
- 20 min: Compass Use – Practice
- 5-10 min: Cardinal Points
- 30-45 min: Create and Follow the Trail
- 5 min: Closing

120 minute meeting. Approximate activity times shown.

Program Connections

Let's Take it Outside: Finding Your Way

- 4. Use a compass

Let's Take it Outside: Out on the Trails

Compass navigation skills

Exploring a Theme: Secret Agent 007

- 4. Make a trail of signs or clues.

Meeting Supplies

- compass drawing directions
- pencils or markers
- compasses
- bean bags
- directions for Cardinal Points activity
- objects to mark start and end of trails

Compass Information

The red end of the compass needle points to the magnet North Pole.

Points on the Compass

N = 360 degrees NE = 45 degrees

E = 90 degrees SE = 135 degrees

S = 180 degrees SW = 225 degrees

W = 270 degrees NW = 315 degrees

How to Use a Compass

TO TAKE A BEARING IN THE FIELD

1. Hold compass level, in front of you, and point direction-of-travel line at desired object.
2. Rotate compass housing to align pointed end of declination arrow with red end of magnetic needle (red in the shed).
3. Read bearing at index line.

TO FOLLOW A BEARING IN THE FIELD

1. Set desired bearing at index line.
2. Hold compass level, in front of you, and turn your entire body, including your feet, until red end of magnetic needle is aligned with pointed end of declination arrow (red in the shed).
3. Travel in the direction shown by the direction-of-travel arrow.

Note: Never store your compasses in a metal container or stacked together (think of the magnet!)

Gathering: Compass Drawings

Directions

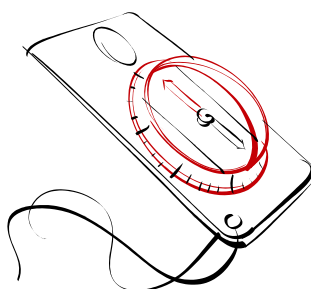
Print compass drawings from the BC Treasure Box.

<http://www.bc-girlguides.org/Documents/BC/program/TreasureBox2013-CompassDrawing.pdf>

For more of a challenge, have the girls create their own compass drawings and trade directions with each other.

Supplies

- printed compass drawings
- pencils or markers



Compass Use - Theory

Always go over the parts of a compass first, even with a group that has tried compasses before.

Supplies

- compasses

Directions

1. Hold the compass flat in your hand. Turn your whole body around in a circle as you watch the compass. What do you notice? The needle in the middle seems to move. Now try holding still and turning the compass slowly in your hand, leaving it flat. The needle seems to want to keep pointing in one direction as the compass turns around it. Depending on the age of the group, you may need to stop and discuss where north is and what magnets are.
2. Here's the part that they will all remember – when using a compass in the real world, remember to put Red Fred in the Shed. The red end of the magnetic needle, which points to north, is Red Fred. The orienting arrow, which is drawn on the bottom of the compass and turns with the housing, is the Shed.
3. Remind them that when walking paces it is just a regular walking step.
4. Remember all girls learn differently so it is best to have a teaching compass (could be an example of a compass made from construction paper) or compasses for each girl to learn on.
5. Have the girls all find the basic directions plus the intercardinal directions. (Leaders to check that all girls are finding the basic directions correctly. If not, provide some one-on-one teaching). For advanced compass users, have them find degrees. Remember to challenge them but not to overwhelm them.

Red Fred in the Shed

Try this activity to demonstrate the importance of your starting point.

Supplies

- compasses
- optional: red stuffed animal

Directions

1. Place an object, such as a red stuffed animal, a chair, a rock or a tree (at the park) into the middle of your space. Have the girls form a circle around the object.
2. Have everyone keep still and turn the housing of the compass until Red Fred is in the Shed.
3. Now have everyone read off their numbers. Girls might be tempted to give the same number like their friends' because their number is different. But all the numbers are supposed to be different. Compasses only tell you which direction to go relative to a starting point.

Compass Use - Practice

Do this activity in a large space – either outdoors or in a large meeting space.

Supplies

- compasses
- beanbags

Directions

1. Divide the girls into groups of 4. Each girl becomes one direction (“N”, “E”, “S”, and “W”). Each group receives one compass and one beanbag. Additional compass directions such as NW, SE, or degree bearing could be used for the more experienced girls.

2. One girl from each team throws the beanbag as far as she can in her assigned direction. The team then runs to find the beanbag. The second girl then sets the compass in the spot where the beanbag was found, stands to face her given direction and throws the beanbag. The game continues in this way.
3. Make sure leaders are circulating to ensure that the girls are using their compass properly. Each girl should have at least 2-3 turns before moving onto the next activity.

Cardinal Points

Do this activity in a large space – either outdoors or in a large meeting space.

Directions

1. To be done individually or in small groups of 2-3. Each girl/group needs something to mark their starting spot with and a compass.
2. Each girl/group selects a starting point and places a marker (water bottle, rock, etc.). They then follow these instructions: (print the directions, enough for each girl/group)

Walk 5 paces to the north, stop

Walk 10 paces to the West, stop

Walk 20 paces to the south, stop

Walk 15 paces to the east, stop

Walk 15 paces to the north, stop

Walk 5 paces to the west, stop. At this point, look down on the ground. Where are you?
(Girls should be back at their starting point.)

Supplies

- compasses
- something to mark points with (rock, etc.)
- printed directions

Create and Follow the Trail

Directions

1. Divide the girls into in small groups of 2-4 girls.
2. Each group needs a compass, paper and pencil.
3. Each group marks their starting point then makes up a trail as they go (example: 25 steps N, 40 steps SW, etc.)
4. When finished their trail, place a 2nd object to mark the end of the trail.
5. Switch directions with another group and see if they can follow the trail.
6. For more fun, try it in the dark!

Supplies

- compasses
- paper & pencils
- objects to mark start and end of the trail