

# ORIENTEERING AT BRIGHTON WOODS

- There are eight numbered posts (controls) for the orienteering course at Brighton Woods. Each has a number that corresponds to the number on the Brighton Woods Orienteering Map, but they may be found in any order.
- It is easier to go directly from control to control when there is less ground cover: late fall, winter, and early spring. Long pants are recommended because of the poison ivy and ticks.

## 1. NUMBERED CONTROL DESCRIPTIONS

1. Sports Field
2. Southwest End of Pipeline Clearing
3. Amphitheater
4. The Bridge
5. Head of Trail
6. Rock Outcropping
7. River
8. Northeast End of Pipeline Clearing

## 2. PLOTTING THE COURSE

- Find control #1 on the map. (The Sports Field.)
- On the map, line up one edge of the compass from where you are (Control #1: Sports Field) to where you want to go, (Control # 2: Southwest End of Pipeline Clearing) making sure the direction-of-travel arrow faces your destination point. (This is the first secret of orienteering.)
- Rotate the housing of the compass so that the gridlines are parallel to the North - South gridlines on the orienteering map. The cardinal point N must be at the North side of your map. (This is the second secret to orienteering.)
- Read your bearing in degrees at the Bearing Index. (At the Direction-of-Travel line, or the "Read Bearing Here" mark.) The number of degrees is \_\_\_\_\_ .\*
- Do not rotate the housing again until you need a new bearing!

### 3. FINDING THE FIXED CONTROLS

- Stand directly in front of the control #1 and hold your compass level and squarely in front of your body.
- Turn your body so that the compass needle floats directly on top of the orienting arrow.
- Look in the distance where the Direction-of-Travel Arrow is pointing.  
Do you see control #2? If not, check the accuracy of your method.

### 4. HELPFUL HINTS

- At the control #1, control #2 is visible. The remaining controls are not within site of each other.
- Use the compass bearing that you determine from the map before resorting to landmarks such as buildings. The unit symbols on the map are meant to help you determine the general area.
- If a unit on your way to the next control is occupied, ask permission to enter, or walk around the unit.
- Provide each team with a copy of the orienteering map. Each team can decide the best order to find the numbered controls.

### 5. MEASURING YOUR PACE

- Pace is the distance you walk every time you put the same foot down.  
2 steps = 1 pace
- Measure 100 feet and walk from end to end, counting every pace. For example, starting on your right foot means you count every time your left foot hits the ground.
- The length of the distance divided by the number of paces is the number of feet in your pace.

$$\frac{100 \text{ feet}}{20 \text{ paces}} = 5 \text{ feet per pace}$$

\* Number of degrees, or compass bearing, is approximately 212

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## CAMP BRIGHTON WOODS

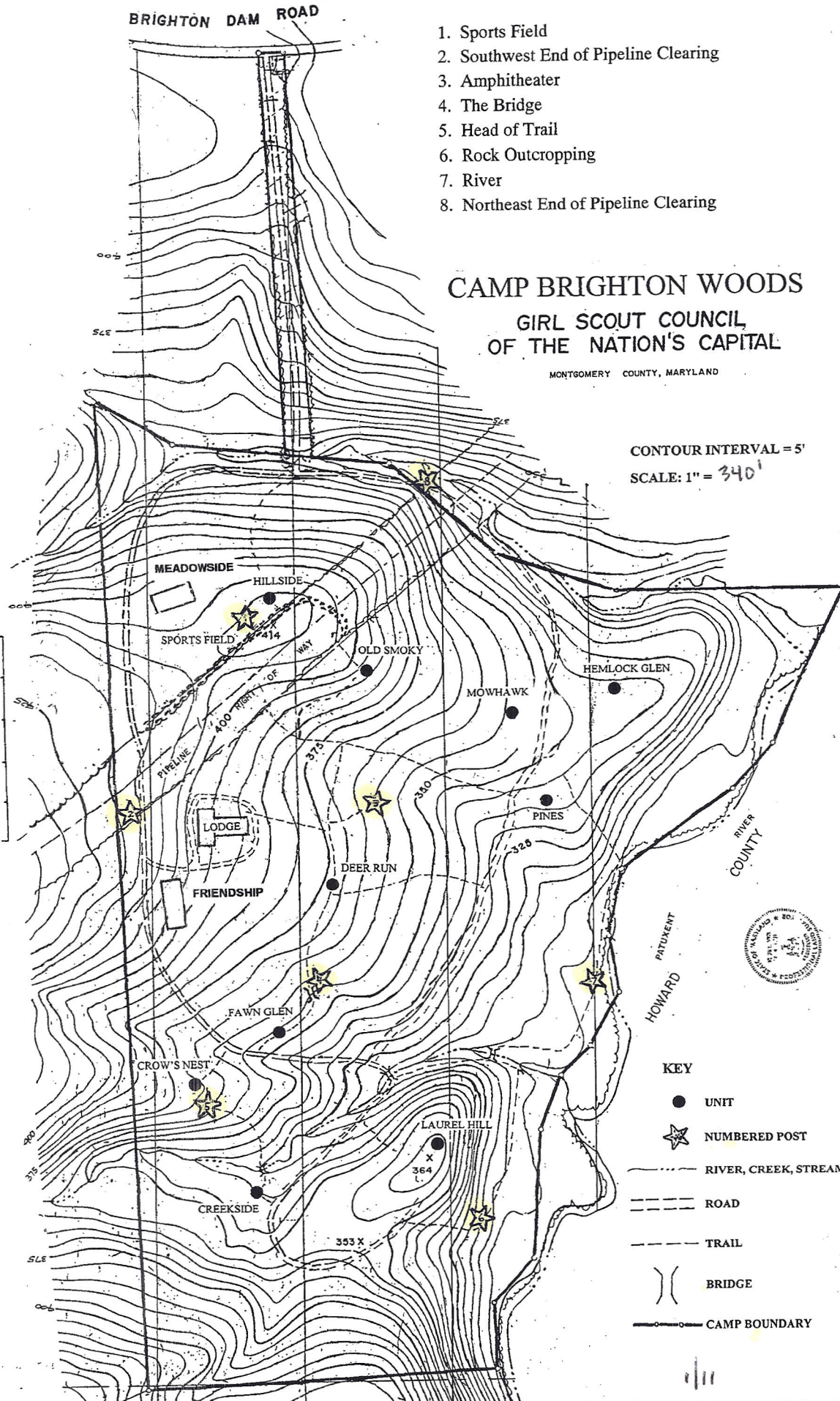
GIRL SCOUT COUNCIL  
OF THE NATION'S CAPITAL

MONTGOMERY COUNTY, MARYLAND

CONTOUR INTERVAL = 5'

SCALE: 1" = 340'

N



### KEY

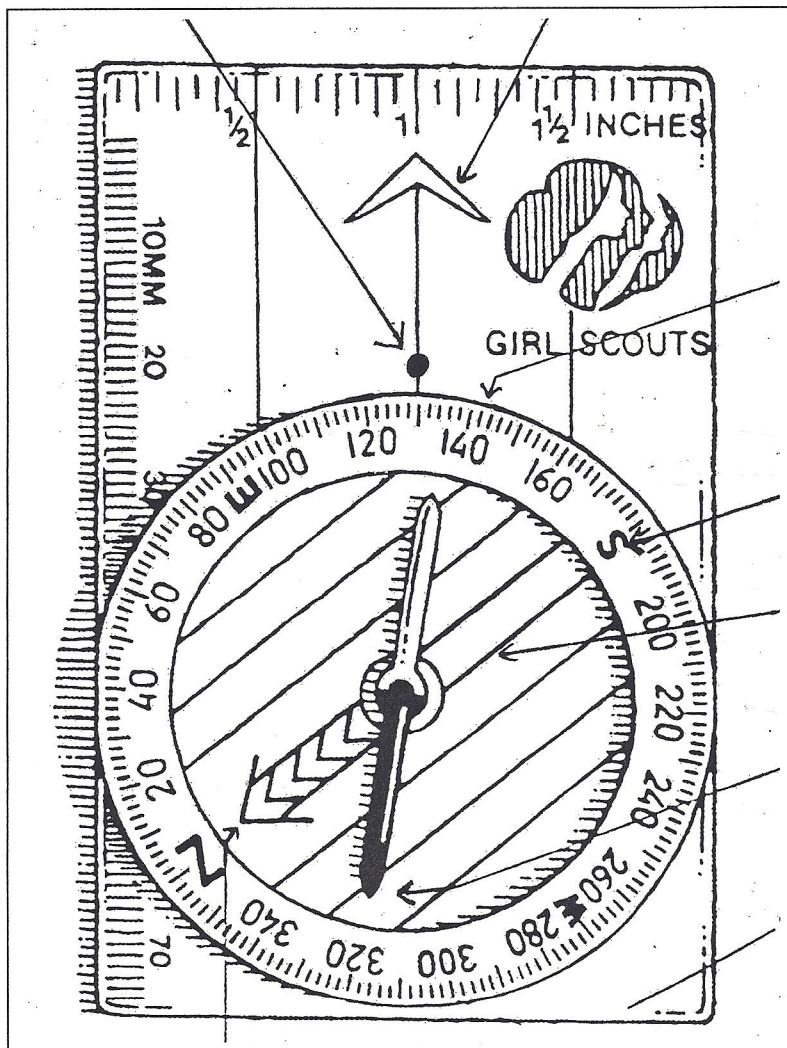
- UNIT
- ★ NUMBERED POST
- RIVER, CREEK, STREAM
- - - ROAD
- · - · - TRAIL
- ( ) BRIDGE
- CAMP BOUNDARY



# Parts of an Orienteering Compass

Bearing Index

Direction-of-Travel Arrow



Compass Housing

Cardinal Points

Orienting Lines

Magnetic Needle

Transparent Base

Orienting Arrow

## ORIENTEERING DEFINITIONS

**BEARING:** The degree reading of the compass, when the magnetic needle is pointing North.

**BEARING INDEX:** The point on the compass at which you read the bearing.  
Marked various ways on different compasses: a simple notch, the "Read Bearing Here" point, or where a single Direction-of-Travel arrow meets the compass housing.

**CARDINAL POINTS:** North, East, South, West.

**COMPASS HOUSING:** The circular, rotating compass rose.

**COMPASS ROSE:** The circle of the 360 degrees of the compass.

**CONTOUR INTERVAL:** The amount of elevation between adjacent lines on a topographic map.

**CONTROL:** The marker/post to find when orienteering.

**DECLINATION:** The difference between true north and magnetic north.

**DIRECTION-OF-TRAVEL ARROW:** The fixed arrow on one end of the compass that points the way you intend to travel.

**MAGNETIC NEEDLE:** The floating needle that points to magnetic north.

**MAGNETIC NORTH:** The direction the magnetic needle will point, although rarely toward true north.

**ORIENTEERING:** The skill of finding a series of controls in a designated area using map and compass skills. Often a competitive exercise.

**ORIENTING ARROW:** The fixed arrow, sometimes an outline, inside the compass housing that rotates when the housing is rotated.

**ORIENTING LINES:** The parallel lines inside the compass housing.

**ORIENT THE COMPASS:** Rotate the compass, not the housing, so that the magnetic needle is over the orienting arrow.

**TRANSPARENT BASE:** The clear base of the compass, through which one can see the orienteering map.



# Orienteering: Safety Activity Checkpoints\*

Orienteering is an activity that involves using a map, compass, and navigational skills to find your way around or across an unfamiliar area, and may also incorporate camping, backpacking, hiking, cross-country skiing, or horseback-riding skills. Orienteering often takes place in the wilderness, although events can take place in just about any terrain such as a beach, urban area, or park. Orienteers often use control markers to flag various land features found on the map, serving as checkpoints along a course.

Orienteering is not recommended for Girl Scout Daisies and Brownies, but they may enjoy pre-orienteering activities such as "introduction to maps" and map-drawing.

**Caution:** Girls are not allowed to use firearms unless 12 years and older and with council permission; girls are never allowed to hunt or go on high-altitude climbs. Girls are also never allowed to ride all-terrain vehicles or motor bikes.

**Know where to go orienteering.** Connect with your Girl Scout council for site suggestions. Also, locate orienteering clubs in the U.S. and Canada at [us.orienteering.org](http://us.orienteering.org).

**Include girls with disabilities.** Communicate with girls with disabilities and/or their caregivers to assess any needs and accommodations. Learn more about the resources and information that organizations such as *Global Explorers* provide.

## Orienteering Gear

### Basic Gear

- ♦ Long pants
- ♦ Hiking boots or sneakers
- ♦ Sunscreen with SPF of at least 15 on sunny days
- ♦ Insect repellent
- ♦ Sunglasses and/or hat
- ♦ Daypack to carry personal belongings

### Specialized Orienteering Gear

- ♦ Orienteering map
- ♦ Compass
- ♦ Emergency signaling whistle
- ♦ Watch

## Prepare for Orienteering

- ♦ Coordinate age-appropriate activity. Girl Scout Juniors in small groups are accompanied on a course by an adult with basic instruction in orienteering. Girl Scouts Cadettes, Seniors, and Ambassadors who have received training may orienteer in groups of at least two people. Competitive Orienteering Courses often require participants to operate independently; solo competition is not recommended for inexperienced girls or Girl Scout Juniors. However, Girl Scout Cadettes, Seniors, and Ambassadors whose skills match or exceed the demands of the course may participate in such competitions. As with all orienteering sites, there should be a clear area of safety (a safety lane), a specific finish time and location, and a search-and-rescue procedure designed by the competition's host and the Girl Scout adult volunteer.
- ♦ Communicate with council and parents. Inform your Girl Scout council and girls' parents/guardians about the activity, including details about safety precautions and any appropriate clothing or supplies that may be necessary. Follow council procedures for activity approval, certificates of insurance, and council guidelines about girls' general health examinations. Make arrangements in advance for all transportation and confirm plans before departure.
- ♦ Girls plan the activity. Keeping their grade-level abilities in mind, encourage girls to take proactive leadership roles in organizing details of the activity.
- ♦ Arrange for transportation and adult supervision. The recommended adult-to-girl ratios are:

|   |  |
|---|--|
| Two non-related adults (minimum of one female) for:         | Plus one adult to each additional:                   |
| ♦ 6 Girl Scout Daisies (pre-orienteering activities only)   | ♦ 4 Girl Scout Daisies (pre-orienteering activities) |
| ♦ 12 Girl Scout Brownies (pre-orienteering activities only) | ♦ 8 Girl Scout Juniors                               |
| ♦ 16 Girl Scout Juniors                                     | ♦ 10 Girl Scout Cadettes                             |
| ♦ 20 Girl Scout Cadettes                                    | ♦ 12 Girl Scout Seniors                              |
| ♦ 24 Girl Scout Seniors                                     | ♦ 12 Girl Scout Ambassadors                          |
| ♦ 24 Girl Scout Ambassadors                                 |  |

\* [http://www.gscnc.org/activity\\_checkpoints.html](http://www.gscnc.org/activity_checkpoints.html)

- ♦ Verify instructor knowledge and experience. Participants receive instruction from a person experienced in orienteering before navigating an orienteering course. First-timers participate on a beginner-level course. Girls with previous topographic map-reading experience may be eligible to attempt an advanced beginners' course.
- ♦ Compile key contacts. Give an itinerary to a contact person at home; call the contact person upon departure and return. Create a list of girls' parents/guardian contact information, telephone numbers for emergency services and police, and council contacts—keep on hand or post in an easily accessible location. Before the activity starts, make a list of all participants' cell-phone numbers, and give every orienteer a copy of the list.
- ♦ Select a safe orienteering site. Whenever possible, girls take part in a meet organized by an orienteering club. When other areas are used, check for the following: the site selected is a park, camp, or other area with a good trail network; proper landowner permission is secured to use the site; during hunting season, the orienteering site is in a "no hunting" area with sufficient separation from hunting activity to ensure no accidental contact between hunters and orienteers; out-of-bounds and dangerous areas are marked on the map; hazardous obstacles are marked on the ground—they are surrounded by surveyor's tape or a similar marking; the orienteering map is sufficiently accurate so that the participants are not navigationally misled.
- ♦ Prepare for emergencies. Ensure the presence of a waterproof first-aid kit and a first-aider with a current certificate in First Aid, including Adult and Child CPR or CPR/AED; if any part of the activity is located 60 minutes or more from emergency medical services, ensure the presence of a first-aider (level 2) with Wilderness and Remote First Aid. See *Volunteer Essentials* for information about first-aid standards and training.

### **On the Day of Orienteering**

- ♦ Get a weather report. On the morning of the activity, check *weather.com* or other reliable weather sources to determine if weather conditions are appropriate, and make sure that the ground is free of ice. If severe weather conditions prevent the activity, be prepared with a backup plan, alternative activity, or postpone the activity. Write, review, and practice evacuation and emergency plans for severe weather with girls. In the event of a storm with lightning, take shelter away from tall objects (including trees, buildings, and electrical poles). Find the lowest point in an open flat area. Squat low to the ground on the balls of the feet, and place hands on knees with heads between them.
- ♦ Use the buddy system. Divide girls into teams of two. Each person is responsible for staying with her buddy at all times, warning her buddy of danger, giving her buddy immediate assistance if safe to do so, and seeking help when the situation warrants it. If someone in the group is injured, one person cares for the patient while two others seek help.
- ♦ Follow basic orienteering safety standards. Each participant is given a specific time limit to complete the course and must check in at the finish area whether or not she completed the course. Beginning and finishing course times of each participant are carefully noted to ensure that all participants have returned. Girls take proper precautions in areas where poisonous plants or snakes or ticks are prevalent.

### **Orienteering Link**

- ♦ U.S. Orienteering Federation: [www.us.orienteering.org](http://www.us.orienteering.org)

### **Orienteering Know-how for Girls**

- ♦ Map your course. Get to know map symbols and how elements such as elevation and relief are communicated on maps at *4orienteering.com*.
- ♦ Learn about orienteering techniques. Before participating in orienteering, get to know strategies such as pacing, thumbing, and handrails at *4orienteering.com*.

### **Orienteering Jargon**

- ♦ Control: A point on an orienteering course that participants have to visit, and is marked on a map with a circle; controls are typically flagged with a marker or flag
- ♦ Elephant track: A path created by trampling of orienteers using the same route

## COMPASS GAME THREE - LEGGED GAME

1. Place a small object on the ground at your feet.
2. Set your compass for an arbitrary bearing between  $0^\circ$  and  $120^\circ$ . (Say,  $40^\circ$ )
3. Hold the compass properly (Direction of Travel Arrow away from you) and then move your body until the compass needle is housed (when the compass needle lies over the orienting arrow).
4. Find a landmark, and walk "x" number of steps (say, 5).
5. Stop, look at your compass. Add  $120^\circ$  to your original bearing. ( $120+40=160$ ) Reset your compass housing to a bearing of that number.
6. Walk the same number of steps in the new direction.
7. Stop, look at your compass. Add  $120^\circ$  to your second bearing. ( $120+160=280$ ). Reset your compass housing to that bearing.
8. Walk the same number of steps in the third direction.
9. Lean over, and pick up your small object.

## COMPASS GAME

## STEPPING OUT

Place the following combinations of directions on 10 cards WITHOUT the answers!

In buddies, have girls "draw" the patterns of the bearings on the ground using yarn, string. Great activity in the sand on a beach!

|    |         |             |
|----|---------|-------------|
| A. | 2 steps | $360^\circ$ |
|    | 2 steps | $90^\circ$  |
|    | 2 steps | $180^\circ$ |
|    | 2 steps | $270^\circ$ |



|    |         |             |
|----|---------|-------------|
| B. | 6 steps | $360^\circ$ |
|    | 6 steps | $120^\circ$ |
|    | 6 steps | $240^\circ$ |



|    |         |             |
|----|---------|-------------|
| C. | 1 step  | $360^\circ$ |
|    | 2 steps | $120^\circ$ |
|    | 1 step  | $360^\circ$ |
|    | 2 steps | $240^\circ$ |



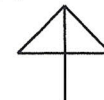
|    |         |             |
|----|---------|-------------|
| D. | 2 steps | $30^\circ$  |
|    | 1 step  | $270^\circ$ |
|    | 2 steps | $150^\circ$ |
|    | 1 step  | $270^\circ$ |



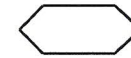
|    |         |             |
|----|---------|-------------|
| E. | 2 steps | $360^\circ$ |
|    | 1 step  | $140^\circ$ |
|    | 1 step  | $40^\circ$  |
|    | 2 steps | $180^\circ$ |



|    |         |             |
|----|---------|-------------|
| F. | 2 steps | $360^\circ$ |
|    | 1 step  | $150^\circ$ |
|    | 2 steps | $270^\circ$ |
|    | 1 step  | $30^\circ$  |



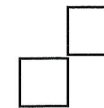
|    |         |             |
|----|---------|-------------|
| G. | 1 step  | $330^\circ$ |
|    | 1 step  | $30^\circ$  |
|    | 2 steps | $90^\circ$  |
|    | 1 step  | $150^\circ$ |
|    | 1 step  | $210^\circ$ |
|    | 2 steps | $270^\circ$ |



|    |         |             |
|----|---------|-------------|
| H. | 2 steps | $40^\circ$  |
|    | 2 steps | $140^\circ$ |
|    | 1 step  | $270^\circ$ |
|    | 2 steps | $40^\circ$  |
|    | 2 steps | $140^\circ$ |



|    |         |             |
|----|---------|-------------|
| I. | 1 step  | $360^\circ$ |
|    | 2 steps | $90^\circ$  |
|    | 1 step  | $360^\circ$ |
|    | 1 step  | $270^\circ$ |
|    | 2 steps | $180^\circ$ |
|    | 1 step  | $270^\circ$ |



|    |         |             |
|----|---------|-------------|
| J. | 2 steps | $360^\circ$ |
|    | 1 step  | $140^\circ$ |
|    | 1 step  | $360^\circ$ |
|    | 1 step  | $140^\circ$ |
|    | 2 steps | $360^\circ$ |



\* Feel free to allow your girls to create new patterns to share.