

Magnetic Needle

Place the compass on a flat surface away from any other magnets or metal objects, watch the Magnetic Needle move to point North. The needle is drawn to the magnetic north pole. When the needle stops moving, turn the Degree Dial so that the Orientation Arrow and the Needle line up (diagram 1).

The Degree Dial

This black ring shows North, South, West, and East in a 360° circle. Each line is 5° apart. Point the Directional Arrow in the direction you are going, as long as the Magnetic Needle stays lined up with the Orientation Arrow, the Bearing will tell you which way you are traveling. The compass in diagram 1 is pointing 60° North, East.

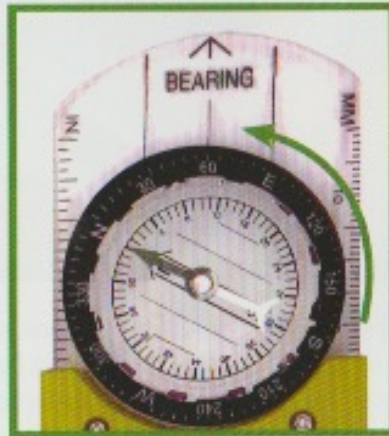
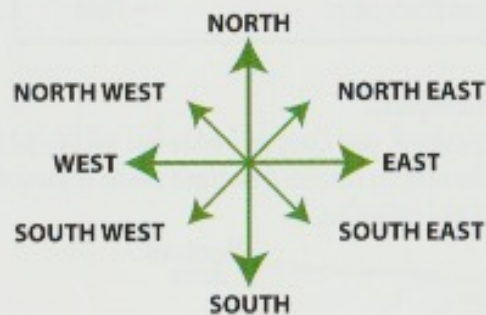


Diagram #1

See how the two arrows line up.



Diagram #2

Setting Up A Treasure Hunt

Your Navigator Note Pad has graph paper you will use to make a map.

Making your map

1. First you will need to find a fun and safe location to plan out your map like your backyard. Start by using your compass to find north, mark it on the side of your map as in diagram 2.
2. Look around and pick up to 5 landmarks to start your map, something in your environment that stands out like signs, trees or benches. Choose one as your starting zone and mark it on your map with a small drawing.
3. Walk around and count how many steps it takes to get to each landmark. See this map of a local park with the North direction in diagram #3. Example: It is about 40 paces from the starting point to the first table.

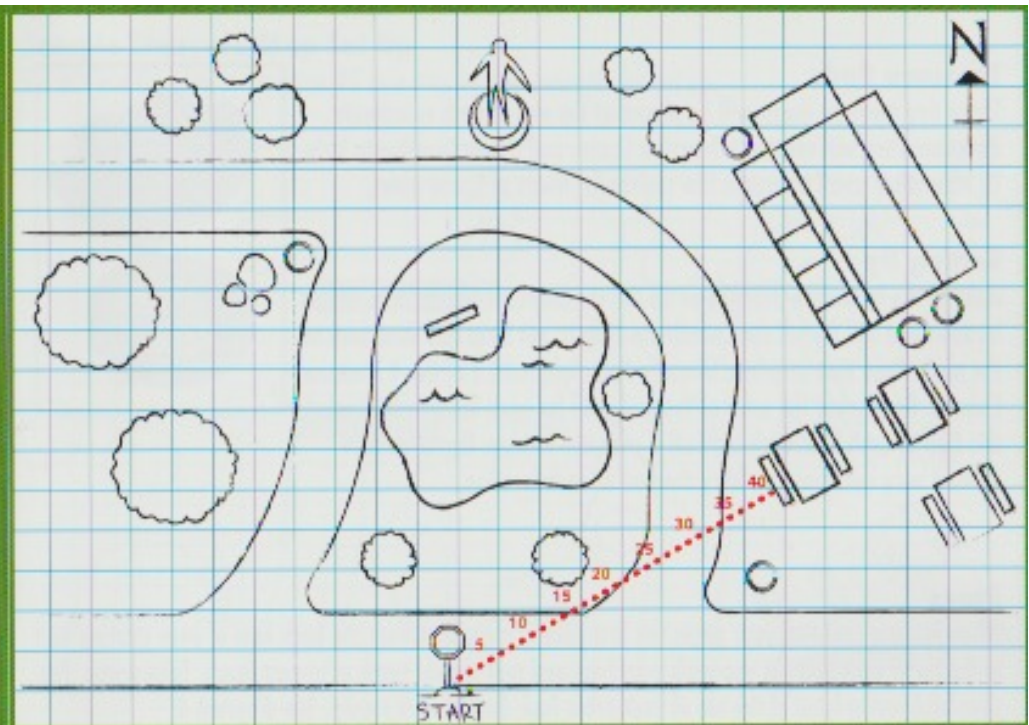


Diagram #3

Coordinate Strips

These strips will give directions for the treasure hunter to follow with the compass. Use the compass and the map to plan out the hiding spots for the Treasure Pods. Tear off the first strip and write in the direction from the starting point to the first landmark. Write the direction first then the number of paces. If from Start to the first bench is 60° North East you would write 60° NE 40P.



60° NE 40P

Treasure Pods

These tiny treasure chests will be placed at the end of each coordinate direction. They will contain a Treasure Charm and a new Coordinate Strip. Or hide other small treasures like sea shells, treats or funny notes.



Setting Up

Head to the landmark destination on the starting Coordinate Strip. At this location you will fill out the Coordinate Strip to get from this landmark to the next. Place that strip in a Treasure Pod along with 1 of the 4 Treasure Charms. Remember the color of the pod used for each landmark. Repeat this step at each landmark until all 4 pods are hidden. If you want to make it very hard you can bury the pod at each location.

Paces

When you are counting your paces the first pace is measured from the back heel of your starting foot to the tip of your toes. As you walk your heel and toes should touch or almost touch. Take a step. Put your heel just in front of the toe of your other foot. Each step is 1 pace. See diagram 4.

Check with a friend how different your paces are from hers. She may need to adjust her pace to match yours when using the map.

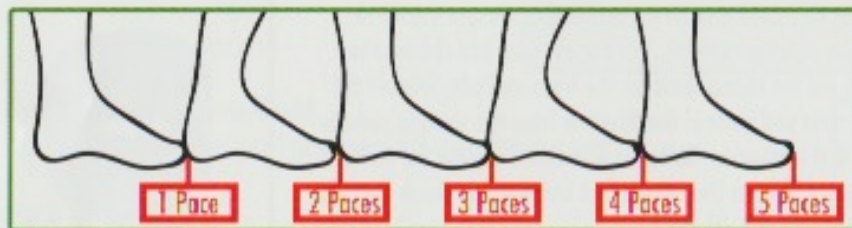


Diagram #4

Different people have different paces. Tall people have a bigger pace than shorter people. Test your pace with your friend. They may need to adjust their steps to match your pace. For example take 10 paces and have your friend count how many paces it takes them to reach you from the same starting point. If it only takes them 8 paces then they will only need to take 8 paces for every 10 paces on the map.

Sample Treasure Map Set Up

We will use the map in Diagram #5 as a step by step example for set up.

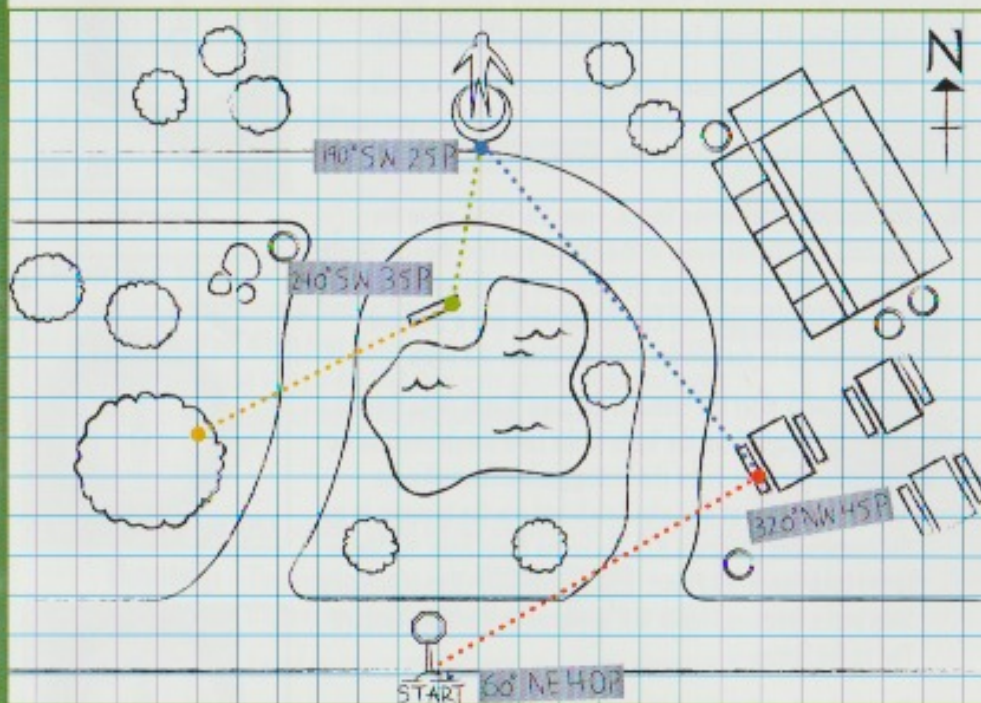


Diagram #5

1. Draw your map completely and indicate which direction is North.
2. Pick the landmarks where you will put your treasure pods. Don't indicate on the map where the pods are! That would ruin the fun.
3. Choose a starting point and then make a coordinate strip (Find the direction on the compass and pace out the distance.) to Pod #1.
4. Now make a strip to get to the next pod in the same way. (Hide the strip in the previous pod.)

Example of Treasure Hunt Play

Lets go through all the steps of setting up a treasure hunt!

1. The Stop Sign at the edge of the park is the chosen starting point because the park is directly North of it. This location does not get a Treasure Pod, the treasure hunter will get the Starting Coordinate Strip here. Draw the Stop Sign on the map at the edge so you will have enough space to draw in the other landmarks.

- The Table to the North West is the first Treasure Pod location. Point the Directional Arrow at the Table and using the steps we learned in the **Using Your Compass** section, we find that the Table is 60° North East of the Stop Sign (Diagram #5).
- From the Stop Sign, count how many paces it takes to walk to the Table. Now you have the direction and the paces, you can fill out the Starting Coordinate Strip. 60° NE 40 P
- The next landmark is the Statue. From the Table, point the compass Directional Arrow at the Statue and find the coordinates (Diagram #6). Now walk to the Statue to get the pace count, 45 Paces. 320° NW 45 P This Coordinate Strip and a Treasure Charm will go in the Orange Treasure Pod at the Table.
- The landmark after the Statue is the Lake Bench. Note that we didn't go straight from the Statue to the Lake Bench because we can't cross the lake. From the Statue, we aim the compass Directional Arrow at the Lake Bench and use the compass to get the coordinates (Diagram #7). Count the Paces from the Statue to the Lake Bench, 25 Paces. 190° SW 25 P This Coordinate Strip and a Treasure Charm will be placed in the Blue Treasure Pod at the Statue.
- The last landmark is from the Lake Bench to Big Tree. Use your compass to find the coordinates and count the paces to the Big Tree (Diagram 8). Fill out the Coordinate Strip. 240° SW 35 P We will place the yellow Treasure Pod with Treasure Charm at the Big Tree now since it will not need a coordinate strip. Head back to the Lake Bench and place the Coordinate Strip and a Treasure Charm in the green Treasure Pod. Now all the Treasure Pods are placed and we have the starting Coordinate Strip and the Treasure Map with all the main landmarks filled out.
- Fill in the map with other landmarks that were not used to hide Treasure Pods. You do not have to count the paces for these landmarks. For example, the lake was not used, but we have a good idea how it will fit in the map based on Lake Bench, Statue and Table.



Diagram #5



Diagram #6



Diagram #7

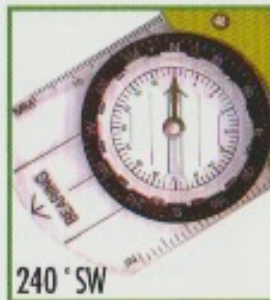


Diagram 8

Let The Hunt Begin

It's time to test out your Treasure Map. Teach a friend or family member what you just learned or have them read this Activity Guide. Give them your Map, Compass Tracker and the first Coordinate Strip. Let them find North.

- If they stray too far off the path, bring them back to the last landmark and make sure they are using the compass correctly.



Check The Stack

Each time the treasure hunter finds a Treasure Pod they should stack it on top of the last Pod. When they have found all 4 Pods and return, check that the pods are in the same order that they were placed when you made your map. This will show that they followed the map correctly.



Terminology

- Azimuth ring:** The original name for the Degree Dial on the compass.
- Bearing:** The direction from one position to another position. A bearing is stated in degrees and falls into a set range from 0 to 360.
- Contour Lines:** Found on topographical maps to indicate elevation of the land.
- Degree:** A unit for measuring an angle or an arc of a circle. A circle is divided into 360 degrees.
- Index Line:** The point on a compass where the directional Arrow meets the Degree Dial (Azimuth ring). At this point the degree reading should be read to establish a bearing.
- Latitude:** The distance in degrees north and south from the equator. The horizontally lines around the globe.
- Longitude:** The distance in degrees east and west from the Prime Meridian. These lines run vertically around the globe.
- Magnetic Needle:** The compass needle that points at magnetic north.
- Navigate:** To plan a route for travel. Mainly with ships and vehicles.
- Waypoint:** A checkpoint used as a point of reference on a journey. Used mainly in electronic navigation.

