Volusia Young Marines

N

W E

COMPASS

GAMES AND ACTIVITIES

- ☑ Navigation Skills
- ☑ Team Games
- ☑ Hands-On Activities
- ☑ Map & Compass Practice
- ☑ Fun Challenges

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USING A LENSATIC COMPASS

PARTS OF A LENSATIC COMPASS



- **Base:** The main body housing the floating dial and glass crystal.
- **Cover:** The metal lid with a vertical sight wire used to line up targets.
- **Lens Bracket (Rear Sight):** A fold-out eyepiece containing a magnifying lens to read the degree numbers while sighting.
- **Bezel Ring:** The outer ring that rotates with distinct clicks (each click is usually 3 degrees).
- **Thumb Loop:** A small metal loop on the bottom used to steady the compass.



METHOD 1: THE CENTER-HOLD TECHNIQUE (FAST & EASY)

BEST FOR:
General day-to-day use and quick readings.



STEPS:

1. Open the compass so the cover and base form a straightedge (180 degrees).
2. Fold the lens holder back to about 90 degrees so the dial moves freely.
3. Slip your thumb through the thumb loop.
4. Rest the base of the compass on your thumb and line up your index finger along the side of the compass.
5. Pull your elbows tightly against your sides, holding the compass flat at waist or stomach level.
6. Turn your entire body to point the compass cover directly at your target landmark.
7. Look down at the dial to read your azimuth (bearing).



METHOD 2: THE COMPASS-TO-CHECK TECHNIQUE (HIGH PRECISION)

BEST FOR:
Long-distance or exact line-of-sight targets.



STEPS:

1. Open the cover perpendicular (90 degrees) to the base and tilt the lens bracket about 30 degrees.
2. Put your thumb through the thumb loop and rest the compass on your bent index finger.
3. Raise the compass up to eye level.
4. Look through the slit in the lens bracket, align the vertical sight wire with your distant target, and look down through the magnifying lens to read the exact degree measurement on the inner dial.



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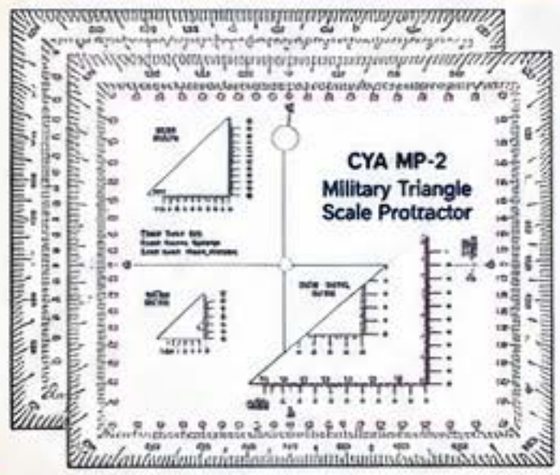
USING A MILITARY MAP PROTRACTOR

WHAT IS A MILITARY MAP PROTRACTOR?

A tool used on a map to find locations (MGRS coordinates) and measure directions (azimuths) accurately.



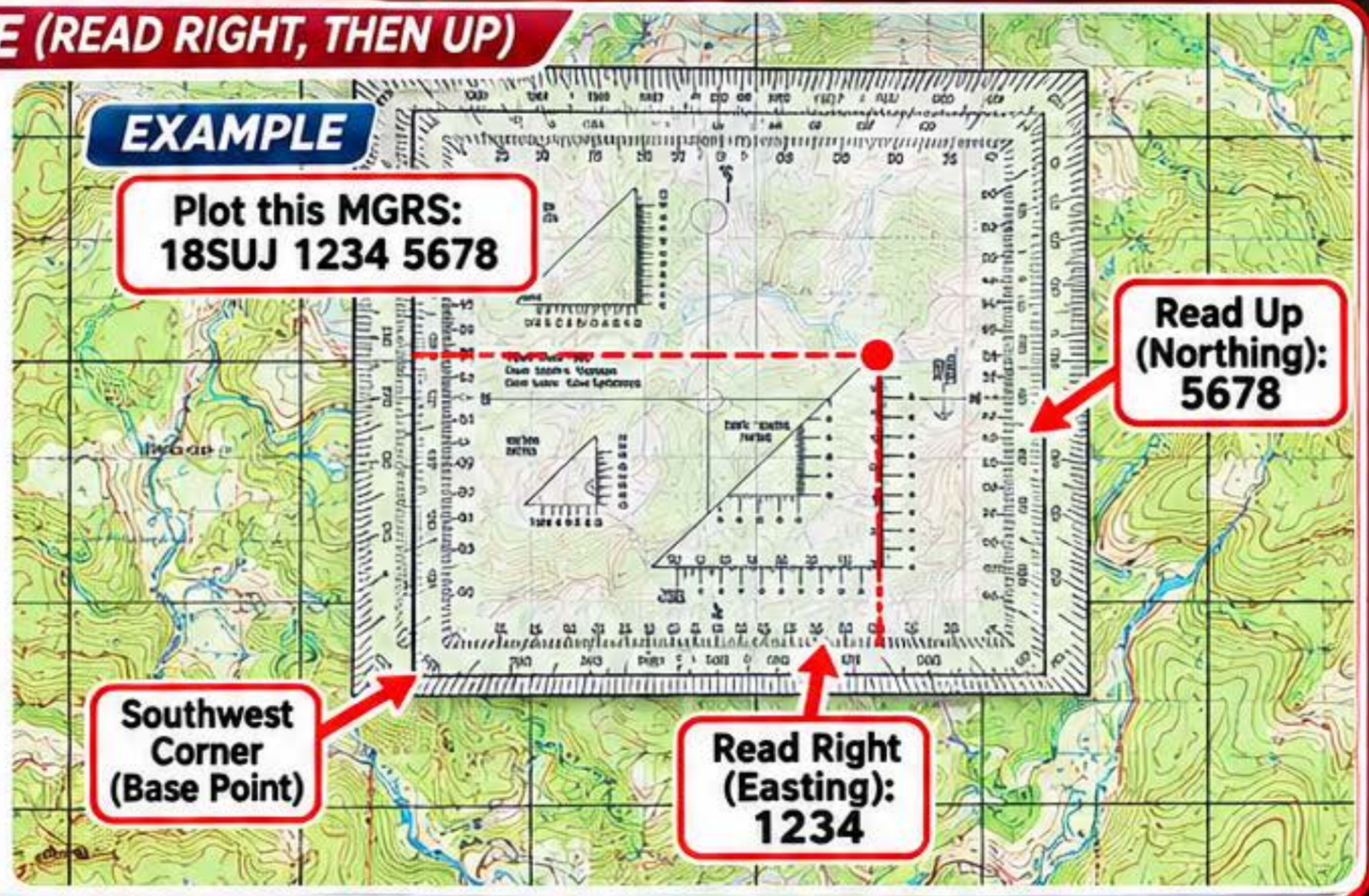
THE MILITARY MAP PROTRACTOR



- Used with a topographic map.
- Helps you plot MGRS coordinates.
- Measures azimuths (directions) in degrees or mils.
- Has horizontal and vertical scales that align with the map's grid lines.

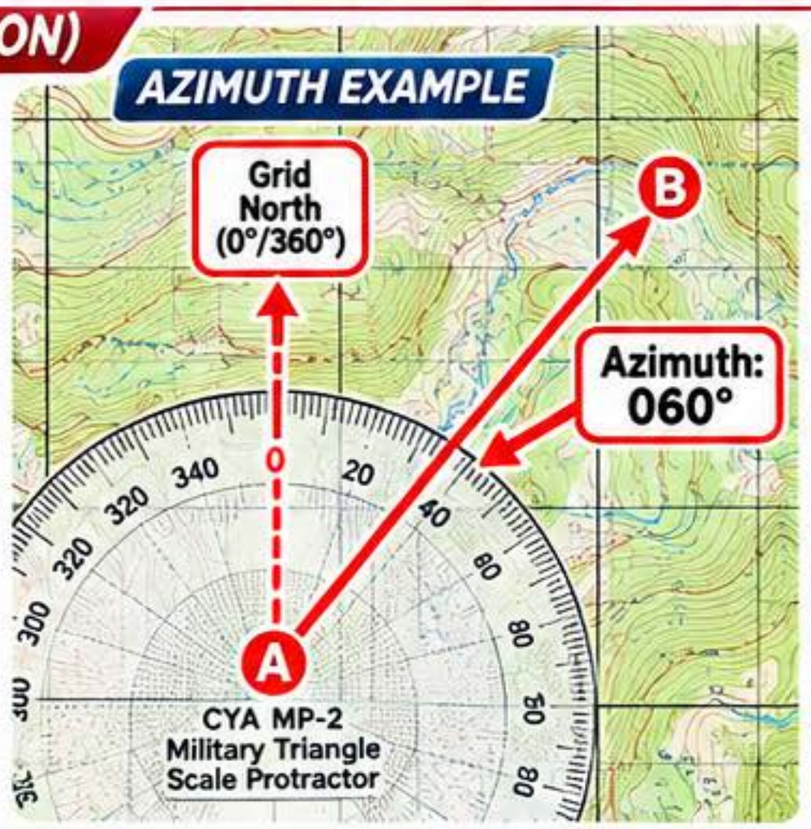
HOW TO PLOT AN MGRS COORDINATE (READ RIGHT, THEN UP)

1. **Identify the grid square:** Look at the first part of your grid reference (the 100,000-meter square identifier, like 18SUJ) and find the specific 1,000-meter grid square on your map.
2. **Find the southwest corner:** Locate the bottom-left (southwest) corner of that grid square. The numbers of the vertical and horizontal grid lines intersecting at that corner give you your base coordinates.
3. **Align the protractor:** Place the square/zero corner (or origin) of your military protractor directly on the bottom-left corner of that grid square.
   - Ensure the horizontal scale is flush with the bottom grid line and the vertical scale is flush with the left grid line.
4. **Read Right (Easting):** Slide the protractor to the right along the bottom grid line until the vertical scale tick-mark or edge meets your target point. Read the number on the horizontal scale.
5. **Read Up (Northing):** From that position, look up the vertical scale until it hits the target point. Read the number on the vertical scale.
6. **Mark the point:** Make a dot on the map at the inner corner or cross-hair of the protractor scale corresponding to those numbers.



HOW TO MEASURE AN AZIMUTH (DIRECTION)

1. **Draw a line:** Use a straight edge of your protractor to draw a straight pencil line from your starting point (A) to your destination (B), extending the line past a vertical grid line.
2. **Center the protractor:** Place the center hole or index mark of the protractor directly over the spot where your drawn line crosses a north-south grid line on the map.
3. **Align to Grid North:** Rotate the protractor so the 0° (or 360°) mark points straight up along the north-south grid line, and the baseline of the protractor is square with the grid.
4. **Read the value:** Look at where your drawn line intersects the outer degree scale (0° to 360°) or the mil scale (0 to 6400 mils) on the edge of the protractor.
5. **Apply G-M Angle:** If high precision is needed in the field, adjust your grid azimuth to a magnetic azimuth by factoring in the Grid-Magnetic (G-M) angle found in the margin of your topographic map.





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HOW TO MAKE A COMPASS AT HOME

PURPOSE

Build a simple, working compass and learn how a magnetized needle always points to North.



MATERIALS

- [x] A needle or straight pin (about 1 inch long)
- [x] A small magnet (or refrigerater magnet)
- [x] A clear plastic bowl of water
- [x] A small piece of cork or foam (about 1 inch square)
- [x] Scissors
- [x] A real compass (to test your DIY one)



INSTRUCTIONS

1 Cut a piece of foam into a square with each side about 1 inch.



2 Magnetize your needle by rubbing it on a magnet about 25 times. Always swipe the needle from top to bottom in the same direction.



3 Carefully pierce the magnetized needle through the foam so both ends stick out from opposite sides. Have an adult assist you to avoid injury.



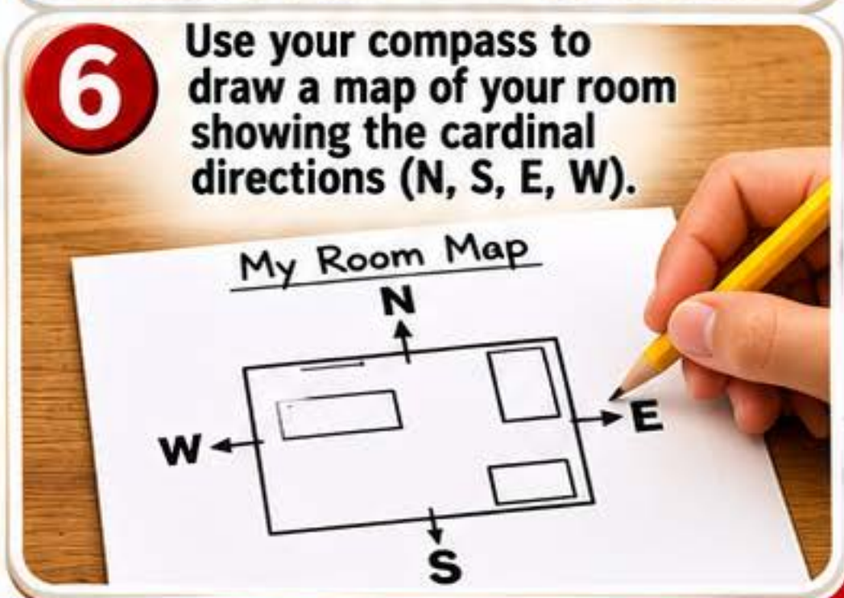
4 Place the foam in the center of a bowl of water, ensuring the needle is floating parallel to the water's surface. This creates your DIY compass.



5 Take a real compass and lay it flat next to your DIY compass. Watch as the needle on your DIY compass turns to point north, matching the real compass.



6 Use your compass to draw a map of your room showing the cardinal directions (N, S, E, W).

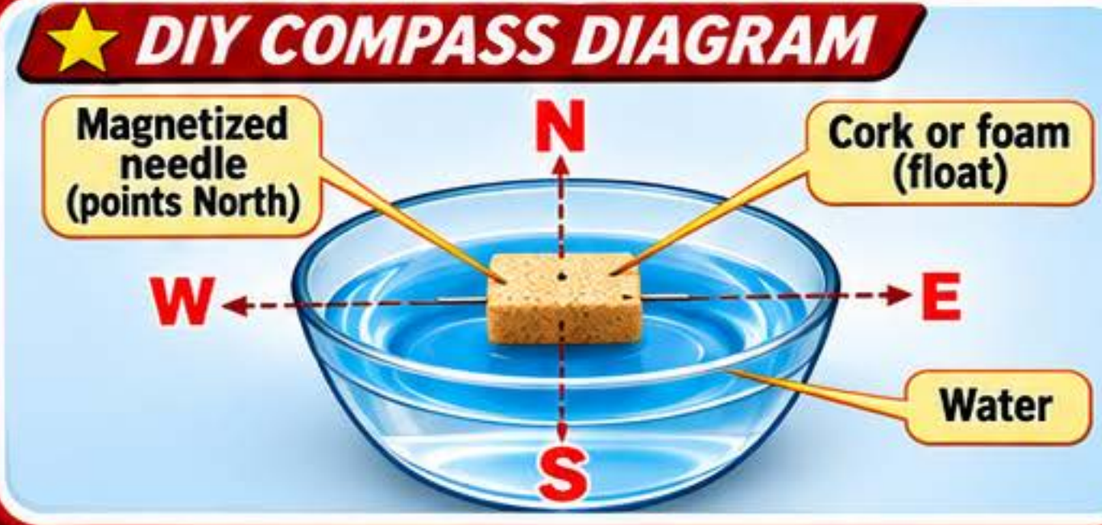


THE SCIENCE BEHIND IT

Rubbing the needle on a magnet makes it magnetic. A magnetized needle aligns with Earth's magnetic field and points toward the North Pole.



DIY COMPASS DIAGRAM



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DRAW A COMPASS ROSE

PURPOSE

Learn how to draw a compass rose and practice the four cardinal and four intermediate directions.





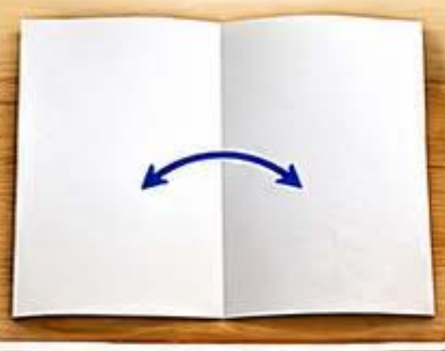
MATERIALS

- [x] Colored pens or pencils
- [x] Pencil
- [x] Eraser
- [x] An A4-size sheet of paper
- [x] Ruler

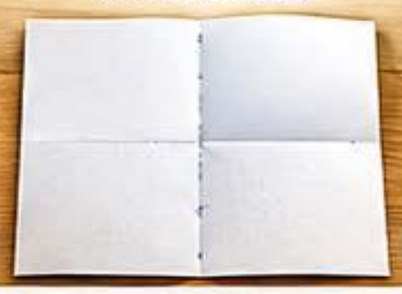


INSTRUCTIONS

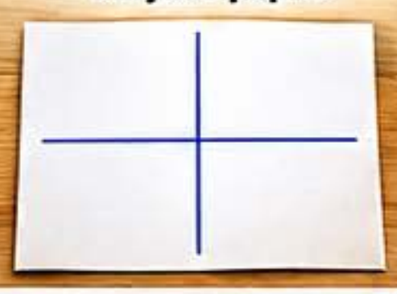
1 Fold a piece of paper in half from side to side, then open it up.



2 Fold it in half from top to bottom. Open it up again. You'll see a big cross made by the fold lines.



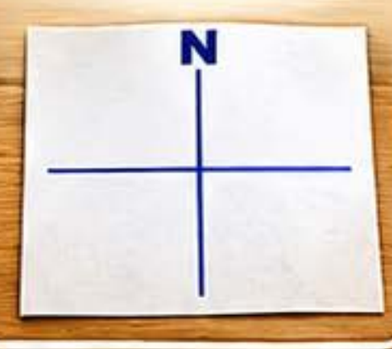
3 Use a pencil and a ruler to draw over the fold lines to make a clear cross on your paper.



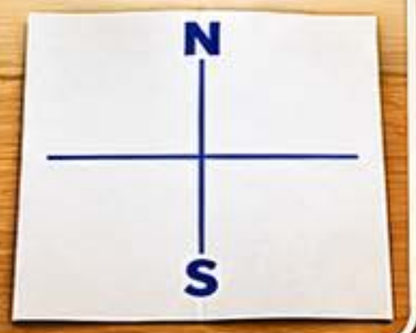
4 Find the center where the two lines cross. This is the middle of your compass rose.



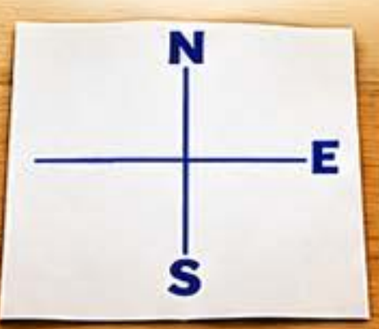
5 At the top end of the vertical line, write "North."



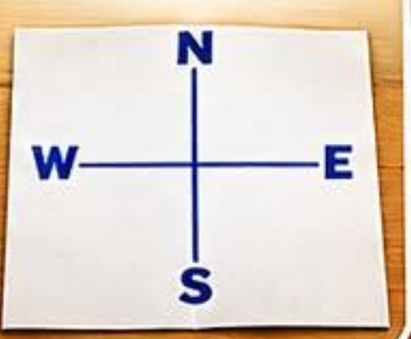
6 At the bottom end of the vertical line, write "South."



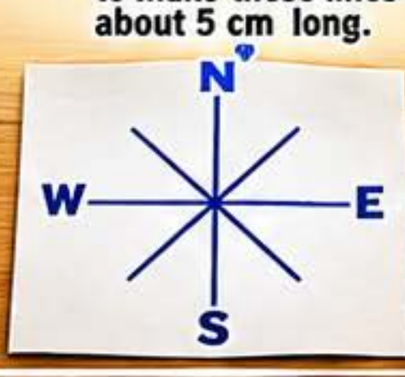
7 On the right end of the horizontal line, write "East."



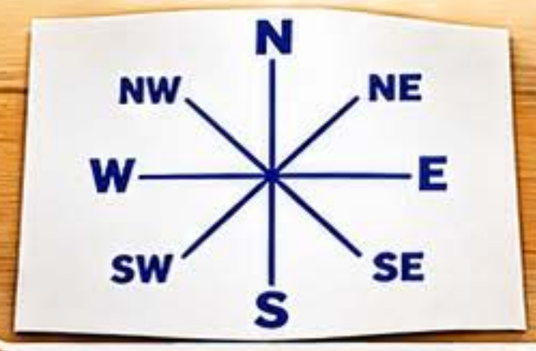
8 On the left end of the horizontal line, write "West."



9 Draw smaller straight lines from the center, halfway between each big line. Use a ruler to make these lines about 5 cm long.



10 Label each smaller line: NE (between North and East), SE (between South and East), NW (between North and West), SW (between South and West).



11 Connect the tip of the North line to the tip of the NE line. This makes a triangle shape.



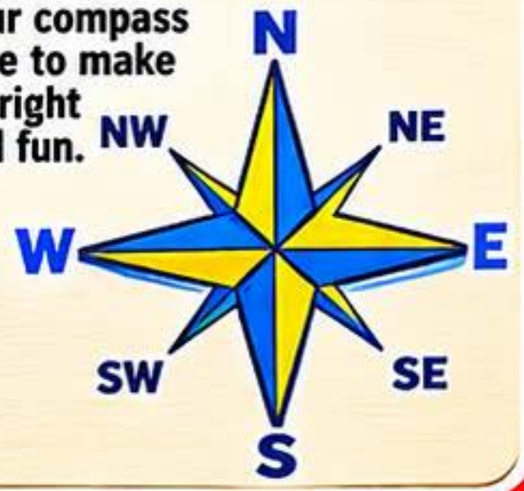
12 Do the same for the other main directions; each one should have two lines on either side running to the tips of intermediate directions. Connect East to SE and NE, South to SW and SE, West to NW and SW, and North to NW and NE.



13 Now you've made a compass rose!



14 Finally, color your compass rose to make it bright and fun.



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DRAWING YOUR OWN MAP

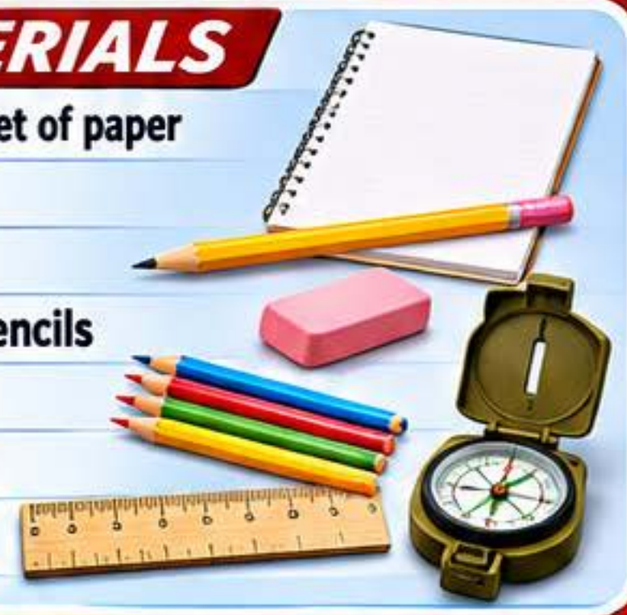
★ PURPOSE

Learn to measure a space, draw a map to scale, and use a compass rose to show direction.



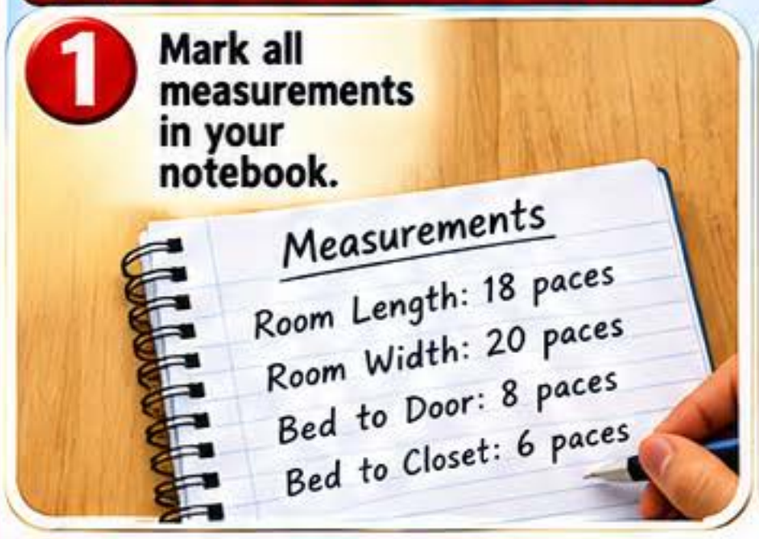
★ MATERIALS

- ☑ A large sheet of paper
- ☑ Pencil
- ☑ Eraser
- ☑ Colored pencils
- ☑ Ruler
- ☑ Notebook
- ☑ Compass



★ INSTRUCTIONS

1 Mark all measurements in your notebook.



2 Use your regular foot steps to measure and write down the length and width of your room in paces. Start from your door and walk around the room to get the measurement between all four walls. That's the border for your map.



3 Now, roughly sketch the layout of your room in your notebook, marking each item: the bed, closet, dresser, and so on.



4 Count how many paces it takes to walk from one item to the other. For example, what's the distance between your closet and bed? Write down those distances on your sketch.



5 Once you have measured the distances between the objects, decide on a scale.

For example: 1 inch = 1 pace.



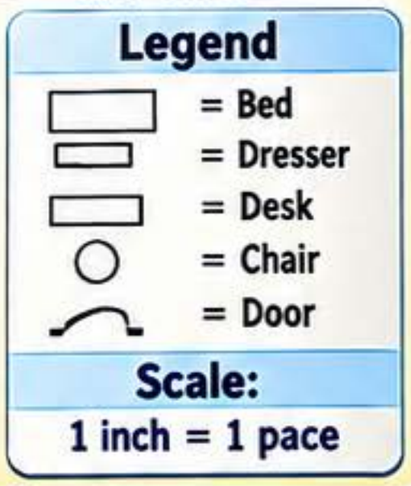
6 Now use your ruler to draw your map. Draw the border using the scale and measurements you got for the length and width of your room. For example, if the length was 18 paces and the width 20 paces, your room's border when drawn to a scale would be 18 inches by 20 inches.



7 Now, draw the objects in your room in miniature size using symbols: a square for the bed, a circle for a chair, and so on. Use your ruler to measure the distances between each object and the border of the map. For example, if your bed is 8 paces from the door, draw it 8 inches from the door.



8 Once done, add the map's legend and scale.



9 You can draw a colorful compass rose to make it look more professional; make sure to use your compass to find out in which direction your room faces North and align North on the compass rose you draw to match the true North in your room.



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BUILD A BACKYARD COMPASS

PURPOSE

Build a working compass in your yard using the sun's shadow and learn how to find the cardinal directions.



MATERIALS



- ☑ 8 sticks (one 12–14 in. long and all straight)
- ☑ Tape measure
- ☑ A square box (for a 90° angle)
- ☑ 5 small bricks
- ☑ 1 larger rock
- ☑ A hammer (to push sticks into the ground)
- ☑ Paint (to mark the ground)
- ☑ Notebook and pencil

INSTRUCTIONS

1 Start your project at about 10 a.m.



2 Find a good spot to build the compass; it shouldn't be obstructed by shadows from shrubs, trees, or buildings, especially on the eastern side.



3 Take your longest stick (12–14 in.) and push it into the ground. It should be thick enough to cast a shadow. Ask an adult to help.



4 Wait until 11:30 a.m. and when the tall stick casts a shadow, place a stick flat along the shadow. (If on daylight saving time, use 10:30 a.m.)



5 Repeat this step every 15 minutes by placing a stick on the shadow as it moves. Measure each shadow with a tape measure and write it in your notebook.



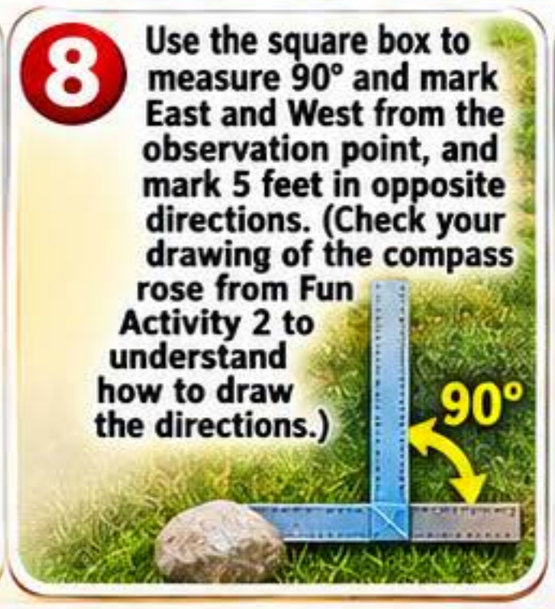
6 Mark these spots: The stick marking the shortest shadow is North, and the spot where the main stick stands is South.



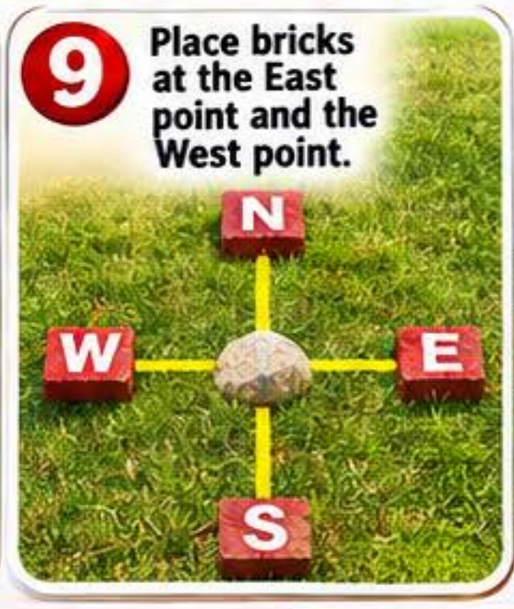
7 Now measure 5 feet out from the North spot and place a brick there. Then measure 5 feet out from the South spot and place a brick there. Then take out the main stick and place a large rock there. This is your observation point.



8 Use the square box to measure 90° and mark East and West from the observation point, and mark 5 feet in opposite directions. (Check your drawing of the compass rose from Fun Activity 2 to understand how to draw the directions.)



9 Place bricks at the East point and the West point.



10 Use paint to mark the four bricks: North, South, East, and West. And now you have a backyard compass!



RESULT: YOUR BACKYARD COMPASS





KEY TAKEAWAYS

- ☑ The sun's shadow helps you find North and South.
- ☑ A 90° angle gives you East and West.
- ☑ Your backyard compass shows the four cardinal directions: North, South, East, and West.

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COMPASS DIRECTION SCAVENGER HUNT

PURPOSE

Use a compass to follow directions, measure distance in paces, and work together to find hidden treasures!



MATERIALS (AS NEEDED)

- [x] Compass (or DIY compass)
- [x] Notepad and pencil
- [x] Treasure items (e.g., coins, key rings, or small prizes)
- [x] Markers or flags (optional)
- [x] An outdoor area (park, school grounds, or large open space)



HOW TO SET UP THE GAME

1 Choose a location:
This can be anywhere the park, your school playground, or even a room in your hodse.



2 Create your course:
Choose where to hide the treasure. Use a compass to find the direction and count paces to measure how far. Measuring in paces means using your steps like a ruler.



3 Create clues:
Write a list of clues leading to each treasure.

Example:
"I'm hiding 15 paces to the NW of the big sycamore tree, in a red tin."



GAME PLAY

1 Start:
Decide on a starting point and the first clue that participants must follow.



2 Navigation:
Players use a compass to follow the clues to each location.



3 Finale:
The player who finds the most treasure is the winner. If everyone doesn't have a compass, consider making a DIY compass, ensuring it's accurate.



EXAMPLE CLUE

Example:
"I'm hiding 15 paces to the NW of the big sycamore tree, in a red tin."



KEY TAKEAWAYS



- [x] Use a compass to identify directions (N, S, E, W, NE, NW, SE, SW).
- [x] Measure distance by counting paces.
- [x] Follow clues carefully and work as a team.
- [x] Have fun, stay safe, and enjoy using your compass!

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COMPASS DANCE GAME

PURPOSE

Have fun learning and using the cardinal and intermediate directions with a movement game!



MATERIALS

- ☑ Open area (playground, field, or backyard)
- ☑ Compass flags or cones (8 for full compass rose)
- ☑ Compass rose layout (N, S, E, W, NE, SE, SW, NW)
- ☑ A short poem or song (e.g., "Here We Go Round the Compass Rose")

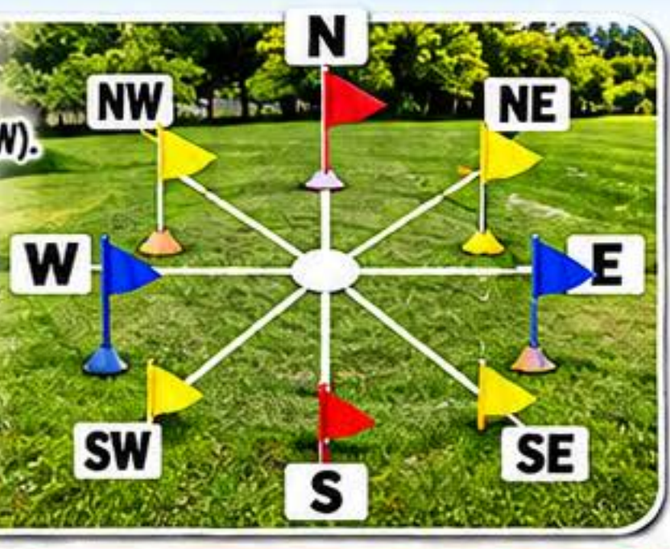


HOW TO SET UP TTHE GAME

1 **Choose a location:** Use a large, open area like a playground, field, or backyard.



2 **Create your course:** Use a compass to find the cardinal directions (N, S, E, W). Mark them with flags in a large cross and make sure they are well apart. For added fun, also mark the intermediate directions (NE, SE, SW, NW) to make a full compass rose.



3 **Choose a poem:** Use a familiar tune, such as "Here We Go Round the Mulberry Bush," and create a short poem.

Example:

Here we go round
the compass rose,
The compass rose,
the compass rose,
Exploring the corners
from North, and South,
to East, and West,
Around and around
we go!

GAME PLAY

1 **Start:** Choose a leader (this could be a Young Marine or an adult). The rest of the players stand in the center of the compass rose.



2 **Navigation:** Players in the center start to dance and sing the poem while moving in a circle.



3 **Listen to the leader:** The leader stands outside the compass rose and calls out a direction, such as "Run West!" or "Go Southeast!" Players quickly run to the flag for that direction.



4 **Finish:** Keep playing until only one player is left standing. That player becomes the new leader to start the next round.



COMPASS ROSE (8 DIRECTIONS)



KEY TAKEAWAYS



- ☑ Use a compass to find and mark directions.
- ☑ Work together, listen, and move quickly.
- ☑ Learn or review the cardinal directions: North, South, East, and West.
- ☑ Challenge yourself by adding the intermediate directions: NE, SE, SW, and NW.
- ☑ Have fun, stay active, and build your compass skills!

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COMPASS RELAY GAME

PURPOSE

Combine physical activity with compass skills as teams race to correctly identify compass points!



MATERIALS

- ☑ Two large cardboard compasses (with cardinal and ordinal directions)
- ☑ Real compass (to set North)
- ☑ Small markers (cones, bean bags, or stones) for each team
- ☑ Open space (field, playground, or large area)

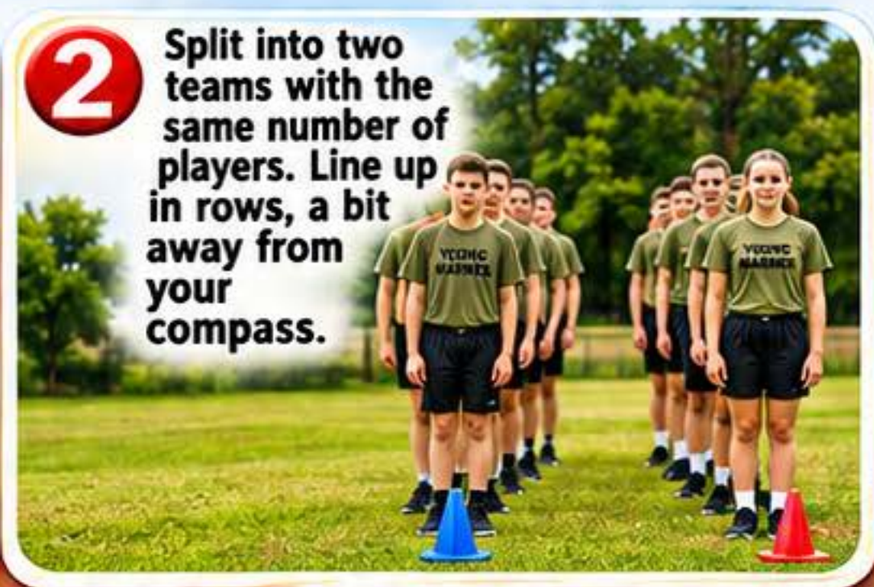


HOW TO PLAY

1 Place two large compasses on the ground at a set distance from where the teams will line up.



2 Split into two teams with the same number of players. Line up in rows, a bit away from your compass.



3 Listen carefully! The game leader shouts out a direction, such as "Northeast" or "Southwest." The first player in each team dashes to their compass and puts a marker on the shouted direction.



4 If you get it right, stand behind the compass facing your team to show you're done. If it's not quite right, no worries! Run back to your line, and you'll get another chance when it's your turn again.



5 Keep going! The next player in line waits for a new direction and then it's their turn to run. The game ends when every player on one team has correctly placed their marker and is standing behind their compass. That team wins!



COMPASS ROSE (8 DIRECTIONS)



KEY TAKEAWAYS

- ☑ Practice identifying all eight compass directions (N, NE, E, SE, S, SW, W, NW).
- ☑ Work together and use quick thinking.
- ☑ Build navigation skills while staying active.
- ☑ Have fun and encourage good sportsmanship!



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CAN YOU FIND IT?

PURPOSE

Use a compass to find and describe objects by direction while practicing observation and communication skills!



MATERIALS

- A compass for each player
- A piece of paper to keep score



HOW TO PLAY

1 Look around you and find an interesting object, such as a bird in a tree, a stuffed animal, or a book on a desk.



2 Check your compass to see which direction the object is in. Is it South? North-East? Or another direction?



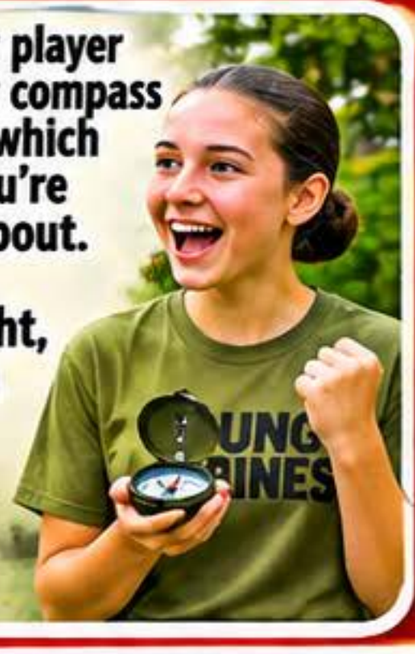
3 Ask a fun question based on what you see. For example:

"Can you find something that flies in the South direction?"

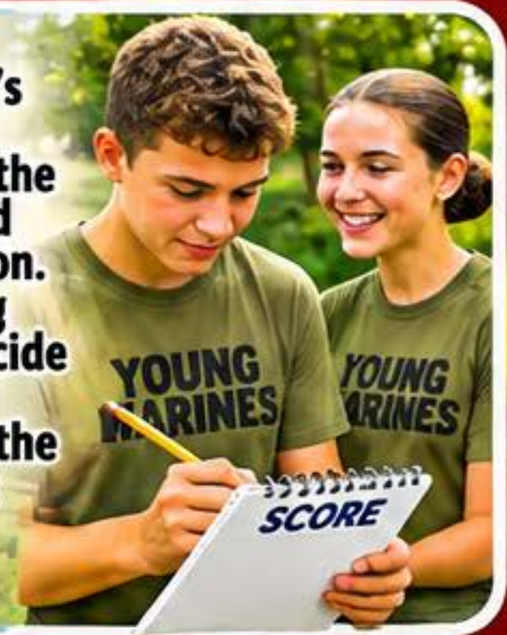
"Can you see something fun to read in the North-East direction?"



4 The other player uses their compass to guess which object you're talking about. If they guess right, they earn a point!



5 Now it's the other player's turn to look around, use the compass, and ask a question. Keep playing until you decide to stop. The player with the most points wins!



COMPASS ROSE (8 DIRECTIONS)



KEY TAKEAWAYS

- Use a compass to identify directions.
- Practice observation and communication.
- Take turns, ask good questions, and listen carefully.
- Keep score and see who can find the most objects.
- Have fun, be active, and build your navigation skills!

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COMPASS BINGO

PURPOSE

A fun and creative twist on bingo that helps you learn compass directions, practice navigation skills, and use your creativity!



MATERIALS

- A bingo card for each player (16 or 25 squares)
- Pens or pencils for drawing
- A master card for the leader with pre-drawn items
- A list of compass directions (cardinal and optional ordinal directions)

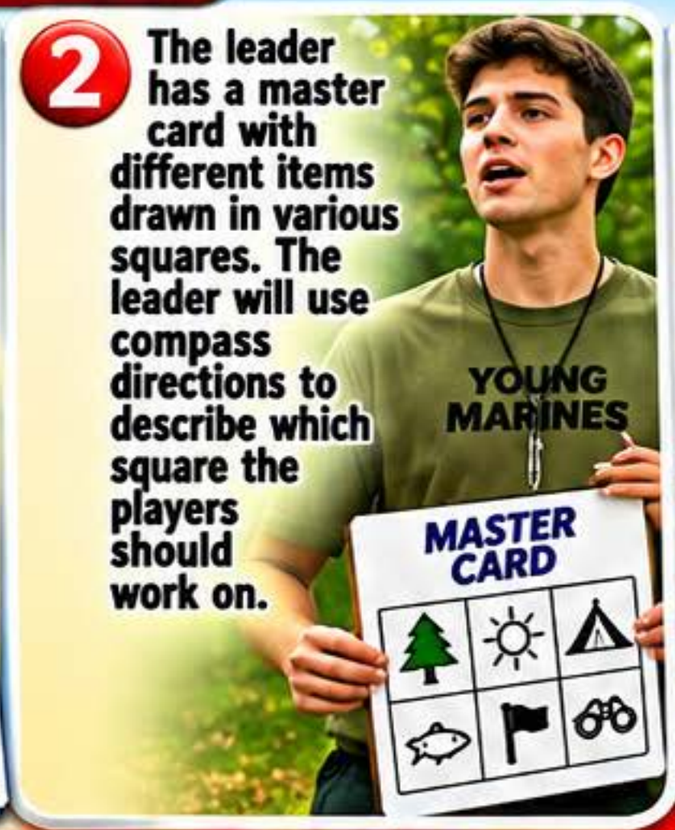


HOW TO PLAY

1. Each player receives a bingo card with empty squares. At the top (or bottom), mark the 4 (or 8) cardinal points to make it easier for beginners.



2. The leader has a master card with different items drawn in various squares. The leader will use compass directions to describe which square the players should work on.



3. The leader picks a square and describes its location using compass points. Example:

> *"Find the northmost square, then move as far west as you can. Draw an 'A' there."*

4. Continue giving directions for each item. The leader marks off each called item on the master card to avoid repetition. For younger players, provide occasional hints, like "the next square is right next to the tree you just drew."

5. The game continues until all squares on each player's card are filled. Players can then share and compare their drawings with each other.



EXAMPLE BINGO CARD (4 x 4)



COMPASS ROSE (8 DIRECTIONS)



KEY TAKEAWAYS

- Learn and use compass directions (N, S, E, W, NE, SE, SW, NW).
- Follow step-by-step navigation clues.
- Be creative by drawing different items.
- Build observation, listening, and map-reading skills.
- Have fun while practicing real navigation concepts!

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CLOSED COURSE CHALLENGE

PURPOSE

Practice compass skills by creating and following directions to complete a closed course that starts and finishes at the same spot!



MATERIALS

- [x] A compass
- [x] A marker (beanbag or small flag)
- [x] A notebook and pencil to write directions



HOW TO PLAY

1 Choose Your Playground:
Use a big open area like a schoolyard or park.



2 Mark Your Territory:
Each team places a marker at their starting point.



3 Create Your Course:
Write a set of directions with the number of steps and the direction (cardinal or bearing) to make a loop back to the starting point.



4 Exchange Directions:
Once each team has created their course, exchange the lists of directions with another team or participant.

5 Follow the Compass:
Use your compass to follow the set of directions provided by another team. Navigate accurately and return to your starting marker!



EXAMPLE 1: SIMPLE LOOP (Using Cardinal Directions)

Directions:

- [x] Walk 5 spaces North.
- [x] Walk 5 spaces East.
- [x] Walk 3 spaces South.
- [x] Walk 10 spaces West.
- [x] Walk 2 spaces South.
- [x] Walk 5 spaces East.



EXAMPLE 2: MORE COMPLEX LOOP (Using Specific Bearings)

Directions:

- [x] Take a bearing of 270° and walk 20 paces.
- [x] Take a bearing of 45° and walk 25 paces.
- [x] Take a bearing of 135° and walk 30 paces.
- [x] Take a bearing of 225° and walk 26 paces.
- [x] Take a bearing of 0° and walk 22 paces.



COMPASS ROSE (8 DIRECTIONS)



KEY TAKEAWAYS

- [x] Practice using both cardinal directions (N, S, E, W) and bearings (0°–360°).
- [x] Create and follow a course that returns to the starting point (a closed loop).
- [x] Build navigation, problem-solving, and teamwork skills.
- [x] Be accurate, pay attention to your steps and directions, and check your compass often.
- [x] Have fun, stay active, and challenge yourself!



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COMPASS TOSS

PURPOSE

Use a compass and teamwork to throw a beanbag in different directions, find it, and keep the game going!



MATERIALS

- ☑ A compass for each team
- ☑ A beanbag for each team



HOW TO PLAY

1 Gather your friends and form teams. Each team should have at least four players.



2 Each player in the team gets their own direction: North, South, East, or West. If you have more players, you can use additional directions like Northwest (NW) or East-Southeast (ESE).



3 The first player sets their compass to their assigned direction and faces that way. Holding the beanbag, this player throws it as far as they can in the direction they are facing.



4 Once the beanbag lands, the rest of the team races to find where it fell. The second player then goes to where the beanbag landed, sets their compass for their direction, and throws the beanbag again.



5 The game continues with each team member taking turns. Each time, set the compass, face the right direction, and toss the beanbag.



6 You can set a time limit or a number of rounds after which the game ends. The fun is in playing and enjoying, not just winning!



COMPASS ROSE (8 DIRECTIONS)



KEY TAKEAWAYS

- ☑ Practice using a compass to set and follow directions.
- ☑ Build teamwork and communication.
- ☑ Improve navigation and direction skills.
- ☑ Be active, have fun, and challenge yourself outdoors!



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GEOMETRIC SHAPES

PURPOSE

Use a compass to follow directions and create geometric shapes like a square, rectangle, triangle, or star!



MATERIALS

- A compass for each player or pair
- Wrapped candies to use as markers and prizes
- A spacious outdoor area like a park or large backyard

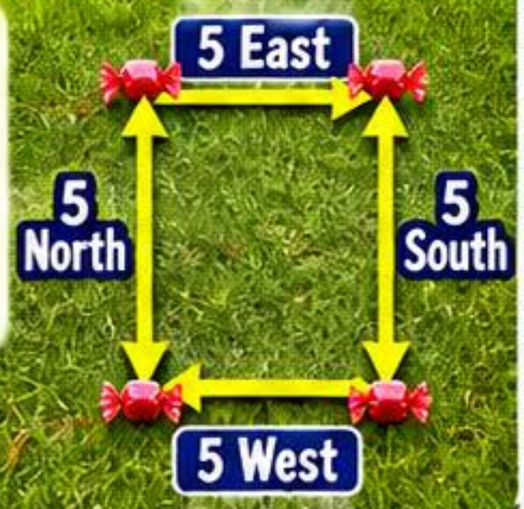


HOW TO PLAY

1. Place wrapped candies on the ground, spacing them several meters apart. Each candy marks the starting point for a shape.
2. Use your compass to find north. Walk the number of paces in the direction given by the game leader (e.g., "5 paces North").
3. Continue with each direction (e.g., "5 paces East," then "5 paces South," and "5 paces West"). If you followed the directions correctly, you should end up back at your starting point (next to your candy) and can collect it!
4. After everyone has made a square, try other shapes! Change the number of paces or directions to make triangles, rectangles, or even a star pattern for a challenge.

DIRECTIONS FOR THE SQUARE

- 5 paces North
- 5 paces East
- 5 paces South
- 5 paces West



COMPASS ROSE (8 DIRECTIONS)



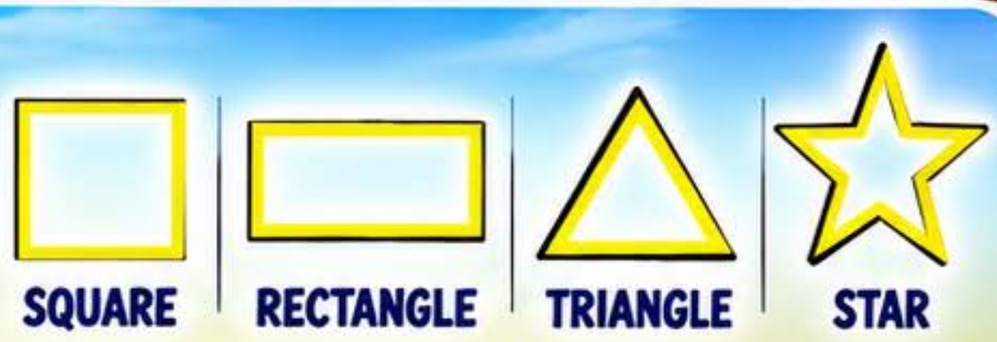
DIRECTIONS FOR THE RECTANGLE

- 4 paces North
- 4 paces South
- 8 paces East
- 8 paces West



KEY TAKEAWAYS

- Use a compass to follow directions accurately.
- Create geometric shapes (squares, rectangles, triangles, stars).
- Build navigation, problem-solving, and teamwork skills.
- Increase the number of paces or try more complex shapes as you improve.



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ANIMAL ADVENTURE

PURPOSE

Use a compass and animal friends to learn compass directions, practice navigation skills, and have fun working together!



MATERIALS

- ☑ A picture of an animal (for each player) or a favorite stuffed animal



- ☑ A large cardboard cutout with the letter "N" for North



HOW TO PLAY

1. Use a compass to find north in your play area. Tape the cardboard "N" to the wall or on the ground to mark North clearly for everyone.



2. The leader will call out directions for where each animal should be placed. For example, "Will the Tiger please sit at northeast?" Each player places their animal at the directed compass point relative to North.



3. Once all animals are in place, the game becomes more interactive. Players can suggest new movements for their animals. For example: *"Tiger, where are you and where would you like to go?"* A player might answer, *"I'm down south and I would like to go northwest."*

4. Since only North is marked, players must figure out where the other compass points are located based on their understanding of direction. Move the animals according to the new directions called out.



5. The game can continue with players moving their animals around different compass points until everyone has had a turn or you can set a time limit.



EXAMPLE SETUP



COMPASS ROSE (8 DIRECTIONS)



KEY TAKEAWAYS

- ☑ Identify and use compass directions (N, S, E, W, NE, NW, SE, SW).
- ☑ Practice navigation and spatial awareness.
- ☑ Build observation, decision-making, and communication skills.
- ☑ Work together and be creative.
- ☑ Have fun while learning compass concepts!

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HIDDEN SHAPES

PURPOSE

Use a compass to follow directions, navigate through an outdoor area, and find hidden shapes attached to trees and bushes!



MATERIALS



- ☑ Construction paper cut into shapes (flowers or animals)
- ☑ Pushpins to attach shapes to trees or bushes
- ☑ A large outdoor space with accessible trees or bushes
- ☑ A set of written directions for each team

HOW TO PLAY

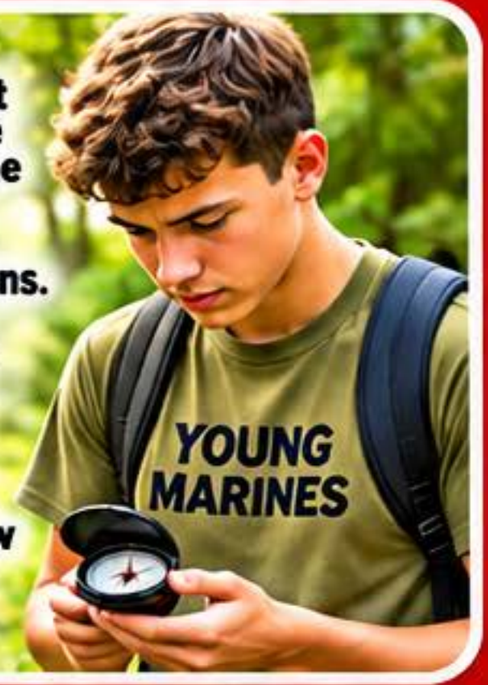
1 An adult will prepare the game area by attaching paper shapes (flowers or animals) to various trees or bushes with pushpins.



2 Organize into small teams, each group will act as a team of explorers. Distribute a unique set of written directions to each team.



3 All teams start from the same point. When the game begins, follow your team's directions. Example: "Go 12 paces East, then 34 paces North." Count each step and follow the compass directions carefully!

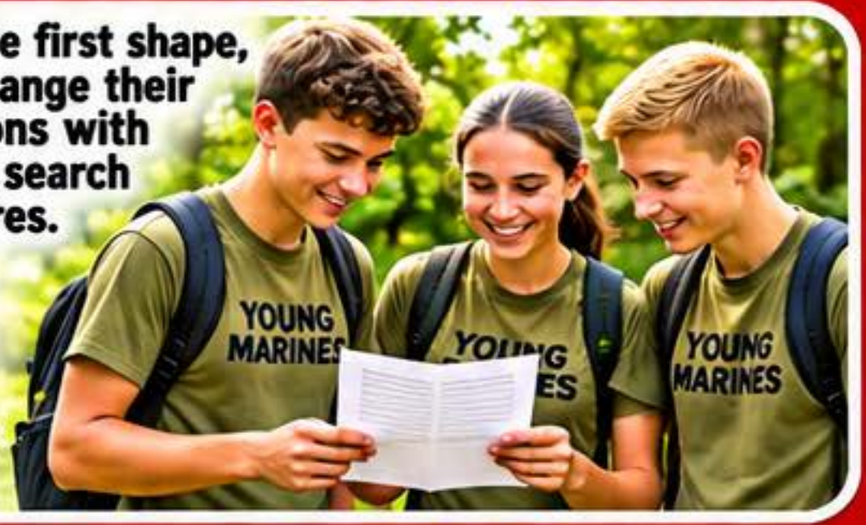


4 Use your directions to lead you to a specific tree or bush where your hidden shape awaits. Once you find your shape, celebrate your successful navigation!



5 After finding the first shape, teams can exchange their sets of directions with each other and search for new treasures.

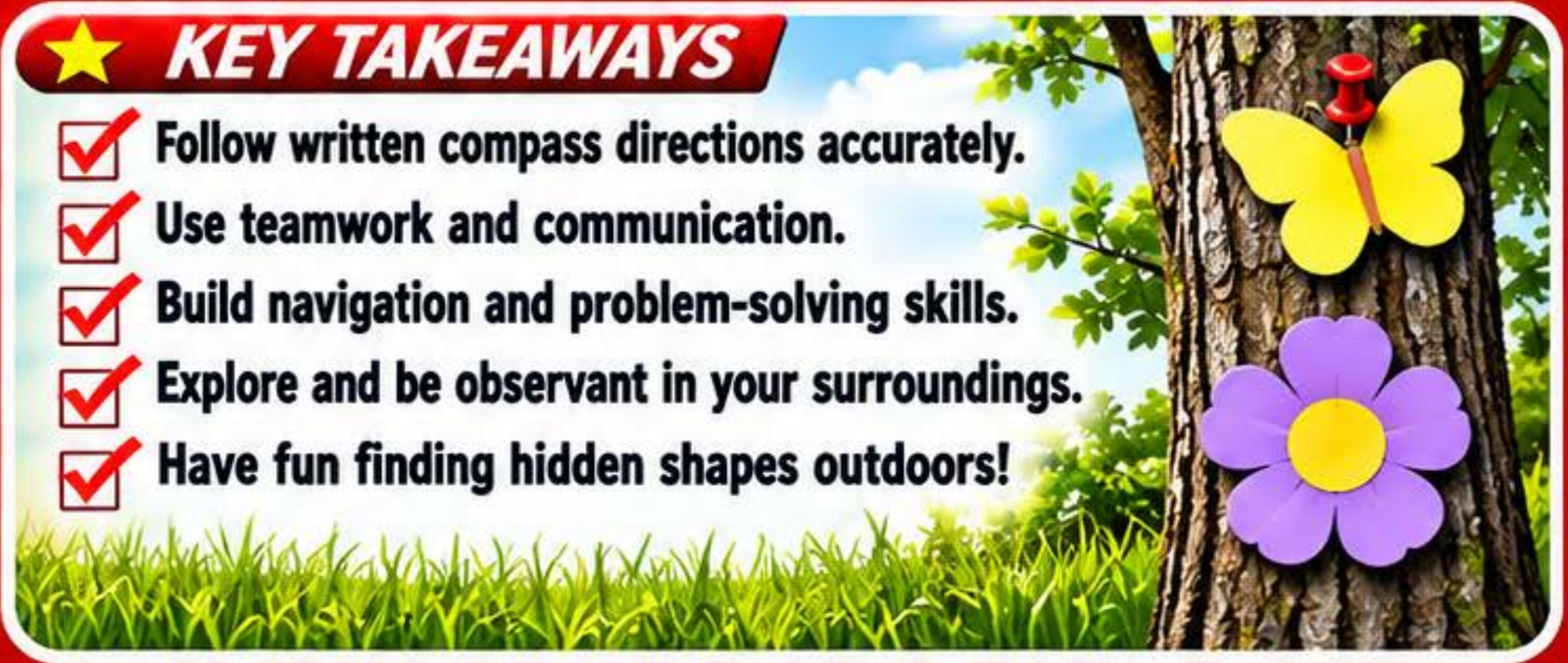
Continue the adventure by following new trails!



COMPASS ROSE (8 DIRECTIONS)



KEY TAKEAWAYS



- ☑ Follow written compass directions accurately.
- ☑ Use teamwork and communication.
- ☑ Build navigation and problem-solving skills.
- ☑ Explore and be observant in your surroundings.
- ☑ Have fun finding hidden shapes outdoors!

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COMPASS TRAIL GAME

PURPOSE

Create, navigate, and follow compass trails with your team, build navigation skills, and enjoy an outdoor adventure!



MATERIALS

- [x] A compass
- [x] Pen and paper (to write your path)
- [x] Two Popsicle sticks per team (trail markers)
- [x] Flashlights (for a night game)



GETTING READY

1 Form Your Teams:

Gather into small groups (called patrols). Each group should have about 3–5 friends.



2 Grab Your Gear:

Each patrol gets a compass, piece of paper, a pen, and two Popsicle sticks.



3 Place Your Starting Marker:

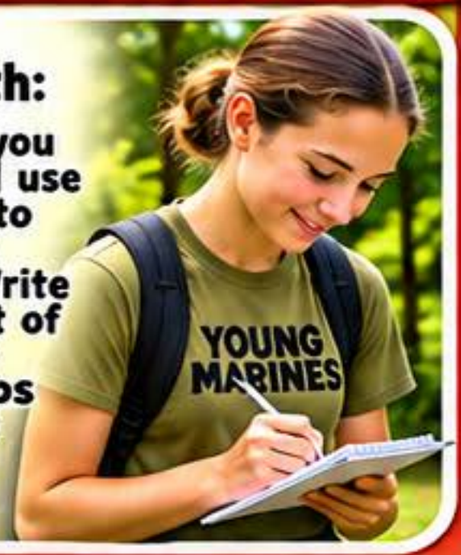
Put one of your Popsicle sticks in the ground where you'll start your trail. This is your trail's "home base."



LET'S MAKE A TRAIL!

1 Create Your Path:

Decide where you want to go and use your compass to find out which way to walk. Write down each part of your path, like "walk 25 steps North" or "go 10 steps Northwest."



2 End Your Trail:

When you get to the end of your trail, put down your second Popsicle stick. This tells everyone, "The trail stops here!"



3 Trade Trails:

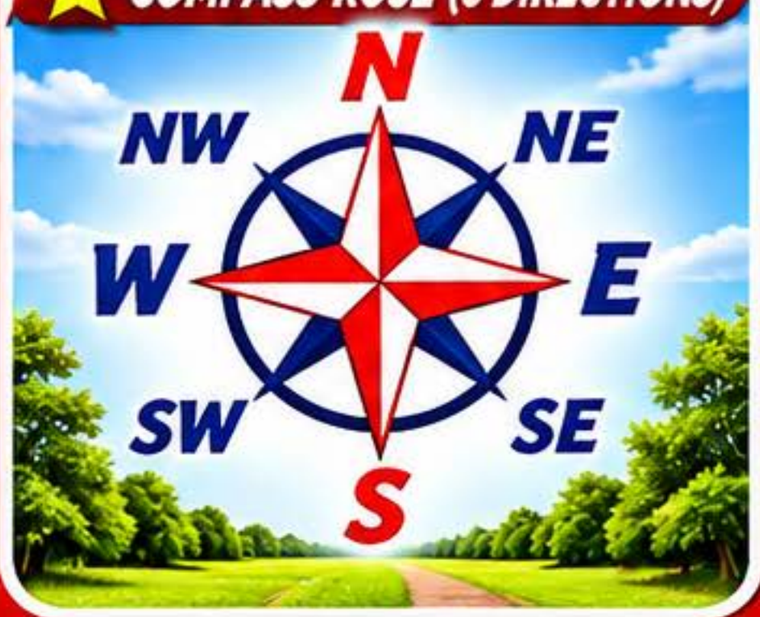
Swap your trail directions with another patrol. Start at the Popsicle stick of another team's trail and use their directions to find the end.



EXAMPLE TRAIL DIRECTIONS



COMPASS ROSE (8 DIRECTIONS)



KEY TAKEAWAYS

- [x] Use a compass to plan and follow a trail.
- [x] Work as a team and communicate.
- [x] Build navigation and problem-solving skills.
- [x] Be creative when making your trail.
- [x] Try a night game with flashlights for extra adventure!

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COMPASS GOLF

PURPOSE

Test your aiming skills and compass knowledge by hitting a golf ball into a center can from the North, South, East, and West directions.



MATERIALS

- A small tin can (target)
- A large circle marked on the ground
- Small pegs to mark the North, South, East, and West points
- A golf ball and club for each player



SETTING UP

1. Bury a small tin can in the center of a large circle marked on the ground. This will be the target for your golf shots.



2. Place small pegs at the North, South, East, and West points along the circumference of the circle. These are your starting points, or "tees."



COMPASS ROSE (8 DIRECTIONS)



HOW TO PLAY

1. Take turns at each directional peg (North, South, East, and West). The goal is to hit the golf ball into the tin can from these points.



2. Record how many strokes each player needs to get the ball into the can from each directional tee. Fewer strokes are better!



3. After taking a shot from one direction, move to the next peg in sequence (for example, from North to East) and take your next shot.



4. Once all players have taken shots from all four points, tally up the number of strokes it took each player from each direction.



Strokes

Player	N	E	S	W	Total
A	3	2	4	3	12
B	2	3	3	2	10
C	4	3	4	3	14

5. The player who uses the fewest total strokes to get the ball into the can from all four directions is the winner!





KEY TAKEAWAYS

- Use a compass to identify and follow directions (N, S, E, W).
- Practice aiming, focus, and control.
- Build counting and problem-solving skills.
- Take turns, be fair, and encourage others.
- Have fun while learning compass skills!



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COMPASS BALL

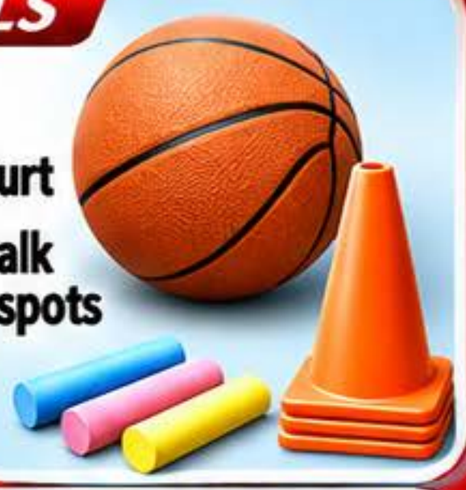
PURPOSE

Use your compass skills to test your knowledge of directions, work as a team, and have fun scoring points with basketball!



MATERIALS

- ☑ A basketball
- ☑ A basketball court
- ☑ Cones or sidewalk chalk (to mark spots on the court)



SETTING UP

1. On the basketball court, use cones or chalk to mark 8 spots. These spots are secret because they stand for directions (N, S, E, W and the ones in between like NE, NW, SE, SW).



2. Split into two teams. Each team will take turns to play.



HOW TO PLAY

1. Listen for the Direction: At the start of your turn, an adult, referee, or team captain will call out a direction, like "North" or "Southeast."



2. Quickly think and run to the spot on the court that matches the direction called out.



3. If you're at the correct spot, you get 2 points and can shoot the basketball to try and score a basket. If you make the basket, you earn an extra point!



4. Everyone gets a chance to run, think, and shoot! We'll keep going until everyone has had the same number of turns.



5. At the end, we add up all the points. The team with the most points wins the game!



COMPASS ROSE (8 DIRECTIONS)



KEY TAKEAWAYS

- ☑ Use compass directions and recall the 8 main points (N, S, E, W, NE, NW, SE, SW).
- ☑ Be quick, think carefully, and move with purpose.
- ☑ Practice teamwork, focus, and sportsmanship.
- ☑ Build navigation and decision-making skills.
- ☑ Have fun while learning compass concepts!



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PASSWORD HUNT

PURPOSE

Navigate with a compass, follow directions, and work as a team to find hidden pieces of a password. It's a race against time to see which team can piece together their password first!



MATERIALS

- ☑ **Compass** (one per team)
- ☑ **Password pieces** (each team's password cut into three parts)
- ☑ **Starting point** (all teams start at the same place)

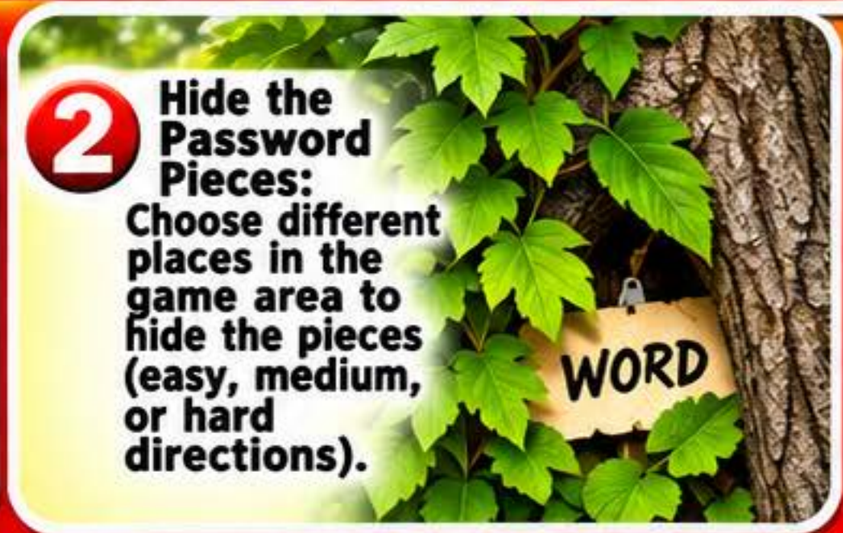


SETTING UP

1 Prepare the Passwords:
Write a secret password for each team, then cut it into three pieces.



2 Hide the Password Pieces:
Choose different places in the game area to hide the pieces (easy, medium, or hard directions).



3 Mark the Starting Point:
All teams start from the same location (such as a big tree, a bench, or clear landmark).



HOW TO PLAY

1 Start the Hunt:
Each team lines up at the starting point. When the leader says "Go!" each team uses their compass to find the first piece of their password.



2 Follow the Directions:
Follow the compass directions given to find each piece of your password. There might be challenges or extra clues along the way!



3 Collect All Pieces:
Once you find a piece, figure out the next direction to find the next one. Keep track of each piece as you collect them.



4 Race to the Finish:
After finding all the pieces, hurry back to the starting point. The first team to arrive with their complete password—or the correct answer—wins the game!



COMPASS ROSE (8 DIRECTIONS)



KEY TAKEAWAYS

- ☑ Use a compass to navigate and follow directions.
- ☑ Work together and communicate as a team.
- ☑ Solve problems and complete challenges.
- ☑ Build focus, decision-making, and navigation skills.
- ☑ Have fun with a friendly, active competition!



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PENNY PATHFINDER

PURPOSE

Use a compass and basic geometry to navigate a triangle and return to your starting point. Sharpen your compass skills and see how angles work in real life!



MATERIALS

- [x] A penny
- [x] A compass
- [x] An open space suitable for walking



HOW TO PLAY

1 Start by placing a penny on the ground right at your feet.



2 Set your compass to any bearing (for example, 60°). Take a sighting along that bearing, then walk exactly 10 paces in that direction.



3 Add 120° to your initial bearing (for example, 60° + 120° = 180°). Take a sighting on this new bearing and walk another 10 paces.



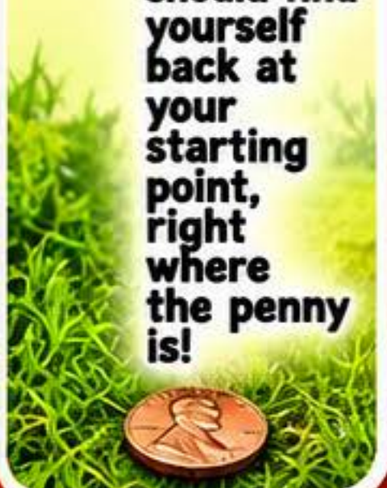
4 Add another 120° to your current bearing (180° + 120° = 300°). Take a sighting and walk 10 paces.



5 Add one more set of 120° to your bearing (300° + 120° = 60°). Take a sighting and walk your final 10 paces.



6 Stop and look down at your feet. If all went well, you should find yourself back at your starting point, right where the penny is!



GAME DIAGRAM (TRIANGLE)



KEY TAKEAWAYS

- [x] Practice using a compass and bearings.
- [x] Use angles (120° turns) to form a triangle.
- [x] Build confidence, focus, and accuracy.
- [x] Learn how navigation and geometry work together.
- [x] Try again and adjust your bearings if needed.



PLAYER TIP:

A triangle (three 120° turns) will bring you back to your starting point!

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THE BOX GAME

PURPOSE

Use a compass to follow directions, build navigation skills, and find hidden treasure!



MATERIALS

- A compass to guide you
- A navigator box (which lets you see your compass)
- A friend to give you step-by-step directions



HOW TO PLAY

1 Put on your navigator box at the starting line. Check that you can see your compass clearly.



2 Your friend will read out directions, like "Turn East and walk 8 steps," then "Turn North and walk 10 steps." Use your compass to find the right direction and count your steps carefully.



EXAMPLE DIRECTIONS:

- Turn East and walk 8 steps.
- Turn North and walk 10 steps.

3 Follow the directions accurately, and you'll find yourself right at the treasure! What will it be? Maybe some candy or another cool surprise.



SAFETY & GAME TIPS

- Adults will be around to make sure everyone is safe.
- This is a game of skill and patience, not speed.
- Focus on following the directions and using your compass correctly.

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COMPASS TREASURE HUNT

PAGE 1 of 2
Overview & Setup



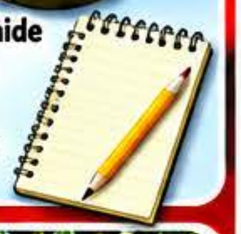
★ PURPOSE

Use a compass to follow directions, solve clues, work as a team, and find hidden treasure while building navigation, problem-solving, and teamwork skills!

★ MATERIALS



- ☑ A compass
- ☑ Treasure hunt clues (prepared in advance)
- ☑ Small treasures or prizes to hide
- ☑ A notebook to record clues and directions
- ☑ A friend or family member (to join the hunt)



★ TREASURE HUNT SETUP

1 Choose a Great Spot for Your Hunt

Pick a fun place like a backyard, park, or beach for your treasure map adventure.



2 Select and Hide the First Clue

Choose a starting point and hide the first clue in a clever spot (behind a tree, near a statue, or under a bench).



3 Prepare Your Compass and Take a Bearing

- ✓ Stand at the starting point.
- ✓ Hold your compass flat and point it at the hiding spot.
- ✓ Rotate the bezel until the red needle is insidele orienting arrow.
- ✓ Read the bearing at the index pointer and record it, along with the number of steps.



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COMPASS TREASURE HUNT

PAGE 2 of 2
How to Play

★ HOW TO PLAY – THE TREASURE HUNT

1 Start the Hunt

Position yourself at the starting point. Take the first clue and read the directions carefully. The clue will give you a bearing (degrees) and the number of steps to walk.



2 Put Red in the Shed

Hold the compass flat and level. Turn your whole body until the red end of the needle lines up with the orienting arrow.



3 Walk to the Clue

Bepin walking in the direction of travel (bearing) and count your steps carefully. Keep your eyes on a distant reference point to stay on course.



4 Discover the Next Clue

When you have walked the specified number of steps, look around for the hidden clue. Read the clue to get the next set of directions and repeat the process.



5 Find the Treasure

Follow the final clue to the treasure's hiding spot. Search carefully, find the treasure, and celebrate your success!



★ CLUE EXAMPLE

"Walk 30 steps at 45° to find your next hint."

★ KEY TAKEAWAYS

- ☑ Use a compass and follow bearings.
- ☑ Count steps accurately.
- ☑ Work together and solve problems.
- ☑ Build navigation, focus, and teamwork skills.