All Around the Compass

LESSON PLAN

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OBJECTIVE:

Participants will learn how read a compass and the importance of the cardinal directions (NESW).

INTRODUCTION:

Directions are important. It's how we know where we are in the world and where we are going.

Write the cardinal directions (NESW) on separate sheets of construction paper. Decorate the paper if you'd like.

If you're in a classroom, the activity is a lot like musical chairs. You may move desks and chairs around before the activity or include the students in the process to arrange the chairs into a rough circle.

INSTRUCTIONS:

Distribute compasses to groups of students and ask them to point out the directions. Where's north, south, etc.? What are the cardinal directions? (N, E, S, W = Never Eat Soggy Waffles)

Ask students if they know how compasses work? (Magnetic compasses) Once participants agree, tape the direction to each wall of the classroom.



CHALLENGE:

Determine what direction you face without a compass.

MATERIALS NEEDED PER GROUP OR **STUDENT:**



ADDITIONAL MATERIAL:

Device to play music



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INSTRUCTIONS CONTINUED:

Ask students if they know how compasses work? Arrange the chairs into a square, so they are each facing one direction.

Turn on music and play musical chairs. Once the music stops, ask individuals which way they are facing. Keep the game going until there is a winner.

Ask participants follow-up questions. Would they be able to tell where north is outside the classroom? How can a compass be helpful?

Discuss how surveyors use compasses to help map out the land and water around us.

TALKING POINT:

A compass is a instrument that indicates direction. Magnetic compasses use a magnetized needle that rotates so it lines up with Earth's magnetic field. The needle points to what are known as magnetic north and magnetic south. Rudimentary compasses can be made of a magnetized needle attached to a piece of wood or something that can float in a water. As the needle would settle, the marked end would point toward magnetic north. It's something you can test for yourself!

GO BEYOND:

Depending on the time you have, your location, and the age of the participants you can expand the activity. Navigate to Google Earth and type in the address of your location. Once the satellite image loads, click on the compass in the bottom right-hand corner to be sure that the image orientates to face north.

Ask the participates what other landmarks in your area faces north? East? And all the other directions. What if the landmark is in-between north and west? Explain the degrees around the compass.

ACKNOWLEDGMENTS:

Activity inspired by GPS Adventures "Up North, Down South" from Minotaur Mazes.



