

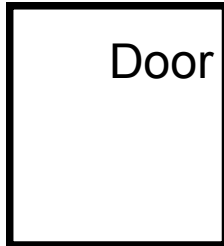
Homemade compass

Materials:

- 1 piece of steel
- 1 strong magnet
- 1 floating cork
- 1 container of water

Procedure:

1. Check to make sure that you have all the necessary supplies.
2. Magnetize the needle by rubbing it in the same direction along the magnet at least 20 times.
3. Place the needle through the floating cork so that it will float flat
4. Place the floating cork and needle in the center of the water.
5. Observe the floating needles movement.
How did the floating needle move when it was placed in the water?

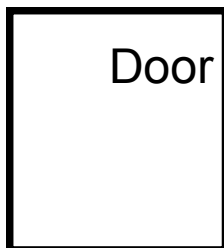


If the square to the left was a map of the room, draw which direction is north according to your compass.

Is this the same direction as your lab partners?

6. After the floating needle has stopped moving for 1 minute, turn the floating needle 90 degrees to the left and observe what happens.

What happened after you turned the floating needle? Explain why this happened. (2 complete sentences)



7. Use a compass supplied by your instructor draw which direction is north according to this compass.
Did the results of your homemade compass agree with the results of this compass?

8. What are some sources of error in this activity?

9. On the back of this sheet list every common use for a magnet that you can think of.