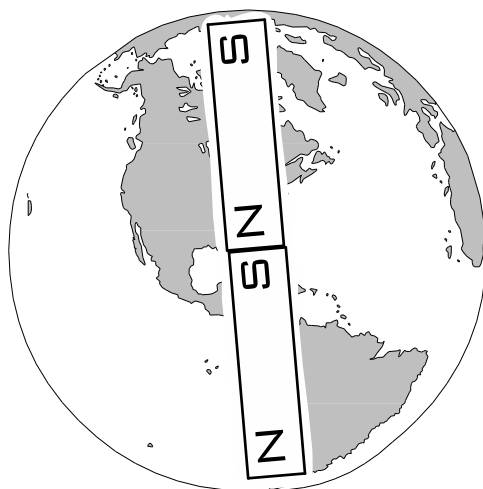


OUR MAGNETIC EARTH

Why does a compass point north? Could the Earth be a giant magnet? Today you will experiment with a model that shows how the Earth acts as a giant magnet, and how that makes a compass point north.

WHAT YOU NEED: 2 bar magnets and a compass

WHAT TO DO: We will model our magnetic earth using the bar magnets on a picture of the earth. Place the magnets on the picture as shown. Slowly move your compass all around this "earth". Watch how your compass needle points.



What did you observe?

Is there really a big bar magnet stuck in the Earth? No, but the Earth's molten core acts like a magnet with a north and south pole that are pretty close to the Earth's geographic poles.

Why did I tell you to put the **S** pole of the magnet on the North Pole of the Earth?
What would happen if we put the magnet on the other way?

- Place the compass next to this Earth picture.
- Place one bar magnet on the Earth (in the middle of the circle).
- Slowly rotate the magnet while watching the compass.
- Stop when the compass points to the word

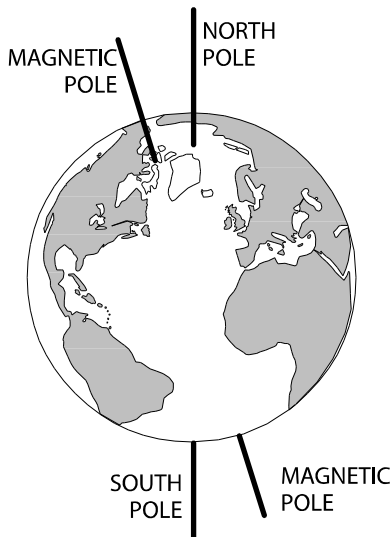
N O R T H

N on a bar magnet or a compass means "North-seeking" or "attracted to North".

To get the compass needle to point Northward, the Earth's North Pole must be what kind of pole,

[North-seeking] or [South-seeking] ?

circle your answer

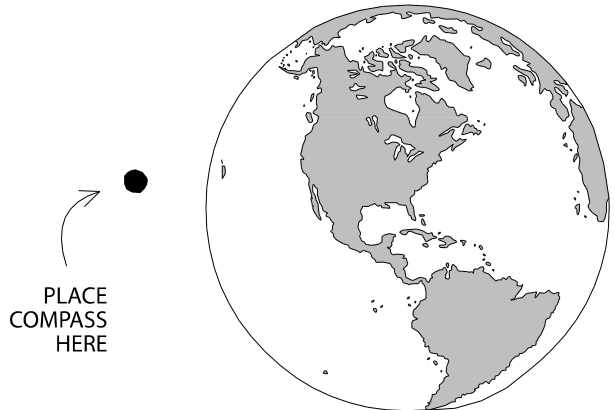


The magnetic north and south poles aren't perfectly lined up with true south and north, so a compass doesn't point exactly north, but it's very close.

AMAZING MAGNETIC FACT:

*IF YOU WERE STANDING ON THE NORTH POLE, YOUR COMPASS WOULD TRY TO POINT **DOWN, INTO THE EARTH!***

N O R T H



S O U T H