Earth's Shape and Magnetic Field

Earth's Shape

- Earth is an oblate spheroid. The minor axis, or the diameter of the poles, is smaller than the major axis, or the diameter of the equator. This means that the Earth is squished down a bit at the poles and bulges a bit at the equator. Half of Earth is called a hemisphere. There is a northern and southern hemisphere.

Study Tip

Think of the Earth's magnetic field as a giant magnet. There is a north and south end that attracts and repels forces.

Evidence of a Spherical Earth

- The Earth's shape is responsible for the apparent "sinking" of a boat into the horizon as it gets further and further away.

Earth's Magnetic Field

- Earth's **magnetic field** behaves as if a bar magnet is inside the planet, which is why the North and South poles are nearly aligned. The molten iron and nickel metals inside the Earth's core are responsible for this magnetic force.

Magnetic Reversals

- Throughout the history of the Earth the poles have been flipped
- Scientists believe that convection caused the magnetic field to become chaotic, thus getting reversed
- Others believe that asteroid impacts distributed motions within the core

The Earth's magnetic field is displayed by both its north and south poles.

Concept Check

- What shape is the Earth? What is a hemisphere?
- Describe Earth's magnetic field.