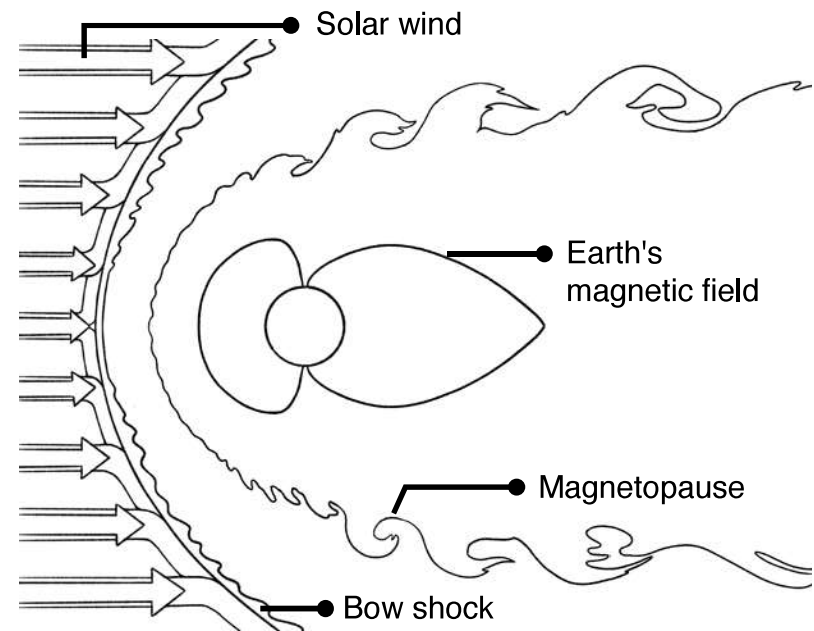


Solar Wind

The Sun does more than just give out light. It also sends out a stream of charged particles called the **solar wind**. The solar wind travels from the Sun all the way to Earth and throughout the rest of the solar system. Fortunately, our planet is protected by the magnetosphere, an invisible shield created by **Earth's magnetic field**. When the solar wind reaches Earth, it crashes into this shield and is forced to flow around it.

The point where the solar wind first meets Earth's magnetic field is called the **bow shock**, kind of like the wave that forms in front of a moving boat. Just beyond that is the **magnetopause**, the boundary where the pressure from the solar wind and Earth's magnetic field balance out. This protective system keeps most of the solar wind from reaching Earth's surface.

The solar wind also runs up against the interstellar medium, which permeates the space between stars. This creates a bow shock similar to the one created by Earth's magnetosphere, only much, much bigger. Everything inside this bubble or "shock" is called the heliosphere.



Speaking of the Heliosphere...

We cannot see the solar wind with our eyes, but people living in high latitudes can often see the effects of its presence. Charged particles in the solar wind cause beautiful auroras to occur in the night sky. Have you ever witnessed these phenomena that are caused by solar wind?



In Alaska's Alutiiq/Sugpiaq language, the word for particles is **pelut** (literally *dust* or *ashes*). To hear the word pelut and other Alutiiq/Sugpiaq words spoken, scan the QR code.

