

Name \_\_\_\_\_

## The Sun's Magnetic Magic: How it Influences Earth

### Short Answer Key

1. The solar wind carries charged particles that, when they enter Earth's atmosphere near the polar regions, collide with gases and release energy in the form of colorful light, creating the auroras.
2. Earth's magnetosphere acts as a protective shield, deflecting most of the solar wind's harmful particles away from our planet.
3. Fluctuations in the ionosphere can disrupt radio signals and GPS systems by delaying or distorting their signals.
4. Magnetic storms are rapid fluctuations in Earth's magnetic field caused by intense solar activity. They can impact technology by causing power outages, communication disruptions, and satellite damage.
5. Scientists predict and monitor solar activity using solar telescopes, space-based observatories, and monitoring equipment in space and on Earth.

