

Name _____

Magnets in Mining: Unearthing Earth's Treasures

Short Answer Key

1. Magnetic prospecting involves using magnetometers to measure variations in the Earth's magnetic field, helping geologists identify potential mineral deposits by detecting anomalous magnetic readings.
2. Magnetic drums and conveyor belts are used in the mining industry's magnetic separation process. As crushed ore passes over the drum, magnetic minerals are attracted and separated, while non-magnetic materials continue along the conveyor belt.
3. Electromagnets create strong magnetic fields to attract and separate impurities from valuable minerals during the purification process. This purification is important to produce higher-quality products and reduce waste.
4. Materials commonly separated using magnetic techniques in recycling facilities include ferrous and non-ferrous metals such as steel, aluminum, and copper.
5. Magnetic separation in recycling facilities contributes to sustainability by efficiently separating valuable materials from waste, reducing the need for new mineral extraction, and conserving resources.

