

Name _____

Magnetic Marvels: The Inner Workings of Magnets

Short Answer Key

1. Magnetic poles are distinct regions within a magnet where the magnetic force is concentrated. Opposite poles attract each other, while like poles repel each other.
2. An electromagnet is created by passing an electric current through a wire coil, generating a magnetic field. An example is a junkyard crane that uses an electromagnet to lift and move metal objects.
3. Examples of everyday items using magnets include magnetic closures on doors and cabinets (for easy opening and closing) and magnetic strips on credit cards (for data storage and security).
4. Atomic alignment refers to the arrangement of atomic magnetic moments within certain materials, where these moments align in the same direction, reinforcing the material's overall magnetic effect.
5. The principle "opposites attract, likes repel" is fundamental in magnetism and describes the behavior of magnets. It means that the north pole of one magnet will be attracted to the south pole of another magnet, while two north poles or two south poles will repel each other.

