

Name _____

Magnet Magic: Unveiling the Two Main Types of Magnets

Open-Ended Response Answer Key

1. Answers may vary but should include engaging demonstrations or examples, such as using magnetic toys or showing how magnets can pick up metal objects. Relating the concept to everyday experiences can make it more relatable.
2. The historical development of permanent magnets and electromagnets includes their discovery, applications in navigation (e.g., compasses), and contributions to technologies like electricity generation and medical imaging.
3. Cutting-edge technologies like magnetic levitation trains heavily rely on electromagnets, offering faster and more efficient transportation. Challenges may include infrastructure development and safety measures.
4. Ethical considerations in the use of powerful magnets involve safety protocols, especially in medical applications like MRI machines. Proper training and equipment maintenance are crucial to ensure responsible use.

