

Name \_\_\_\_\_

## Mysteries of Magnetism: The Power of Attraction

### 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 are used in everyday objects.
2. The historical significance of magnetism includes its use in early compasses for navigation and its role in scientific discoveries by scientists like William Gilbert and Hans Christian Oersted.
3. Potential future applications of magnetism include advancements in magnetic data storage, medical treatments using magnetic nanoparticles, and more efficient energy generation through magnetic materials.
4. Ethical considerations in magnetism technology include data privacy and security in data storage, the responsible use of magnetic materials in medical applications, and minimizing environmental impacts in magnetic technology production. Scientists and engineers must balance innovation with ethical responsibility.

