

Name _____

Attracting Knowledge: Magnetic Force vs. Gravitational and Electric Forces

Open-Ended Response Answer Key

1. Answers may vary but should include examples like MRI machines, magnetic levitation trains, and magnetic locks.
2. In the absence of gravitational force, objects inside the spaceship would experience weightlessness. Navigation might rely on other means, such as thrusters or accelerometers.
3. Magnetic and electric fields both have the concept of poles (north and south for magnets, positive and negative for charges). Both fields interact with their respective forces by influencing the behavior of nearby objects or particles.
4. Understanding these fundamental forces is crucial for scientific research, space exploration, and technological innovations. They shape our understanding of the cosmos, guide spacecraft trajectories, and enable the development of countless devices and technologies.

