

Name _____

Gravity Unveiled: The Connection Between Earth's Composition and Gravitational Pull

Short Answer Key

1. The strength of the gravitational pull an object experiences is directly proportional to its mass. Objects with greater mass feel heavier because they have a stronger gravitational pull acting on them.
2. The four main layers of the Earth are the Crust (composed of solid rock), Mantle (semi-solid rock), Outer Core (liquid iron and nickel), and Inner Core (solid iron and nickel).
3. The distance from the Earth's center affects the strength of gravitational pull. Objects closer to the Earth's center experience a stronger gravitational pull, while those farther away experience a weaker gravitational pull.
4. Variations in gravitational strength on Earth's surface are primarily caused by differences in Earth's composition. Denser rock leads to stronger gravitational pull, while less dense rock results in weaker gravitational pull.
5. Scientists measure variations in gravity across the planet to understand Earth's composition, map geological structures, and study subsurface features like mineral deposits and oil reservoirs.

