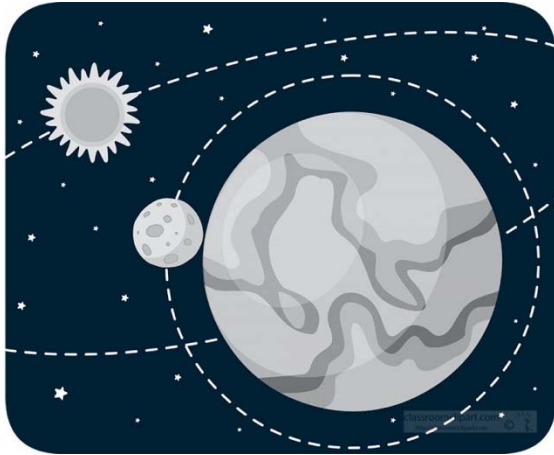


Name _____

Moon's Gravity: A Tug-of-War With Earth



Have you ever wondered why you weigh less on the Moon than on Earth? The answer lies in the fascinating world of gravity!

The Force of Gravity

Gravity is an invisible force that pulls objects toward each other. It's what keeps us grounded on Earth and the Moon.

Comparing Gravitational Pull

The Moon is much smaller and less massive than Earth. As a result, its gravitational pull is only about 1/6th as strong as Earth's. That means you would weigh much less on the Moon than on Earth.

Weight on the Moon

Your weight is the force with which Earth's gravity pulls you toward its center. On the Moon, your weight would be significantly less because the Moon's gravity is weaker.

Astronauts on the Moon

Astronauts who visit the Moon experience the difference in gravity firsthand. They can leap higher and carry heavy equipment with relative ease due to the Moon's weaker gravitational pull.

Space Exploration Challenges

Understanding the variations in gravity is essential for space exploration. Astronauts must adapt to different gravitational environments when traveling to other celestial bodies, like Mars or asteroids.