

Why is acceleration due to gravity always negative

**Solution:**

Gravity is an attractive force. The earth applies a downwards force on you, and you apply an equal and upwards force on the earth. Gravity doesn't violate Newton's 3rd law, which states that all forces (between objects) only exist in equal and opposing pairs.

Acceleration only occurs if there are no equal and opposing forces to gravity.

Normally the sign of acceleration due to gravity of earth on an object near the earth is negative, since the direction of altitude or height is normally upwards (outwards) relative to the earth.

