

Anything that has mass also has gravity. Objects with more mass have more gravity. Gravity also gets weaker with distance. So, the closer objects are to each other, the stronger their gravitational pull is.

Earth's gravity comes from all its mass. All its mass makes a combined gravitational pull on all the mass in your body. That's what gives you weight. And if you were on a planet with less mass than Earth, you would weigh less than you do here.



Image credit: NASA

You exert the same gravitational force on Earth that it does on you. But because Earth is so much more massive than you, your force doesn't really have an effect on our planet.

Universal Law of Gravity

Gravitational force between masses decreases with the distance between them, according to an inverse-square law.

Basically --> Gravity also gets weaker with distance.

each particle attracts every other particle

$$9.8\text{m/s}^2$$

[The Universal Law of Gravitation - Part 1 | Physics | Don't Memorise - YouTube](#)



The screenshot shows a YouTube video player. The video title is "Universal Law of Gravitation - Part 2 | Physics | Don't Memorise". The video content features a cartoon character sitting at a desk with a computer monitor. Two red arrows point towards each other from the monitor, representing gravitational attraction. The formula $F = G \frac{m_1 m_2}{d^2}$ is displayed in the upper right. The value of the gravitational constant is given as $G = 6.673 \times 10^{-11} \text{Nm}^2\text{kg}^{-2}$. The video player interface includes a play button, a progress bar at 1:38 / 2:19, and standard YouTube controls.

Universal Law of Gravitation - Part 2 | Physics | Don't Memorise

Acceleration

[What is Acceleration? \(Physics in simple terms \) - YouTube](#)



is the rate at which velocity changes

-Measured in m/s^2

-Speeding up or slowing down

-Even if you keep the same speed but change direction
then you have acceleration



$$\text{Acc} = \frac{V_{\text{final}} - V_{\text{initial}}}{\text{time to change}}$$

Attachments

BillNyetheScienceGuy - MAGNETISM WS.doc

BillNyetheScienceGuy - ENERGY WS.doc

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