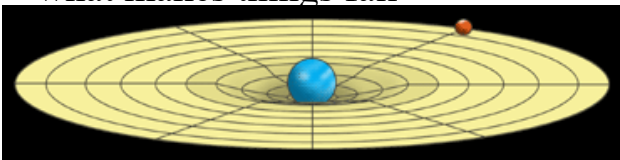
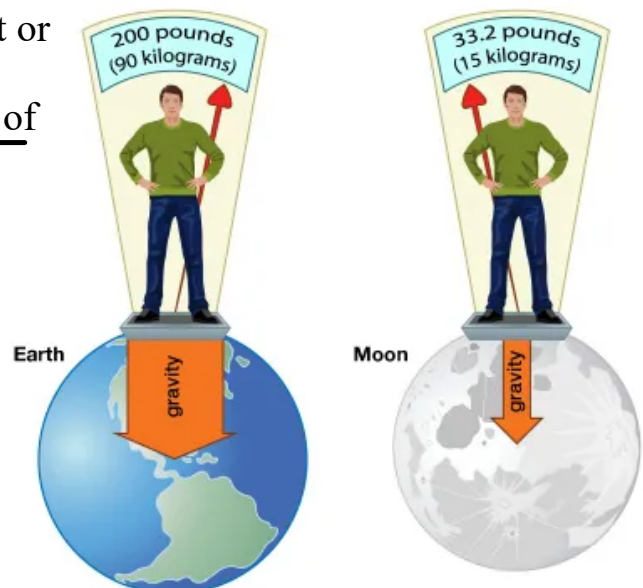


Gravity is the force by which a planet or other body draws objects toward its center. The force of gravity keeps all of the planets in orbit around the sun.

Definition of Gravity: an invisible force that pulls objects toward the center of the earth. Earth's gravity is what keeps you on the ground and what makes things fall



Effect of gravity on Earth versus on the Moon



© 2013 Encyclopædia Britannica, Inc.

Images of the Moon and Earth are not to scale

Albert Einstein described gravity as a curve in space that wraps around an object—such as a star or a planet. If another object is nearby, it is pulled into the curve [22 Surprising Facts About: Albert Einstein - YouTube](#)

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.

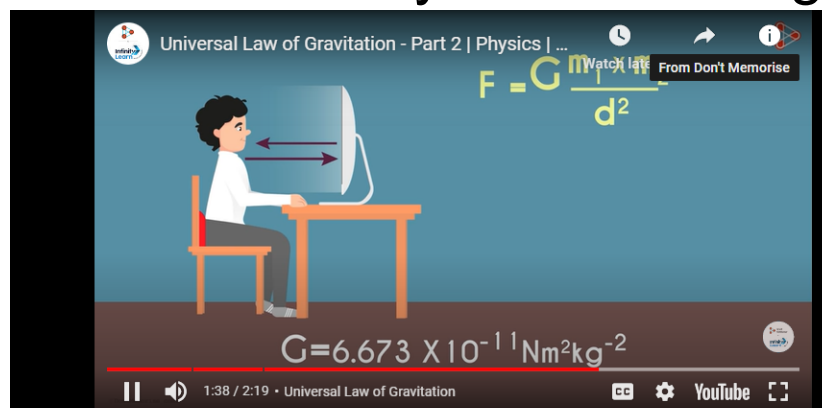
each particle attracts every other particle

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

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



increase distance you decrease gravity



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

## Attachments

---

BillNyetheScienceGuy - MAGNETISM WS.doc

BillNyetheScienceGuy - ENERGY WS.doc

BillNyetheScienceGuy - GRAVITY Ws.doc