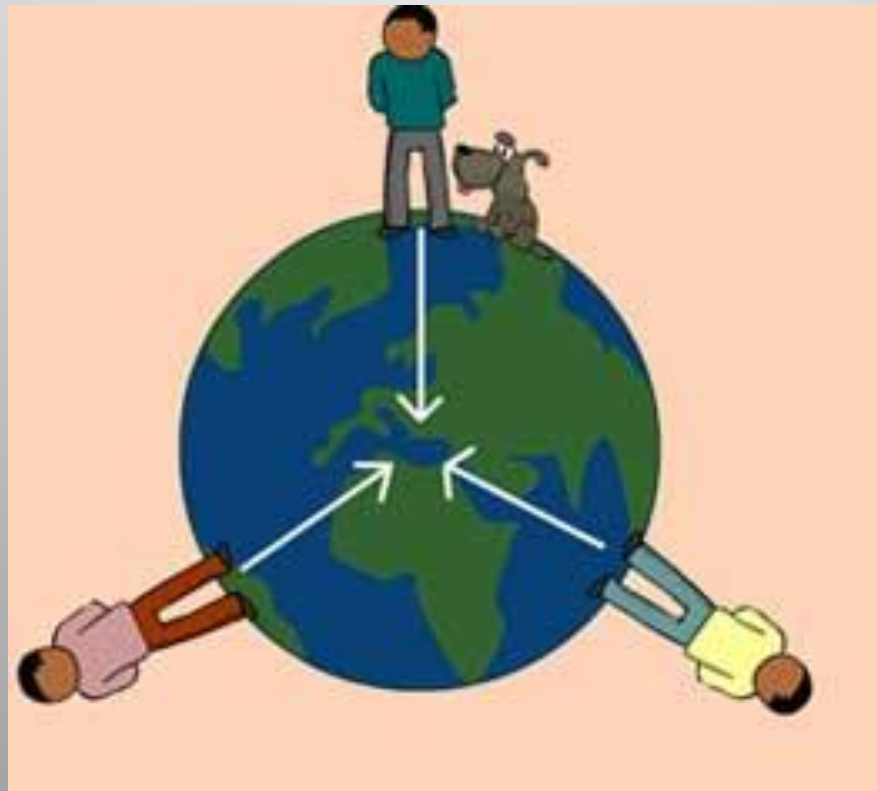


# GRAVITY



# What is gravity?

- 1. 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.
- It's like a bar grid which the Earth falls on.
- An invisible force that pulls objects toward each other. Earth's gravity is what keeps you on the ground and what makes things stay together

# Who discovered gravity?

1. Sir Isaac Newton, an English physician and mathematician discovered the existence of gravity in the 1680s. The theories related to gravitation formulated by Newton were based on the works done by Galileo Galilei in the 16th century. His works began with his desire to uncover the reason why light objects fall slower than heavy objects.
2. The story is that, Isaac saw an apple fall from a tree towards the ground and started questioning why

# Gravitational mass

1. The size of the pull depends on the mass of the objects.
2. Tides in the sea and oceans happen because of the gravitational pull of the moon.
3. 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.
4. There is no gravity in outer space.

# If you weigh 100 lb on Earth, you'd weigh...

17 lb  
on the  
moon

38 lb  
on  
Mercury

91 lb  
on  
Venus

38 lb  
on  
Mars

253 lb  
on Jupiter

107 lb  
on Saturn

91 lb  
on  
Uranus

114 lb  
on  
Neptune

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

# Gravity on Earth

- Gravity is very important to us. We could not live on Earth without it. The sun's gravity keeps Earth in orbit around it, keeping us at a comfortable distance to enjoy the sun's light and warmth. It holds down our atmosphere and the air we need to breath. Gravity is what holds our world together.