

Gravity

Gravity is a force that makes any object pull toward another object. Two objects with about the same mass attract each other equally. Earth has a lot more mass than objects on it do. Therefore, the force of gravity between Earth and an object moves the mass of the object. The force of gravity is not strong enough to move the huge mass of Earth. The mass of Earth pulls objects towards it. Match each term in the word box to its description.

Newton gravity	acceleration centrifugal	Einstein weight	tides friction	altitude mass
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- 1 _____ Everywhere in the universe, this characteristic of an object stays the same.
- 2 _____ This measure describes the amount of gravitational force of an object.
- 3 _____ Deep in space, this force of the Earth has less effect.
- 4 _____ The moon is kept in orbit by two forces. Earth's gravity pulls it toward the planet and this force, caused by its rotating, pulls it away.
- 5 _____ The force of gravity was first described mathematically by this English scientist.
- 6 _____ If an object held near the surface of Earth is released, it will fall and pick up speed, also known as this.
- 7 _____ These phenomena are caused by the gravitational attraction of the moon and the sun on Earth.
- 8 _____ A more accurate theory involving the force of gravity was later formulated by this German-born scientist.
- 9 _____ All objects accelerate at the same speed toward Earth. However, this force is the reason that a falling feather and a falling marble do not reach the ground at the same time.
- 10 _____ As this increases on Earth, gravitational pull decreases slightly because an object moves farther away from the center of the planet.