Gravity Summary Page

New words

Gravity universe objects gravitational pull

Force celestial astronauts freefall orbits galaxies formation

How gravity works

Gravity is a force of attraction between **objects**, and it affects how objects move and interact.

Every object, whether big or small, has its own gravity. The more massive an object is, the stronger its **gravitational pull**. For example, the Earth has a significant amount of mass, so it has a strong gravitational pull that keeps us grounded.

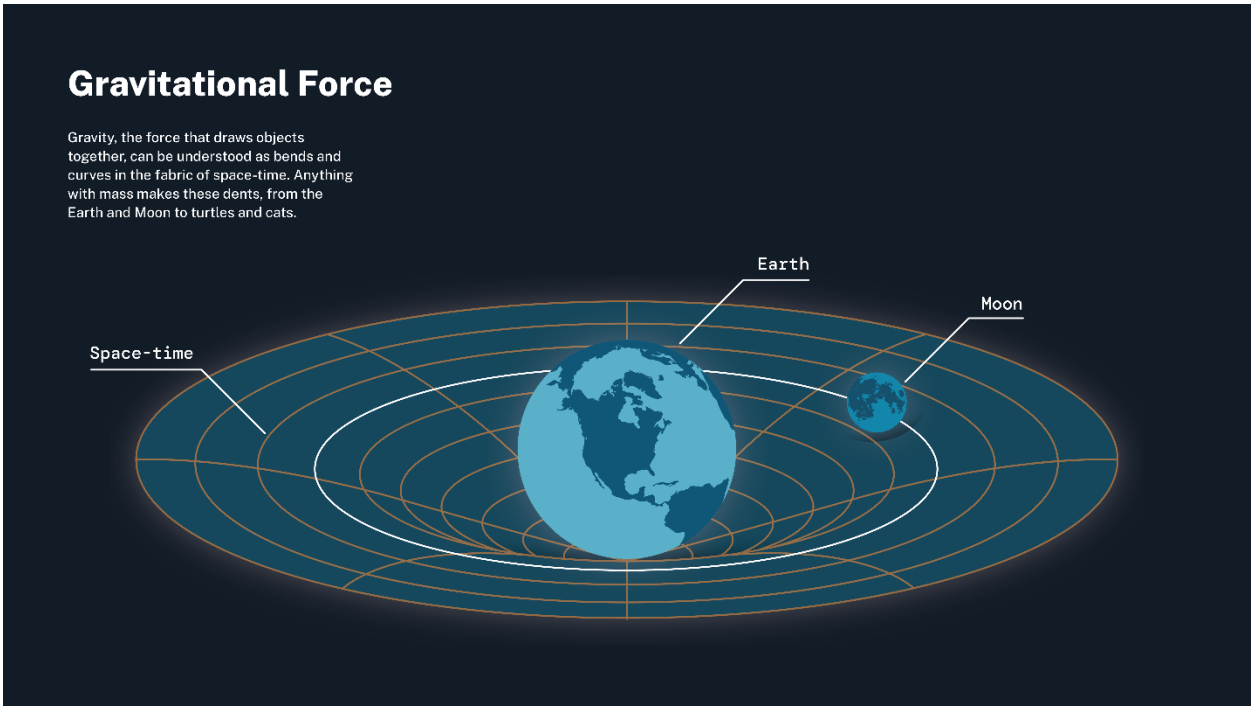
Gravity is responsible for keeping objects on the ground. When we jump, gravity pulls us back down. It's like an invisible force that pulls everything towards the center of an object.

Gravity plays a crucial role in the movement of **celestial** bodies. The Sun's massive gravitational pull keeps the planets in their **orbits.** The planets are in constant motion, moving around the Sun while being pulled by its gravity.

Furthermore, we discussed how gravity affects **astronauts** in space. In space, astronauts experience a feeling of weightlessness because they are in **freefall.** They are constantly falling towards the Earth due to gravity, but their horizontal motion keeps them from crashing. This gives them a sensation of floating.

The strength of gravity depends on the mass and distance between objects. Objects with greater mass have stronger gravity. Gravity is present everywhere in the universe and influences the **formation** of stars, **galaxies,** and other celestial bodies.

Understanding gravity helps us explain why objects fall to the ground, how planets stay in orbit, and the motion of objects in space. It is a fascinating force that shapes the world and the universe around us.


Gravitational Force
Gravity, the force that draws objects together, can be understood as bends and curves in the fabric of space-time. Anything with mass makes these dents, from the Earth and Moon to turtles and cats.
Earth
Moon
Space-time