

Weightlessness

When you are falling freely under gravity then you, and any objects around you that are falling at the same rate, appear to be weightless.

In deep space, far away from any planet or star, you are truly weightless, because the force of gravity is not acting upon you. In a spacecraft in orbit, you *appear* weightless because you are in 'free fall' along with everything else in the spacecraft.

Astronauts train in an aircraft that follows the parabolic path of a freely falling projectile, so that everything inside seems weightless. This aircraft is nicknamed the 'Vomit Comet'!