

HOW MUCH DO I WEIGH?

Your weight is determined by two factors: the amount of mass in your body and how strongly gravity pulls down on you. Because the gravitational pull differs from planet to planet, your weight will be different on each planet. Of course, you can't visit other planets and weigh yourself, but you can calculate what your weight would be on each one.

First, step on a bathroom scale and find your weight on earth. Record this amount below.

Weight on earth = _____ pounds

If your scale measures your weight in kilograms, you need to convert to pounds (1 kg = 2.2 pounds). Although in everyday usage kilograms are often used to measure weight, scientifically a kilogram is a measure of mass, which is how much of something there is and your mass does not change even if the gravitational pull changes.

The chart below shows the gravitational pull on the other planets (and plutoid) compared to the gravitational pull on earth.

Use the following formula:

Weight on other planet = weight on earth x gravitational pull

For example if your weight on earth is 80 pounds, then your weight on Mercury would be

$$80 \text{ pounds} \times 0.38 = 30.4 \text{ pounds.}$$

Planet	Gravitational pull	My weight
Mercury	0.38	
Venus	0.91	
Earth	1.0	
Mars	0.38	
Jupiter	2.64	
Saturn	1.13	
Uranus	1.17	
Neptune	1.19	
Pluto	0.08	