

Flipping Physics Lecture Notes: Weight and Mass are Not the Same

Weight	Mass
In Newtons $\left(N = \frac{kg \cdot m}{s^2}\right)$	In Kilograms
A Vector (has both magnitude and direction)	A Scalar (has magnitude only, no direction)
An Extrinsic Property	An Intrinsic Property

Weight is an extrinsic property, which means it depends on something external to itself.

 $Weight = F_g = mg$ so weight depends on the acceleration due to gravity which will change depending on the objects location.