**Vocabulary:** **Weight and Mass**



**Vocabulary**

* Balance – an instrument used to compare two masses.
	+ Usually an unknown mass on one pan is compared to a known mass on the other pan. The masses are equal when the pans are balanced.
	+ A balance cannot measure mass directly. A balance is balanced when the weight on each pan is equal. In a given location, objects with equal weights have equal masses.
* Force – something that can cause a change in motion; a push or a pull.
* Gravity – the force of attraction between objects in the universe due to their mass.
	+ Earth’s gravity causes objects to fall to Earth’s surface.
	+ Gravity is only significant when one of the objects has a lot of mass, like the Earth. There is very, very little gravitational attraction between you and your couch—but there is some!
* Mass – the amount of matter in an object.
	+ In the metric system, units for mass include the kilogram (kg) and the gram (g). There are 1000 grams in a kilogram.
* Newton – the metric unit of force and weight.
	+ On Earth’s surface, an object with a mass of one kilogram has a weight of 9.82 newtons (N).
* Spring scale – an instrument used to measure force.
	+ The more the spring is stretched, the greater the force.
* Weight – the downward force of gravity on an object.
	+ The greater the strength of gravity, the more the object weighs.
	+ The greater the mass of the object, the more it weighs.