

Three Generations of Matter (Fermions) spin 1/2

	I	II	III
mass →	2.4 MeV	1.27 GeV	173.2 GeV
charge →	$\frac{2}{3}$	$\frac{2}{3}$	$\frac{2}{3}$
name →	Left u Right up	Left c Right charm	Left t Right top
Quarks	4.8 MeV	104 MeV	4.2 GeV
	$-\frac{1}{3}$	$-\frac{1}{3}$	$-\frac{1}{3}$
	Left d Right down	Left s Right strange	Left b Right bottom
Leptons	~ 10 keV	\sim GeV	\sim GeV
	0	0	0
	Left ν_e Right electron neutrino	Left ν_μ Right muon neutrino	Left ν_τ Right tau neutrino
	0	0	0
	Left N_1 Right	Left N_2 Right	Left N_3 Right
	0.511 MeV	105.7 MeV	1.777 GeV
	-1	-1	-1
	Left e Right electron	Left μ Right muon	Left τ Right tau

0	g
0	gluon
0	γ
0	photon
91.2 GeV	Z^0
0	weak force
80.4 GeV	W^\pm
± 1	weak force

126 GeV	H
0	Higgs boson

spin 0

Bosons (Forces) spin 1