

# 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 <b>u</b> Right up	Left <b>c</b> Right charm	Left <b>t</b> Right top
Quarks	4.8 MeV	104 MeV	4.2 GeV
	$-\frac{1}{3}$	$-\frac{1}{3}$	$-\frac{1}{3}$
	Left <b>d</b> Right down	Left <b>s</b> Right strange	Left <b>b</b> Right bottom
	$0$	$0$	$0$
	Left <b><math>\nu_e</math></b> Right electron neutrino	Left <b><math>\nu_\mu</math></b> Right muon neutrino	Left <b><math>\nu_\tau</math></b> Right tau neutrino
Leptons	0.511 MeV	105.7 MeV	1.777 GeV
	-1	-1	-1
	Left <b>e</b> Right electron	Left <b><math>\mu</math></b> Right muon	Left <b><math>\tau</math></b> Right tau

Bosons (Forces) spin 1	0	<b>g</b>	gluon	
	0	<b><math>\gamma</math></b>	photon	
	91.2 GeV	$0$	<b>Z<sup>0</sup></b>	weak force
	80.4 GeV	$\pm 1$	<b>W<sup>±</sup></b>	weak force

126 GeV	<b>H</b>	Higgs boson
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spin 0