

Bottom Lambda (20 Points)

Up Quark

Electric Charge: $+2/3$
Spin: $1/2$
Mass: 2.3 MeV
Half Life: Stable

Colour Charge: Yes
Baryon Number: $1/3$
1st generation (1 point)

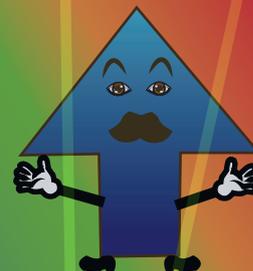


Neutral Sigma (15 Points)

Up Quark

Electric Charge: $+2/3$
Spin: $1/2$
Mass: 2.3 MeV
Half Life: Stable

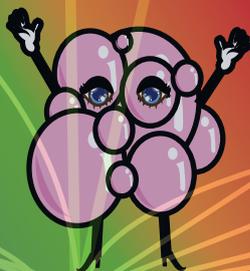
Colour Charge: Yes
Baryon Number: $1/3$
1st generation (1 point)



Bottom Quark

Electric Charge: $-1/3$
Spin: $1/2$
Mass: 4.18 GeV
Half Life: 1.3 picoseconds

Colour Charge: Yes
Baryon Number: $1/3$
3rd generation (3 points)



Strange Quark

Electric Charge: $-1/3$
Spin: $1/2$
Mass: 95 MeV
Half Life: 0.1 nanoseconds

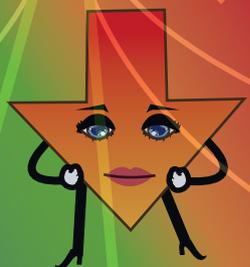
Colour Charge: Yes
Baryon Number: $1/3$
2nd generation (2 points)



Down Quark

Electric Charge: $-1/3$
Spin: $1/2$
Mass: 4.8 MeV
Half Life: Stable

Colour Charge: Yes
Baryon Number: $1/3$
1st generation (1 point)



Down Quark

Electric Charge: $-1/3$
Spin: $1/2$
Mass: 4.8 MeV
Half Life: Stable

Colour Charge: Yes
Baryon Number: $1/3$
1st generation (1 point)



Electric Charge: 0
Spin: $1/2$
Mass: 5619 MeV
Half Life: 1.4×10^{-12} sec

Lambda baryons consist of one up quark, one down quark and one higher generation quark with isospin 0.

The Lambda baryon was discovered in 1950 by V. D. Hopper and S. Biswas of the University of Melbourne.

Electric Charge: +1
Spin: $1/2$ or $3/2$
Mass: 2286.5 MeV
Half Life: 2.0×10^{-13} sec

Sigma baryons consist of two first generation quark and one higher generation quark with isospin 1.

There are many different types of Sigma baryons with different quark compositions and spins.