Proton (10 Points)

Up Quark

Electric Charge: +2/3
Spin: 1/2
Mass: 2.2 MeV
Mean Lifetime: Stable

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

Up Quark

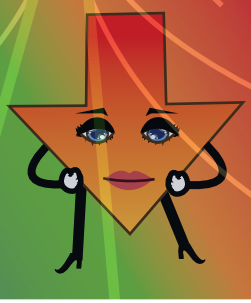
Electric Charge: +2/3
Spin: 1/2
Mass: 2.2 MeV
Mean Lifetime: Stable

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

Down Quark

Electric Charge: -1/3
Spin: 1/2
Mass: 4.7 MeV
Mean Lifetime: Stable

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



Electric Charge: +1
Spin: 1/2
Mass: 938.27 MeV
Mean Lifetime: >10^{29} years

Protons are subatomic particles that are present in the nucleus of every atom.

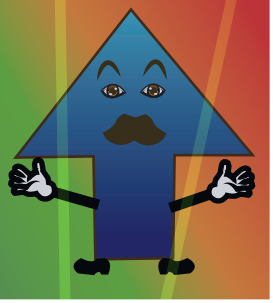
The number of protons in the nucleus determines the element or type of atom.

Neutron (10 Points)

Up Quark

Electric Charge: +2/3
Spin: 1/2
Mass: 2.2 MeV
Mean Lifetime: Stable

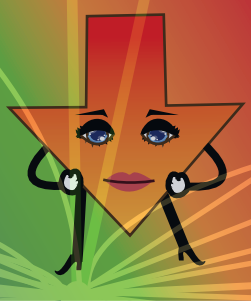
Colour Charge: Yes
Baryon Number: 1/3
1st generation (1 point)



Down Quark

Electric Charge: -1/3
Spin: 1/2
Mass: 4.7 MeV
Mean Lifetime: Stable

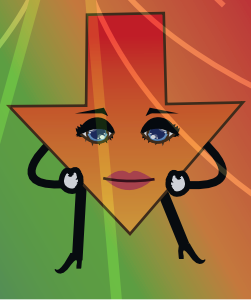
Colour Charge: Yes
Baryon Number: 1/3
1st generation (1 point)



Down Quark

Electric Charge: -1/3
Spin: 1/2
Mass: 4.7 MeV
Mean Lifetime: Stable

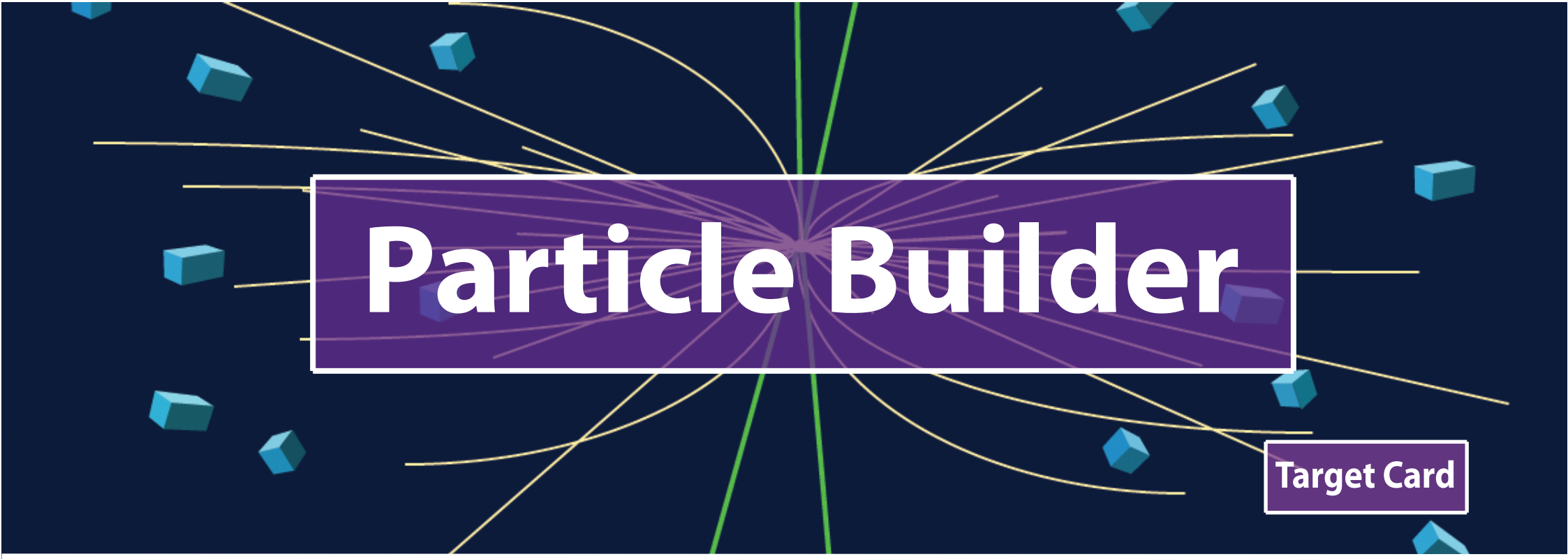
Colour Charge: Yes
Baryon Number: 1/3
1st generation (1 point)

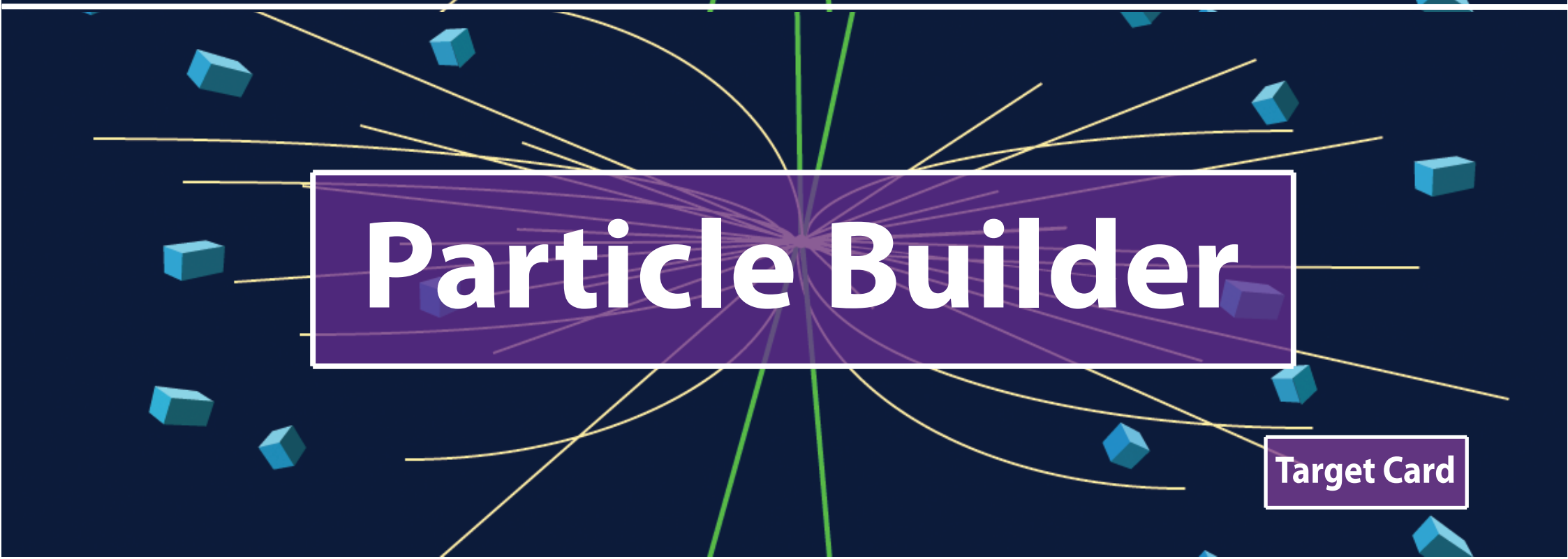


Electric Charge: 0
Spin: 1/2
Mass: 939.565 MeV
Mean Lifetime: 878 s

Neutrons are subatomic particles that are present in the nucleus of all atoms except hydrogen-1.

The number of neutrons determines the isotope of the element and its stability.


Particle Builder
Target Card


Particle Builder
Target Card