

gridlocks – can you unlock the grid?

Subatomic particles (14–16)

Before you answer the puzzles below fill in the table of the properties of the subatomic particles using:

proton 1 very small electron

Name	Mass	Location	Charge
	1	in the nucleus	+1
neutron		in the nucleus	0
		in orbit around the nucleus	-1

Gridlock 1

Each row, column and 2 x 2 box contains information about a proton, neutron and electron. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

name		mass	
proton			
			proton
		neutron	
mass		name	

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Gridlock 2

Each row, column and 2 x 2 box contains information about a proton, neutron and electron.

name		charge	
neutron			
		proton	
	-1		
charge		name	

Gridlock 3

Each row, column and 2 x 2 box contains information about a proton, neutron and electron.

mass		location	
	1		
			in the nucleus
	in orbit around the nucleus		0
in the nucleus			-1
location		charge	

Subatomic particles (14–16) – answers

Name	Mass	Location	Charge
proton	1	in the nucleus	+1
neutron	1	in the nucleus	0
electron	very small	in orbit around the nucleus	-1

Gridlock 1 – answers

name		mass	
proton	neutron	very small	
electron		1	1
1	very small		proton
	1	neutron	electron
mass		name	

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Gridlock 2 – answers

name		charge	
neutron		-1	+1
electron	proton		0
	0	proton	electron
+1	-1	neutron	
charge		name	

Gridlock 3 – answers

mass		location	
very small	1	in the nucleus	
	1	in orbit around the nucleus	in the nucleus
in the nucleus	in orbit around the nucleus		0
in the nucleus		+1	-1
location		charge	