

## **Atomic structure (16–18)**

Before you answer the Gridlocks below, fill in the table of isotopes:

isotope	number of protons	neutrons	electrons
<sup>19</sup> 9F			
<sup>35</sup> 17 <b>C</b> I			2,8,7
<sup>2</sup> 1H			
<sup>7</sup> 3Li			

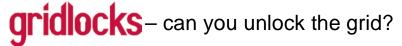
### **Gridlock 1**

Each row, column and 2 x 2 box contains information about each of the isotopes. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

isotope		number of protons	
<sup>35</sup> 17 <b>C</b> I			
		3	
		2,7	
	1		
neutrons		elec	trons







## **Gridlock 2**

Each row, column and 2 x 2 box contains information about each of the isotopes. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

isotope		number of protons	
	<sup>19</sup> 9F		3
			9
17			1
number of protons		neutrons	

### **Gridlock 3**

This Gridlock is based on 4 different elements; you will have to work out what they are.

element		number of protons	
O			6
			2,8,1
11			
number o	of protons	elect	rons





# gridlocks - can you unlock the grid?

## Atomic structure (16-18) - answers

isotope	number of protons	neutrons	electrons
<sup>19</sup> 9F	9	10	2,7
<sup>35</sup> 17 <b>C</b> I	17	18	2,8,7
<sup>2</sup> 1H	1	1	1
<sup>7</sup> ₃Li	3	4	2,1

### Gridlock 1 - answers

isotope		number of protons	
<sup>35</sup> 17 <b>CI</b>	<sup>7</sup> 3Li	1	9
<sup>2</sup> ₁H	<sup>19</sup> 9F	3	17
4	18	2,7	1
10	1	2,8,7	2,1
neutrons		elect	trons





# gridlocks - can you unlock the grid?

## Gridlock 2 - answers

isotope		number of protons	
<sup>2</sup> 1H	<sup>19</sup> 9F	17	3
<sup>7</sup> ₃Li	<sup>35</sup> 17CI	1	9
9	1	4	18
17	3	10	1
number of protons		neut	rons

#### Gridlock 3 - answers

element		number of protons	
0	Na	2	6
He	С	11	8
6	2	2,6	2,8,1
11	8	2,4	2
number	of protons	elect	trons



