# gridlocks – can you unlock the grid?

### Types of bonding

Before you answer the puzzles below fill in the table of the types of bonding using:

ionic	aluminium	metal & metal	water
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combination of elements	type of bonding	example
non-metal & non-metal	covalent	
non-metal & metal		sodium chloride
	metallic	

### Gridlock 1

Each row, column and  $2 \times 2$  box contains information about each type of bonding. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

combination of elements		type of bonding	
non-metal & metal			
		non-metal & non-metal	
	metallic		
type of bonding		combination	of elements





### **gridlocks** – can you unlock the grid? Gridlock 2

### Each row, column and 2 x 2 box contains information about each type of bonding.

combination of elements		type of bonding	
	non-metal & non-metal		
			covalent
	metallic		sodium chloride
ionic			aluminium
type of bonding		exa	mple

### Gridlock 3

Each row, column and 2 x 2 box contains information about each type of bonding.

combination of elements		type of bonding	
non-metal & metal			covalent
metallic			
type of bonding		combination	of elements



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## gridlocks - can you unlock the grid?

### Types of bonding – answers

Before you answer the puzzles below fill in the table of the types of bonding using:

ionic	aluminium	metal & met	al water
combination of elements	typ	e of bonding	example
non-metal & non-metal		covalent	water
non-metal & metal		ionic	sodium chloride
metal & metal		metallic	aluminium

### Gridlock 1 – answers

Each row, column and  $2 \times 2$  box contains information about each type of bonding. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

combination of elements		type of bonding	
non-metal & metal		metallic	covalent
metal & metal	non-metal & non-metal		ionic
	ionic	non-metal & non-metal	metal & metal
covalent	metallic	non-metal & metal	
type of bonding		combination	of elements





# gridlocks – can you unlock the grid?

### Gridlock 2 – answers

Each row, column and 2 x 2 box contains information about each type of bonding.

combination of elements		type of bonding	
metal & metal	non-metal & non-metal	ionic	
	non-metal & metal	metallic	covalent
covalent	metallic		sodium chloride
ionic		water	aluminium
type of bonding		exa	mple

### Gridlock 3 – answers

Each row, column and 2 x 2 box contains information about each type of bonding.

combination of elements		type of bonding	
non-metal & metal	metal & metal		covalent
	non-metal & non-metal	ionic	metallic
covalent	ionic	metal & metal	
metallic		non-metal & non-metal	non-metal & metal
type of bonding		combination	of elements



