

gridlocks – can you unlock the grid?

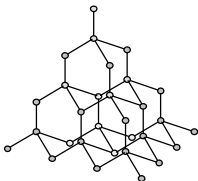
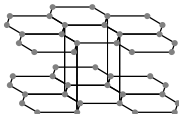
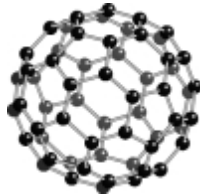
Allotropes of carbon

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

rigid giant 3d lattice

buckminsterfullerene

electrical conductor

Allotropes of carbon			
Name	diamond	graphite	
Diagram			
Property	hard		will dissolve in oil
Arrangement of carbon atoms		stacks of flat sheets	mini sphere like a football

Gridlock 1

Each row, column and 2 x 2 box contains the three allotropes. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

name		arrangement of carbon atoms	
diamond			gridlocks
	gridlocks		
	mini sphere like a football	gridlocks	diamond
gridlocks		graphite	
arrangement of carbon atoms		name	

gridlocks – can you unlock the grid?

Gridlock 2

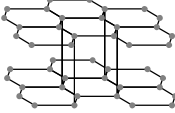
Each row, column and 2 x 2 box contains information about the three allotropes of carbon.

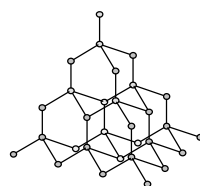
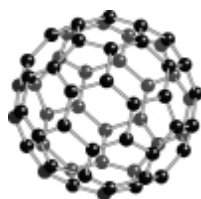
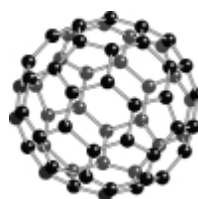
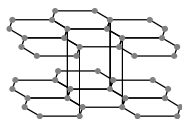
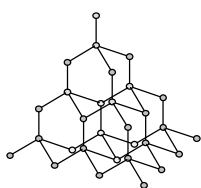
name		property	
	diamond		gridlocks
gridlocks			hard
	will dissolve in oil	gridlocks	stacks of flat sheets
electrical conductor	gridlocks		mini sphere like a football
property		arrangement of carbon atoms	

gridlocks – can you unlock the grid?

Gridlock 3

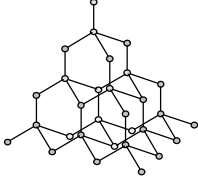
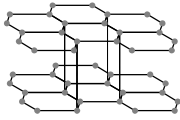
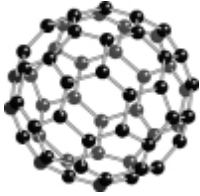
Each row, column and 2 x 2 box contains the three allotropes. Draw arrows to link diagrams to the blank boxes or cut them out and stick them in.

name		diagram	
	gridlocks		
buckminsterfullerene		gridlocks	
gridlocks		diamond	
			gridlocks
diagram		name	



gridlocks – can you unlock the grid?

Allotropes of carbon – answers

	Allotropes of carbon		
Name	diamond	graphite	buckminsterfullerene
Diagram			
Property	hard	electrical conductor	will dissolve in oil
Arrangement of carbon atoms	rigid giant 3d lattice	stacks of flat sheets	mini sphere like a football

Gridlock 1 – answers

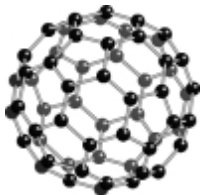
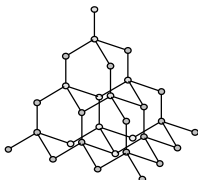
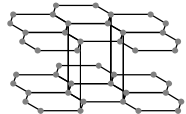
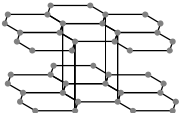
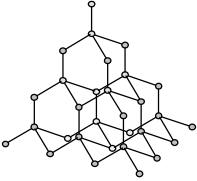
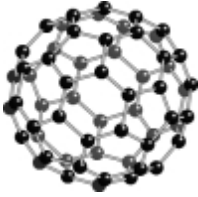
name		arrangement of carbon atoms	
diamond	graphite	mini sphere like a football	gridlocks
buckminsterfullerene	gridlocks	rigid giant 3d lattice	stacks of flat sheets
stacks of flat sheets	mini sphere like a football	gridlocks	diamond
gridlocks	rigid giant 3d lattice	graphite	buckminsterfullerene
arrangement of carbon atoms		name	

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Gridlock 2 – answers

name		property	
buckminsterfullerene	diamond	electrical conductor	gridlocks
gridlocks	graphite	will dissolve in oil	hard
hard	will dissolve in oil	gridlocks	stacks of flat sheets
electrical conductor	gridlocks	rigid giant 3d lattice	mini sphere like a football
property		arrangement of carbon atoms	

Gridlock 3 – answers

name		diagram	
graphite	gridlocks		
buckminsterfullerene	diamond	gridlocks	
gridlocks		diamond	buckminsterfullerene
		graphite	gridlocks
diagram		name	