

# Compounds ending in 'ate'

If a compound has 3 elements in it with oxygen as one of them the names often end in 'ate' (if hydrogen is with the oxygen it can be a hydroxide rather than an 'ate'). Before you answer the puzzles below fill in the table of compounds using:

silver nitrate	copper sulfate	zinc carbonate sodium chlorate	
Name		Elements in the compound	
calcium carbonate		calcium, carbon and oxygen	
		copper, sulfur and oxygen	
		silver, nitrogen and oxygen	
sodiui	m phosphate	sodium, phosphorus and oxygen	
potassium manganate		potassium, manganese and oxygen	
		sodium, chlorine and oxygen	
potass	potassium chromate potassium, chromium and ox		
		zinc, carbon and oxygen	

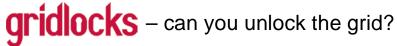
#### Gridlock 1

Each row, column and 2 x 2 box contains information about the first four compounds listed above. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

compound		made up of the elements	
calcium carbonate			sodium, phosphorus and oxygen
	sodium phosphate		
			calcium carbonate
		copper sulfate	
made up of	the elements	comp	oound







# **Gridlock 2**

Each row, column and 2 x 2 box contains information about each of the last four compounds in the table.

compound		made up of the elements	
sodium chlorate			
		zinc, carbon and oxygen	
		potassium manganate	
	potassium, chromium and oxygen		
made up of the elements		comp	pound

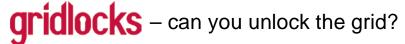
#### **Gridlock 3**

You will need to identify which four compounds are in this puzzle.

compound		made up of the elements	
	zinc carbonate		potassium, manganese and oxygen
			zinc, carbon and oxygen
copper, sulfur and oxygen			silver nitrate
made up of t	the elements	comp	oound







# Compounds ending in 'ate' - answers

If a compound has 3 elements in it with oxygen as one of them the names often end in 'ate' (if hydrogen is with the oxygen it can be a hydroxide rather than an 'ate'). Before you answer the puzzles below fill in the table of compounds using:

silver nitrate	copper sulfate	zinc carbonate	sodium chlorate	
	Name		Elements in the compound	
calcium carbonate		calcium,	carbon and oxygen	
сорі	per sulfate	copper,	sulfur and oxygen	
silv	silver nitrate silver, nitrog		trogen and oxygen	
sodiur	sodium phosphate		sodium, phosphorus and oxygen	
potassiu	ım manganate	potassium, manganese and oxygen		
sodiu	sodium chlorate		chlorine and oxygen	
potassi	um chromate	romate potassium, chromium and oxygen		
zinc	carbonate	zinc, carbon and oxygen		

#### Puzzle 1 - answers

Each row, column and 2 x 2 box contains information about the first four compounds listed above. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

compound		made up of the elements	
calcium carbonate	copper sulfate	silver, nitrogen and oxygen	sodium, phosphorus and oxygen
silver nitrate	sodium phosphate	calcium, carbon and oxygen	copper, sulfur and oxygen
copper, sulfur and oxygen	silver, nitrogen and oxygen	sodium phosphate	calcium carbonate
sodium, phosphorus and oxygen	calcium, carbon and oxygen	copper sulfate	silver nitrate
made up of the elements		comp	oound





# gridlocks – can you unlock the grid?

## Puzzle 2 - answers

Each row, column and 2 x 2 box contains information about each of the last four compounds in the table.

compound		made up of the elements	
sodium chlorate	zinc carbonate	potassium, chromium and oxygen	potassium, manganese and oxygen
potassium chromate	potassium manganate	zinc, carbon and oxygen	sodium chlorine and oxygen
zinc, carbon and oxygen	sodium, chlorine and oxygen	potassium manganate	potassium chromate
potassium, manganese and oxygen	potassium, chromium and oxygen	sodium chlorate	zinc carbonate
made up of the elements		comp	oound

### Puzzle 3 – answers

You will need to identify which four compounds are in this puzzle.

compound		made up of the elements	
silver nitrate	zinc carbonate	copper, sulfur and oxygen	potassium, manganese and oxygen
potassium manganate	copper sulfate	silver, nitrogen and oxygen	zinc, carbon and oxygen
zinc, carbon and oxygen	silver, nitrogen and oxygen	potassium manganate	copper sulfate
copper, sulfur and oxygen	potassium, manganese and oxygen	zinc carbonate	silver nitrate



made up of the elements



compound