

Goal • Practise writing the names and formulas of polyatomic ions.

What to Do

1. Complete the chart. You can use an ion chart to help you find the names and formulas of polyatomic ions.

Ions		Formula	Name	Number of Atoms in Formula
Na ⁺	SO ₄ ²⁻	Na ₂ SO ₄	sodium sulphate	7
NH ₄ ⁺	SO ₄ ²⁻	(NH ₄) ₂ SO ₄	ammonium sulphate	15
Cu ²⁺	NO ₃ ⁻			
Ag ⁺	ClO ₃ ⁻			
NH ₄	PO ₄ ³⁻			
Zn ²⁺	HCO ₃ ⁻			
Ni ²⁺	OH ⁻			
Al ³⁺	CN ⁻			
U ⁵⁺	SO ₃ ²⁻			
Cr ²⁺	HSO ₄ ⁻			
Mn ⁴⁺	CH ₃ COO ⁻			
Ca ²⁺	CO ₃ ²⁻			
Cu ²⁺	NO ₂ ⁻			
Au ³⁺	PO ₄ ³⁻			
K ⁺	CrO ₄ ²⁻			
Na ⁺	Cr ₂ O ₇ ²⁻			

2. Complete the chart. You can use an ion chart to help you find the names and formulas of polyatomic ions.

Ions	Ions (optional)	Formula	Name	Number of Atoms
ammonium permanganate	$\text{NH}_4^+ \text{MnO}_4^-$	NH_4MnO_4	ammonium permanganate	10
gold(III) hydrogen sulphide	$\text{Au}^{3+} \text{HS}^-$	$\text{Au}(\text{HS})_3$	gold(III) hydrogen sulphide	7
cobalt(II) phosphate				
sodium nitrate				
calcium nitrite				
magnesium acetate				
potassium carbonate				
uranium(VI) hydroxide				
lithium nitrite				
zinc perchlorate				
cesium dichromate				
sodium cyanide				
iron(II) chromate				
ammonium sulphate				
calcium hypochlorite				
aluminum permanganate				