

Video worksheet – writing the chemical equations for acid reactions.

1. Magnesium metal is placed in a solution of sulfuric acid.
Give the balanced chemical equation for this reaction.

2. Sodium carbonate (Na_2CO_3) powder is placed in a solution of sulfuric acid.
Give the balanced chemical equation for this reaction.

3. Magnesium oxide (MgO) powder is placed in a solution of phosphoric acid.
Give the balanced chemical equation for this reaction.

4. Aluminium powder is placed in a solution of sulfuric acid.
Give the balanced chemical equation for this reaction.

5. Zn carbonate (ZnCO_3) powder is placed in a solution of hydrochloric acid.
Give the balanced chemical equation for this reaction.

6. Aluminium oxide (Al_2O_3) powder is placed in a solution of phosphoric acid.
Give the balanced chemical equation for this reaction.

Anions

1-		2-		3-	
Name	Formula	Name	Formula	Name	Formula
bromide	Br ⁻	carbonate	CO ₃ ²⁻	citrate	C ₆ H ₅ O ₇ ³⁻
chlorate	ClO ₃ ⁻	chromate	CrO ₄ ²⁻	nitride	N ³⁻
chloride	Cl ⁻	dichromate	Cr ₂ O ₇ ²⁻	phosphate	PO ₄ ³⁻
chlorite	ClO ₂ ⁻	monohydrogen phosphate	HPO ₄ ²⁻		
cyanide	CN ⁻	oxide	O ²⁻		
dihydrogen phosphate	H ₂ PO ₄ ⁻	peroxide	O ₂ ²⁻		
ethanoate	CH ₃ COO ⁻	sulfate	SO ₄ ²⁻		
fluoride	F ⁻	sulfide	S ²⁻		
hydrogen carbonate	HCO ₃ ⁻	sulfite	SO ₃ ²⁻		
hydrogen sulfate	HSO ₄ ⁻	thiosulfate	S ₂ O ₃ ²⁻		
hydrogen sulfide	HS ⁻				
hydrogen sulfite	HSO ₃ ⁻				
hydroxide	OH ⁻				
hypochlorite	ClO ⁻				
iodide	I ⁻				
nitrate	NO ₃ ⁻				
nitrite	NO ₂ ⁻				
perchlorate	ClO ₄ ⁻				
permanganate	MnO ₄ ⁻				

Cations

1+		2+		3+	
Name	Formula	Name	Formula	Name	Formula
ammonium	NH ₄ ⁺	barium	Ba ²⁺	aluminium	Al ³⁺
copper(I)	Cu ⁺	calcium	Ca ²⁺	chromium(III)	Cr ³⁺
hydronium	H ₃ O ⁺	copper(II)	Cu ²⁺	iron(III)	Fe ³⁺
lithium	Li ⁺	iron(II)	Fe ²⁺	4+	
potassium	K ⁺	lead(II)	Pb ²⁺	titanium(IV)	Ti ⁴⁺
silver	Ag ⁺	magnesium	Mg ²⁺		
sodium	Na ⁺	mercury(II)	Hg ²⁺		
		nickel(II)	Ni ²⁺		
		tin(II)	Sn ²⁺		
		zinc	Zn ²⁺		