

Chemical Bonding— Master Materials Guide



Materials listed below are recommended
for a class of 30 students working in pairs.

Experiments and Demonstrations

Chemicals	Flinn Scientific Catalog No.	Properties of Solids	Formula of an Ionic Compound	Lewis Structures and Molecular Geometry	The Color of Chemistry	Go Fish for an Ion	Electronegativity	Splatter Test	Graphite Disk Demonstration	Properties of Metals	Super Duper Polymer
Acetone	A0009							5 mL			
Alizarin Red S	A0209				1 g						
Aluminum strips	A0178	1									
Aluminum shot	A0262	1 g									
Aluminum potassium sulfate	A0265				2 g						
Calcium oxide	C0263				1 g						
Candles	C0192	1									
Congo red	C0120				1 g						
Crystal violet	C0280				1 g						
Cupric chloride solution, 0.1 M	C0382		100 mL								
Ethyl alcohol	E0007							5 mL			
Food coloring	V0003										optional
Fluorescein	F0043										optional
Halite	AP4916	1									
Hexanes	H0046	100 mL						50 mL			
Indigo	I0057				2 g						
Iron nails	I0032	1									
Malachite green	M0129				1 g						
Methyl alcohol	M0054										25 mL
Methyl orange	M0076				2 g						
Quartz, agate	AP4930	1									
Sand	S0003	5 g									
Sodium carbonate	S0051				4 g						
Sodium chloride	S0061	5 g									
Sodium dithionite	S0446				6 g						
Sodium hydroxide solution, 3 M	S0447				6 mL						
Sodium phosphate tribasic solution, 0.1 M	S0250		100 mL								
Sodium sulfate	S0105				3 g						
Sodium sulfate decahydrate	S0225				6 g						
Stearic acid	S0356	5 g									
Sucrose	S0134	5 g									
Sulfuric acid, 18 M	S0228				1 mL						
Trichloroethylene	T0037							50 mL			

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Glassware											
Beakers											
150-mL	GP1015	5									
400-mL	GP1025				14						
600-mL	GP1030										2
1-L	GP1040				7						
Graduated cylinders											
25-mL	GP2010										1
50-mL	GP2015								2		
Stirring rods	GP5075	15			10				1		1
Test tubes											
12 × 75 mm	GP6062		105								
13 × 100 mm	GP6063	75									
General Equipment and Miscellaneous											
Balance, centigram	OB2059	3									1
Bunsen burner	AP5344	15							1		
Ceramic fiber squares	AP1243								1		
Chenille wires	AP8862								1		
Conductivity meter	AP1493	5									
Crucible tongs	AP8266								1		
Evaporating dish, aluminum	AP6390	15									
Felt tip pen	AP1297		15		10						
Forceps, specimen	AB1093				30						
Go Fish for an Ion game	AP6131					1					
Hot plate	AP4674	5			7						
Inorganic/Organic Teacher Model Set	AP5455			1							
Metric ruler	AP4684		15								
Mortar and pestle	AP6066	5									
Multifiber test fabric	AP6135				2 m						
Ointment jar bottle with cap, 240-mL	AP8446								2		
Periodic table	AP9020			30							
Pipet, Beral-type, graduated	AP1721	30	30					3			
Reaction plate, 24-well	AP1447	15									

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General Equipment and Miscellaneous, continued											
Scissors	AP5394				10					1	
Shapes of Molecules Model Set	AP5456			3							
Spatula	AP1323	15									
Styrofoam® balls, 1.5-inch	AP2280						4				
Styrofoam® balls, 2-inch	AP2281								25		
Super-Duper Polymer Gel	AP4556										4 g
Support stand	AP8226						2				
Test tube clamp	AP8217	15									
Test tube rack	AP5999	15	15								
Wash bottle	AP1668	15			30						
Water, distilled or deionized	W0007	✓			✓		✓	✓			
Weighing dishes	AP1279				70						
Wooden splints	AP4455		100								