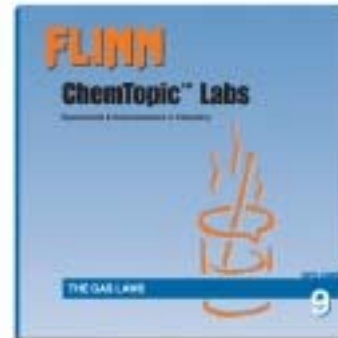


The Gas Laws— Master Materials Guide



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

Experiments and Demonstrations

	Flinn Scientific Catalog No.	Boyle's Law in a Bottle	Charles's Law and Absolute Zero	Molar Volume of Hydrogen	Technology and the Forgotten Gas Law	The Collapsing Can	Massing Gases	Molar Mass of Butane	Diffusion of Gases	Construction of Gas Volume Cubes	Carresian Drivers
Chemicals											
Ammonium hydroxide (conc), 14.8 M	A0174							5 mL			
Copper wire, 18-gauge	C0148			1.5 m							
Hydrochloric acid (conc), 12M	H0031			83 mL				2 mL			
Helium, lecture bottle	LB1010	1				1					
Hydrogen, lecture bottle	LB1015	1				1					
Magnesium ribbon	M0139			30 cm							
Nitrogen, lecture bottle	LB1020	1				1					
Phenolphthalein indicator solution	P0019							5 mL			
Sodium chloride	S0061		300 g								
Thymol blue indicator solution	T0045							1 mL			
Glassware											
Beakers											
400-mL	GP1025	35	15	15							
600-mL	GP1030									1	
1-L	GP1040				15						
Graduated cylinders											
10-mL	GP2005		15								
100-mL	GP2020						1				
Erlenmeyer flasks, 125-mL	GP3040				15						
General Equipment and Miscellaneous											
Balance, milligram (0.001-g precision)	AP9161					1					
Balance, centigram (0.01-g precision)	OB2059						1				
Barometer	AP1884	1	1				1				
Beaker tongs	AP8236					1					
Bunsen burner	AP5344					1					
Clamp, Day pinchcock	AP8211						2				
Clamp, single buret	AP1034				15			2			
Collapsing Can Demonstration	AP4695					1					
Cork borer 12–20 mm	AP1883						1				
Cotton balls	FB0680							12			

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General Equipment and Miscellaneous, cont'd.											
Felt tip pen	AP1297									5	
Glass demonstration tube	GP9146							1			
Glass tubing cutter	AP5418							1			
Gloves, heat-resistant	SE1031			7							
Gloves, latex	AP4429							4			
Gloves, Zetex™	AP3240				1						
Hot plate	AP4674	5		7	1						
LabPro Interface System	TC1500			15							
Lecture bottle control valve	LB1051	1				1					
LoggerPro Software	TC1421			1							
Massing Gases Demonstration	AP6299						1				
Medicine dropper	AP5102					2					
Meter stick	AP8294								5		
Metric ruler	AP4684			15							
Pipets, Beral-type, graduated	AP1721			30							
Pipet, jumbo	AP8850			15							1
Pneumatic trough	AP8334					1					
Pressure bottle	AP5930	5									
Gas pressure sensor	TC1505			15							
Rubber stopper, one-hole, size 2	AP2302			15							
Rubber stopper, size 5	AP2227							1			
Rubber stopper, size 10	AP2234					1					
Scissors —or— Wire cutters	AP8949 AP5898			5							
Scissors, student	AP5394								5	1	
Scoop spatula	AP1323	7									
Stopcock grease	AP1095	1									
Support stand	AP8226			15				2			
Syringe, 10-mL	AP1730	5	7								
Syringe, 30-mL	AP1732		7								

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General Equipment and Miscellaneous, cont'd.											
Syringe, 60-mL	AP8754						1				
Syringe tip cap	AP8958	5	14				1				
Temperature sensor	TC1502				15						
Thermometer, digital	AP6049		7	15	optional			1			
Tongue depressors	AP4412		15								
Trays	AP5423				optional						
Tubing, latex	AP2076						8"				
Wash bottle	AP1668				15						
Water, distilled or deionized	W0007, W0001				✓						