

Equilibrium— 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.	Exploring Equilibrium	Restoring Balance	The Equilibrium Constant	Gas Phase Equilibrium	Penny-Arte Equilibrium	Equilibrium Water Games	Equilibrium in a Syringe	Thionin—The Two-Faced Solution	An Overhead Equilibrium	Pink and Blue
Acetone	A0009		20 mL								
Bromocresol green indicator solution, 0.04%	B0064	15 mL					5 mL				
Calcium chloride pellets	C0016		3 g								
Carbon dioxide, lecture bottle	LB1005						1				
Cobalt chloride hexahydrate	C0225		3 g								
Cobalt(ous) chloride solution, 0.1 M	C0242										20 mL
Copper foil —or—	C0137				small piece						
Copper wire, 18 gauge	C0148										
Ethyl alcohol, 95%	E0009		500 mL								
Ferric nitrate nonahydrate	F0008	4 g		21 g						5 g	
Ferrous sulfate	F0016							2 g			
Hydrochloric acid (conc), 12 M	H0031		10 mL								10 mL
Hydrochloric acid solution, 0.1 M	H0014	30 mL									
Nitric acid, 1 M	N0050			1 L							
Nitric acid (conc), 15.8 M	N0043				20 mL						
Potassium thiocyanate	P0225	1 g		0.1 g						1.1 g	
Silver nitrate solution, 0.1 M	S0305										3 mL
Sodium hydroxide pellets	S0074	1 g									
Sodium phosphate (monobasic) monohydrate	S0097	2 g								1 g	
Sulfuric acid solution, 3 M	S0417							10 mL			
Thionin	T0077							0.1 g			
Glassware											
Beakers											
50-mL	GP1005	15	15	90*			1	1			
100-mL	GP1010						1				
250-mL	GP1020	10	10		8			2			
400-mL	GP1025	10									2
1-L	GP1040					2	2		1		
Graduated cylinders											
10-mL	GP2005								1		
25-mL	GP2010						30				
50-mL	GP2015						30			1	

*Large test tubes may also be used.

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Glassware, continued											
Pipet, serological-type, 10 mL	GP7059			45							
Petri dish	GP3019								1		
Test tubes											
13 × 100 mm	GP6063	90	90								
19 × 150 mm	GP6068										5
Stirring rods	GP5075	15	15	15				1			
General Equipment and Miscellaneous											
Colorimeter sensors	TC1504			15							
Computer interface system (LabPro)	TC1500			15							
Cuvettes with lids	AP9149			90							
Forceps	AP8328				15						
Gloves, Zetex,™ for high temperature	AP3240						1				
Hot plate	AP4674	5	5		4		1				1
Labeling pens	AP1297	15	15	15		15					1
LoggerPro Software	TC1421			1							
Medicine cups	AP5442						1				
pH Test paper, narrow-range, 3.0–5.5	AP325						6				
Pipets, Beral-type, graduated	AP1721	120	60				1		2	3	
Pipet, jumbo	AP8850				30						
Pipet filler	AP1887			15							
Spatula	AP8338		15						2		
Straws	AP6025						15				
Syringe, 30-mL	AP1732						1				
Syringe tip cap	AP8958						1				
Test tube rack	AP1319	15	15								1
Thermometer, digital	AP6049		10	15							
Tissues or lens paper, lint-free	AP1141			✓							
Tongs	AP8266				15						
Wash bottle	AP1668	15	15	15							
Water, distilled or deionized	W0007, W0001	✓	✓	✓				✓			✓