

Included Items**Lesson**

3, 4	Citric acid	1	btl	
3, 4	1000 mL beakers	2		
3, 4	Disposable plastic pipette	128		
3, 4, 5, 7, 8	Universal pH strips	250		
3, 4, 7, 8	Disposable gloves	200		
3, 5	Bromothymol blue indicator	2	100 mL	
4	Well plate	8		
4	Potassium hydroxide, KOH	1	btl of 30 g	
4	3M Hydrochloric acid, HCl	2	60 mL	
4	3M Sulfuric acid, H ₂ SO ₄	1	100 mL	
4	3M Acetic acid, HC ₂ H ₃ O ₂	1	100 mL	
4	3M Ammonium hydroxide, NH ₄ OH	1	100 mL	
4, 7, 8, 11	Weighing paper	1	pkg of 500	
4, 8	Sodium hydroxide, NaOH	3	btl of 20 g	
5	Clear plastic cup, 20 oz	8		
5	Paper cup, 3 oz	8		
5	Plastic sheet covers and paper	35		substitute for whiteboard
6	4x6 sticky notes	1	pkg	
7	1M Hydrochloric acid, HCl	2	btls of 30 mL	
7	Sodium oxalate, Na ₂ C ₂ O ₄	1	btl of 25 g	
7, 8	Oxalic acid, H ₂ C ₂ O ₄	3	btl of 9 g	
10	Coquina	10	pieces	substitute for marble chips
11	Calcium chloride, CaCl ₂	2	25 g	
11	Filter paper	1	pkg of 100	
11	Sodium carbonate, Na ₂ CO ₃	1	50 g	

Teacher notes: weigh a small piece of coquina in place of the marble chips and drop it into the vinegar. A small chip of a piece of coquina can be removed to allow it to fit into the test tube.

Sold Separately		Suggested Quantities	Available at wardsci.com Part #
Lesson			
8, 9	Calculator	35	470349-970
5, 7, 8, 11	Digital scale	4	470354-570

Locally Sourced Items		Suggested Quantities	Available at wardsci.com Part #
Lesson			
3	Carbonated water		N/A
3, 4	Table salt, NaCl	737 g	470324-147
3, 4, 5, 7, 8, 11	Distilled water	5 gal	470200-788
5	Baking soda	1 lb.	470174-140
5	Aluminum foil	2	470174-014
5	Dry erase marker, fine pt	35	470104-998
5, 6, 11	Invisible tape	1	470093-354
5, 10, 11	Vinegar	2 of 16 oz	470174-478
8	Paper clips	2 boxes	470143-696
8	Plastic bag (sealable)	2 bags	470226-588
8	Staples	1 pkg	470226-923
11	Ice	1 pkg 2 trays	470232-092

Std. Lab/Class Equipment Lesson		Suggested Quantities	Available at wardsci.com Part #
1,2,3,4,6,7,10,11,12,13	Chart paper	1 pad of 50	470149-864
1,2,3,4,6,7,10,11,12,13	Chart paper markers	5 pks of 8	470338-508
1, 2, 3, 5, 6, 7, 12	Permanent markers	35	470354-574
1, 2, 3, 5, 6, 7, 12, 14	3x3 sticky notes (need 2 colors)	11 pks of 90	470173-822
3, 4, 7, 8, 10, 11	250 mL beakers	36	470206-318
3, 4, 5, 7, 8, 10,11	Safety goggles	35	470016-082
3, 4, 8, 7, 11	Chemical apron	35	470148-674
3, 5	Loose-leaf paper	70	N/A
4	Scissors	8	470016-334
4	500 mL beaker	16	470178-274
4, 5	Plain white paper	11 sheets	470337-341
4, 7, 8, 11	Glass stir rod	1 pkg 12	470235-782
5	100 mL graduated cylinder	8	470174-198
7, 8, 11	Scoopula	1 pk of 20	470125-222
7, 11	500 mL flask	5	470353-974
11	Funnel	8	470149-588
11	Hot plate	2	470236-270