



RECOMMENDED MINIMUM CORE INVENTORY TO SUPPORT STANDARDS-BASED INSTRUCTION

HIGH SCHOOL GRADES SCIENCES

High School Chemistry

Quantity per lab group	Quantity per classroom/ adjacent work area	Description
SAFETY EQUIPMENT		
	2	Acid storage cabinet (one reserved exclusively for nitric acid)
	1	Chemical spill kit
	1	Chemical storage reference book
	5	Chemical waste containers (Categories: corrosives, flammables, oxidizers, air/water reactive, toxic)
	1	Emergency shower
	1	Eye wash station
	1	Fire blanket
	1	Fire extinguisher
	1	First aid kit
	1	Flammables cabinet
	1	Fume hood
1/student		Goggles
	1	Goggles sanitizer (holds 36 pairs of goggles)
1/student		Lab aprons
COMPUTER ASSISTED LEARNING		
	1	Television or digital projector
	1	VGA Adapters for various digital devices
EQUIPMENT/SUPPLIES		
	1 box	Aluminum foil
	100	Assorted rubber stoppers
	1	Balance, analytical (0.001g precision)
	5	Balance, electronic or manual (0.01g precision)
	1 pkg of 50	Balloons, latex
4		Beakers, 50 mL
4		Beakers, 100 mL
2		Beakers, 250 mL



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Quantity per lab group	Quantity per classroom/ adjacent work area	Description
2		Beakers, 400 or 600 mL
1		Beakers, 1000 mL
1		Beaker tongs
	1	Bell jar
	4	Bottle, carboy round, LDPE 10 L
	4	Bottle, carboy round, LDPE 4 L
	10	Bottle, narrow mouth, 1000 mL
	20	Bottle, narrow mouth, 125 mL
	20	Bottle, narrow mouth, 250 mL
	20	Bottle, narrow mouth, 500 mL
	10	Bottle, wide mouth, 125 mL
	10	Bottle, wide mouth, 250 mL
	2	Broken glass container
	1/sink	Brushes, bottle/beaker
	1/sink	Brushes, burette
	2/sink	Brushes, test tube
1		Buchner funnel
1		Bunsen burner ignitors, strikers, lighters, or box of matches
2		Bunsen burner
2		Burette, 0.1 mL graduations
1		Burette clamps, double
	1	Cart, lab
2		Centrifuge tube to fit centrifuge
	3	Centrifuge, 8-place (shared with biology class)
	1	Cork borer set
	4	Counter brush
1		Crucible tongs
1		Crucibles
	2	Deflagrating spoons
1		Demonstration molecular model set
	1	Demonstration tray
	1	Desiccant, Dreerite
	1	Desiccator plate
	1	Desiccator, Scheibler
1/pair of students		Diffraction gratings / spectrosopes
	100	Dropping (dispensing) bottles, 30 mL (for permanent storage of solutions)

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Quantity per lab group	Quantity per classroom/ adjacent work area	Description
	1	Drying oven
	1	Drying rack, vinyl coated
	1	Dust pan
	1	Element display set
2		Evaporating dish, porcelain
	1 box	Filter paper for Buchner funnel
	5 pkg of 100	Filter paper, 90 mm
1		Fisher (high temperature) burners
	2	Flasks, Erlenmeyer, 1 L
4		Flasks, Erlenmeyer, 125 mL or 250 mL
	2	Flasks, Erlenmeyer, 2 L
1		Flask, filtering, 500 mL
1		Flask, volumetric, 100 mL
2		Flint lighter
2		Forceps
2		Funnels, plastic, 2.75" diameter
1		Funnels, plastic, 5" diameter
1		Gas measuring tube, glass graduated, 50 mL
	1	Glass tubing (i.e., Pyrex brand glass tubing assortment - 25 lb. case)
	2 boxes	Vinyl or latex-free gloves
2		Graduated cylinders, 10 mL
2		Graduated cylinders, 50 mL
2		Graduated cylinders, 100 mL
	2	Graduated cylinders, 500 mL or 1000 mL
	1	Hammer
	1	Hot mitts
1		Hot plate
1		Inoculating loop, Nichrome (for flame tests)
		Labels
	1	Magnetic stirrer bar set
	1	Magnetic stirrer plate
1		Magnifying glass
1		Medicine dropper
	2	Metal electrode set
1		Meter, conductivity
1		Meter, conductivity, digital, hand-held

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Quantity per lab group	Quantity per classroom/ adjacent work area	Description
2		Microplates, large, 24-well
4		Molecular model kits (three dimensional)
	2	Mortar, porcelain
1/sink		Paper towel dispenser
	1	Parafilm, 250 ft.
	1	Periodic table wall chart
	2	Pestle, porcelain
	1	pH meters / probes
1		pH meter, digital, hand-held
	500 pkg	Pipette, Beral-type, thin-stem
1		Pipette, graduated, 10 mL
	500 pkg	Pipettes, graduated, transfer, disposable, non-sterile, 5mL
1		Pipette pump
1		Pneumatic trough
2		Ring stands (or other lab counter top support)
2		Rings with clamps
2		Rubber policeman
1		Rulers
2		Single burette clamp
2		Spatulas, scoops, or plastic spatula/spoons
	1	Spectrophotometer and accessories (<i>cuvets/test tubes, and optical wipes</i>)(at least 3/class for AP)
1		Spectroscope – hand held
	1	Spectrum tube power supply
	1	Spectrum tube, hydrogen
	1	Spectrum tubes (other gases for comparison)
	5	Sponge, cellulose
2		Spot plates
	1	Still, water
	100	Stirring rods (plan for breakage replacement)
	Set of 100	Stoppers/corks (sacked, assorted sizes, with and without holes bored)
1		Stop watch
1		Storage boxes for student lab equipment
	100	Styrofoam cups
	2	Syringe without needle, 60 mL
	1	Television or digital projector



Quantity per lab group	Quantity per classroom/ adjacent work area	Description
2		Test tube clamps
2		Test tube holders
2		Test tube racks (fitted for purchased test tubes)
12		Test tubes (standard size, about 16 mm x 150 mm; plan for breakage replacement)
2		Thermometers (-20° to 110° C)
1		Triangles, iron wire
	150 ft.	Tubing, rubber, black, 1/4" diameter (for Bunsen burners)
	1	Utility carrier tray
	1 tube	Vacuum grease
	1	Vacuum pump
	1	Vacuum tube, 50 ft.
	1	VGA Adapters for various digital devices
	2	Voltaic cell with porous cup
	2	Volumetric flasks, 500 mL
	2	Volumetric flasks, 1000 mL or 2000 mL
1/sink		Washing bottles, plastic
	48	Watch glass, 90 mm
	500	Weigh dishes
2		Wire gauze
	1 pkg. of 500	Wood splints
	1	Wrench, adjustable
ESSENTIAL CHEMICALS		
	2.5 L	Acetic acid, glacial, ACS grade (17.4 M)
	500 mL	Acetone, laboratory, solution
	100 g	Aluminum chloride
	100 g	Aluminum filings
	100 g	Aluminum nitrate
	500 g	Ammonium chloride, laboratory, granular
	1,500 mL	Ammonium hydroxide, laboratory, solution 6.0 M
	100 g	ammonium metavanadate, reagent powder
	500 g	Boiling chips 500 g
	1	Bromine water kit
	1 L	Buffer solution pH 10
	1 L	Buffer solution pH 4
	1,500 g	Calcium chloride anhydrous, laboratory, lumps



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Quantity per lab group	Quantity per classroom/ adjacent work area	Description
	500 g	Calcium metal
	500 g	Calcium nitrate 4-hydrate, laboratory, granular
	5 pkg.	Candles
	500 g	Charcoal, laboratory, activated
	300 g	Chromium (III) nitrate 9-hydrate, reagent, crystal
	500 g	Citric acid
	100 g	Copper (II) carbonate
	100 g	Copper (II) chloride anhydrous, laboratory, powder
	500 g	Copper (II) chloride anhydrous, laboratory, powder
	100 g	Copper (II) nitrate 2.5 hydrate, reagent, crystal
	500 g	Copper sulfate
	100 g	Copper, metal
	8 L	Ethyl alcohol, reagent, solution
	100 g	Ferric nitrate
	9	Food coloring set with 4 colors
	5 g	Germanium, pieces, irregular 99.999%
	3	Grease pencils black 12/box
	2.5 L	Hydrochloric acid sol. conc. (12 m)
	1 L	Hydrogen peroxide (10% concentration)
	100 g	Iron (II) ammonium sulfate
	100 g	Iron (II) chloride
	100 g	Iron (III) chloride
	100 g	Iron filings
	500 g	Iron (II) sulfate 7-hydrate, laboratory, granular
	100g	Iron (III) nitrate
	500 g	Lithium sulfate acs
	100 g	Lycopodium, laboratory, powder
	1 reel	Magnesium ribbon
	2.5 kg	Magnesium sulfate 7-hydrate, laboratory, crystal
	300 g	Manganese (IV) dioxide, reagent, powder
	500 mL	Manganese nitrate, reagent, solution, 50%
	4 L	Methanol – lab grade
	1 L	Mineral oil
	100 g	Nickel nitrate 6-hydrate, laboratory, crystal
	500 mL	Nitric acid, reagent acs, solution, (~15.8 m)

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Quantity per lab group	Quantity per classroom/ adjacent work area	Description
	500 g	Oxalic acid dihydrate, laboratory, crystal
	5 g	Phenol red
	25 g	Phenolphthalein, laboratory, powder
	1,500 mL	Phenolphthalein, laboratory, solution, 1.0% (alcoholic)
	500 g	Potassium bromide, reagent, crystal
	1 L	Potassium hydroxide, laboratory, solution, 2.0 M
	500 g	Potassium iodate, laboratory, powder
	500 g	Potassium nitrite, reagent, crystal
	500 g	Potassium permanganate
	100g	Potassium thiocyanate
	500 g	Potassium thiocyanate reagent grade – crystal
	1 kg	Sand
	100 g	Silver nitrate
	100 g	Sodium (metal)
	100 g	Sodium acetate
	2.5 kg	Sodium bicarbonate, laboratory, powder
	100 g	Sodium bromide, reagent, crystal
	2.5 kg	Sodium carbonate anhydrous, laboratory, granular
	1,500 g	Sodium chloride granular – reagent grade
	500 g	Sodium citrate
	100 g	Sodium fluoride, reagent, powder
	1,500 g	Sodium hydroxide, laboratory, pellet
	100 lb	Sodium metabisulfate
	500 g	Sodium phosphate tribasic
	100 g	Sodium phosphate (dibasic)
	100 g	Sodium phosphate (monobasic)
	500 g	Sodium sulfate
	500 g	Sodium thiosulfate
	500 g	Starch, soluble powder
	500 g	Strontium chloride 6-hydrate, laboratory, granular
	500 g	Sucrose
	500 g	Sulfur
	500 mL	Sulfuric acid, reagent ACS, solution, (~18 M)
	500 mL	Universal indicator
	100 g	Zinc
	500 g	Zinc nitrate 6-hydrate, laboratory, crystalline flakes