

**RECOMMENDED MINIMUM CORE INVENTORY
TO SUPPORT STANDARDS-BASED INSTRUCTION IN
PHYSICS**

developed by California Science Teachers Association

Qty per lab group	Qty per classroom/adjacent work area	Description	Comments
SAFETY EQUIPMENT			
	classroom set	aprons	
	1	eye wash station	
	1	fire blanket	
	1	fire extinguisher	
	1	first aid kit	
	1	goggles sanitizer (holds 36 pairs of goggles)	
	1/person	safety goggles	
	1	television or digital projector	
	1	VCR	
EQUIPMENT/SUPPLIES			
Mechanics/Force Equipment			
1		accelerometer	<input checked="" type="checkbox"/> alternate computer-based probeware/sensors may be used
	1	air track and accessories (air source, air table, track w/ spark timing system)	
	1	Archimedes Principle kit	
1		balance (0.1g accuracy)	
	1	bicycle wheel gyroscope	
1		Boyle's Law apparatus	
1		cart, halls (4 aluminum low friction wheels, total length 6")	
	40	C clamps	
1		collision in two dimension kit (track, balls-2steel,1 glass, 1 wood)	
	40	drawing compasses	
	1	electronic timer / photogates	<input checked="" type="checkbox"/> alternate computer-based probeware/sensors may be used
	1	force table	
1		inclined plane set	
1		mass set (10g to 1000g)	
2		meter sticks	
1		momentum/collision apparatus	
1		motion detector	
	1	Newton's cradle "collision balls"	
1		pendulum set	
2		plumb bobs	
	40	protractors	
2		pulley apparatus	
	20	ring stand clamps	
	20	ring stands (or other lab counter top support)	

Recommendations based on 4-student lab groups
Total # of lab groups will be based on class size

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	40	rulers, 12-18" (with metric markings)	
1		spring scales (1 kg)	
1		spring scales (500 g)	
1		spring scales (250 g)	<input checked="" type="checkbox"/> alternate computer-based probeware/sensors may be used
2		stop watches	<input checked="" type="checkbox"/> alternate computer-based probeware/sensors may be used
1		stroboscope (hand and/or electronic)	
1		weight set, hooked 7 weights 10g--1Kg in plastic holding block	
Mechanics/Thermodynamics Equipment			
	1	ball and ring apparatus	
1		calorimeter	
1		compound bar	
	1	convection box	
1		convection of liquids tube	
1		heat transfer kit	
1		metals set for density and specific heat labs	
Waves/Optics Equipment			
2		diffraction gratings and/or spectroscopes	
	3	(pkg/12)	
1		laser, small pointer	
1		lens set (concave, convex, biconcave, biconvex, prisms)	
1		mirrors, concave	
1		mirrors, convex	
2		mirrors, flat	
	1	radiometer, Crookes	
	1	resonance tube set (open-ended tubes)	
1		resonance tubes (narrow plastic tubes work)	
1		ripple tank and accessories (motor-driven rippler bar, vertical light support, shaped wooden barrier blocks, extra glass plate, parabolic reflector, white plastic viewing screen, high power light source, 2 adjustable hand strobe discs)	
	1	rotating platform	
	1	spectrum tubes, assorted gases set	
	1	spectrum tube power supply	
	1	strobe light	
2		super slinkiest	

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2		thermometers (-20 to 110 degrees C)	<input checked="" type="checkbox"/> alternate computer-based probeware/sensors may be used
1		tuning fork set (8 piece set w/ variety of frequencies)	<input checked="" type="checkbox"/> alternate computer-based probeware/sensors may be used
	1	tuning fork set, resonant	
	1	video camera	
Electricity and Magnetism Equipment			
1		ammeter, dual range 0-1amp and 0-5amp for student use	
	2	animal fur and rods for electrostatics demonstrations	
2		bar magnets	
2		circuit equipment (circuit board, switches, LEDs, capacitors, resistors, transistors, miniature lamps, lamp sockets, buzzers, rheostats, solenoids, batteries, battery holders, wires (black & red hook-up wire), alligator clips, insulators, potentiometers)	
1		compass, magnetic	
1		Coulomb's Law apparatus	
	1	electroscope	
2		electrostatic lab	
2 ea.		electrodes (copper and zinc)	
	1	Faraday's Electromagnetic Induction apparatus	
	1	Genecom (hand-held electric generator)	
4		miniature compasses for B field observations	
1		multimeters, digital (or ammeters/voltmeters/galvanometers)	<input checked="" type="checkbox"/> alternate computer-based probeware/sensors may be used
	1	Van de Graaf generator	
	1	Wimshurst generator	
1		power supplies, variable output	
2		resistors	
	1	Van de Graaf or Wimshurst generator	
2		wire and connector set	
Miscellaneous Equipment			
	1	barometer, aneroid for classroom, inches, centimeters, & millibars	
2		clamp, right angle rod clamps, 9/16" one end 1/2" other, Cast iron 1/4" thumbscrew	
1		clamp, adjustable as to angle, fits rods up to 5/8", aluminum	
	1 roll	vacuum hose, ID 3/8" (pkg/10 ft)	

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	1	vacuum pump plate, acrylic fits 9" diameter, hose ID 3/8"	
	1	vacuum pump, 85 liters/min, fits hose ID 3/8"	
FACILITIES			
A source of water and access to waste disposal (i.e., lab stations/sinks) are recommended for classrooms in which physics is taught.			