



KIT CONTENTS LIST FOR USE WITH: **BJU Press®**

Physics (Grade 12)

3rd Edition

Home Science Tools is not affiliated with the above curriculum publisher.

<u>Text Reference</u>	<u>Item Description</u>	<u>Item Quantity</u>	<u>Notes</u>
All Labs	BJU Press Physics 12 Lab Manual <i>(BJ-SCI12-D)</i>	0	Purchase Student Lab Manual separately.
All Labs	BJU Press Physics 12 Teacher's Edition <i>(BJ-SCI12-C)</i>	0	Purchase Teacher's Edition Textbook separately.
All Labs	BJU Press Physics 12 Teacher's Lab Manual <i>(BJ-SCI12-E)</i>	0	Purchase Teacher's Lab Manual separately.
All Labs	BJU Press Physics 12 Textbook <i>(BJ-SCI12-B)</i>	0	Purchase Student Textbook separately.
Several Labs	Digital Scale, 2000 g x 0.1 g <i>(BS-DB2000)</i>	0	We recommend this digital scale as a faster, easier-to-use, and more economical alternative to a traditional mechanical balance. It will work for all labs in this curriculum.
Several Labs	Meterstick, 100 cm <i>(ME-METER2)</i>	1	Metersticks not included in kits shipped outside of the US.
Several Labs	Protractor, 6" semi-circle <i>(ME-PROTRSM)</i>	1	
Several Labs	Ruler, 30 cm <i>(ME-RULER)</i>	1	
Several Labs	String, heavy cord, 25' <i>(MC-STRING)</i>	1	
Several Labs	Weight Set, Hooked 10 to 1000g <i>(BS-WTHOOK1)</i>	1	
2	Vernier Caliper <i>(ME-CALIPER)</i>	1	Optional. Use to obtain more accurate measurements of objects in lab 2.
2,13,15,17	Graduated Cylinder, polypropylene, 100 ml <i>(CE-CYPP100)</i>	1	
2,17	Density Cylinders Set of 4 <i>(MC-DENSCYL)</i>	1	
3-1,8,11	Recording Spark Timer <i>(MC-TIMERSP)</i>	1	
5,7	Collision in 2 Dimensions Kit <i>(MC-COLL2D)</i>	0	Optional to purchase separately to complete labs.
5,7	Washers, 1", 10 pack <i>(PT-WASHERS)</i>	1	Use with string to make a plum bob for lab 5 and as weights in lab 7.
5,7,12-1	Digital Stop Watch, 2" <i>(ME-STOPWAT)</i>	1	
5,8	Wood Ramp, economy <i>(MC-RAMP1)</i>	0	Purchase separately. We recommend this low cost wooden board 6"x40".
5,8,12-2	C-clamp, 2" <i>(GS-CLAMP)</i>	2	
6,11	Paper Clips, small, 100/box <i>(GS-PCLIPSM)</i>	1	
6,8	Pulley with Table Clamp <i>(MC-PULLY3)</i>	3	Use to make a force table.
7	Rubber Stopper, #6.5, 2-hole <i>(CE-STOP06B)</i>	1	
7,10	Spring scale, 1000 g/10 Newton <i>(BS-SCALE3)</i>	1	
7,12-2	Glass Tube, 5 mm, 6" long <i>(CE-TUBEG6)</i>	1	

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8	Hall's Cart <i>(MC-HALLCAR)</i>	1	
8,9,10,12-2,18,22-1	Support Stand, 4" x 6" base, 18" rod <i>(CE-STAND2)</i>	1	
8,9,10,17,18	Rod, steel, 0.25" x 10" <i>(GS-RODSTL)</i>	1	
8,9,10,18	Right Angle Clamp <i>(CE-RCLAMP)</i>	1	
9	Hooke's Law spring, 10 cm <i>(MC-SPRHOOK)</i>	1	
10	Pulley, Double Tandem, 48mm <i>(MC-PULLY2)</i>	2	
11	Dynamic carts, set of 2 <i>(MC-DYNCART)</i>	0	Optional. Standard roller skates or model railroad cars may be substituted.
12-2	Percussion or Reflex Hammer <i>(MC-PERCHAM)</i>	0	Optional. Not recommended. You can tap the tuning fork on a wood block.
12-2	Sound Measurement Kit <i>(MC-SOUNKIT)</i>	1	Includes all the items to make the resonance apparatus and 512 cps tuning fork.
12-2, 14-2	Thermometer, Celsius, 12" <i>(ME-THER30B)</i>	1	
12-2,22-1	Burette Clamp <i>(CE-CLAMP)</i>	1	
13	Oleic Acid, 30 ml <i>(CH-OLEIC)</i>	1	
13	Pipet (medicine dropper) <i>(CE-DROPPER)</i>	1	
13	Talc, 30 g <i>(CH-TALC)</i>	1	Use instead of lycopodium powder.
13, 15, 17	Beaker, glass, 50 ml <i>(CE-BE10050)</i>	1	
14-1	Beaker, glass, 250 ml <i>(CE-BE10250)</i>	0	We recommend omitting this lab due to the linear expansion apparatus cost.
14-2	Alcohol Lamp Burner, Wickless <i>(CE-LAMP)</i>	0	Use a stove burner instead.
14-2	Alcohol Lamp Stand <i>(CE-STAND1)</i>	0	Use a stove burner instead.
14-2	Beaker, glass, 1000 ml <i>(CE-BE11000)</i>	0	Use a small saucepan and another container instead.
14-2	Ethyl Alcohol, 95%, 30 ml <i>(UN-ETHYALC)</i>	0	Optional. Order only if you don't want to purchase denatured alcohol locally for the alcohol lamp.
14-2, 14-3	Boyle's Law Apparatus Kit <i>(MC-BOYLES)</i>	1	
15	Calorimeter, Double Wall <i>(CE-CALORIM)</i>	0	Not needed with styrofoam cups.
15	Styrofoam Cups, 8 oz, with lids 5 pack <i>(CE-CUPSTYR)</i>	0	Recommended to use Styrofoam cups in place of a calorimeter.
17	Overflow can <i>(MC-OVERFLW)</i>	1	
17	Wood block, 1.5 x 1.5 x 0.75" <i>(GS-WOODMD)</i>	0	Use any appropriate sized wood block.
18	Electroscope, Pith Ball Type <i>(EL-ELSCOPE)</i>	1	Includes pith balls.
18	Friction pad, fur, about 4x5" <i>(GS-PADFUR)</i>	1	
18	Friction pad, silk, 6x6" <i>(GS-PADSILK)</i>	1	
18	Friction rod, rubber <i>(GS-RODRUB)</i>	1	
18	Stirring Rod, glass, 10" <i>(CE-STIR10)</i>	1	
20-1,20-2,20-3,22-2	Battery, 9-volt, alkaline <i>(EL-BALK-9V)</i>	1	
20-1,20-2,20-3,22-1,22-2,26	Digital Multimeter <i>(EL-DIGMULT)</i>	1	Use in lab 22-1 as the ammeter. Additional digital multimeter can be used in place of a voltmeter.

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21	Bar Magnets, 3" Alnico I, 2 pack (MG-BAR3AL)	1	
21	Compass, magnetic, 1.5" (GS-COMPASS)	2	
21, 22-1	Copper Wire, insulated, #24, 15' (EL-WIRE24H)	1	Use to make the Ampere's rule apparatus.
21,22-1	Battery, 6 volt (EL-BATT6)	1	
21,26	Alligator Clip Leads, 2 pack (EL-ALCLIP2)	2	
22-1	Potentiometer, 1000 ohm (EL-POT100R)	1	Use instead of the lab rheostat.
22-1	Small DC Motor, 0.5-6 volt (EL-MOTOR)	1	Tape to the support rod instead of buying another clamp.
22-1	Spool, wooden , 1" x 3/4" (PT-SPOOL)	1	
22-1	Switch, knife type, SPST (EL-SWITCH2)	1	
23-1,24-1	Mirror, glass plane, 4"x 4" (OP-MIRROR3)	1	
23-1,24-1	Refraction Box, semi-circle (OP-REFRAC3)	1	
23-2	Candle, 4" white (OP-CANDLE)	1	Use any candle.
23-2	Mirror, concave, 200 mm f/l (OP-MIR4X20)	1	
23-2,24-2	Optic Bench Lens Holder, metal (OP-LENHLD)	1	
23-2,24-2	Optic Bench Object Screen (OP-SCREEN)	1	
23-2,24-2	Optic Bench Screen Holder (OP-SCRNHLD)	1	
23-2,24-2	Optic Bench Supports, pair (OP-SUPPORT)	1	
24-2	Lens, double convex, 150mm f/l (OP-LEN4X15)	1	
25	Deluxe Red Laser Pointer (OP-LASRED)	1	
26	Solar Cell, 1 volt, 400-500 ma (EL-SUNCELL)	1	

1. The products in this kit are intended for parent/teacher use to complete curriculum lab activities with students.
2. Some items are not designed for or intended primarily for children ages 12 and under.
3. Some materials and many chemicals we provide are dangerous and may be harmful if misused. With your purchase, you are assuming all responsibility for any injuries or damages resulting from the storage, use, and disposal of all materials and chemicals.
4. Some products may differ from the web image (such as clay, food coloring, etc.)
5. Some items readily available at grocery stores or not offered by Home Science Tools are not included.
6. We guarantee that you will be happy with every purchase from HST. All products are covered by our 90-day money-back guarantee.

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