Symmetry Learning

IT'S NOT JUST TEACHING SCIENCE, IT'S USING SCIENCE TO TEACH.







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	ATMOSPHERE											
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered			
Student Journal	AT-SJ							\$6.25				
Teacher Manual	AT-TM							\$34.95				
Complete Atmosphere	AT-1100T-5							\$685.00				
Discovery Center (5 groups per class)		Aquarium Ball, 4" Balloon, 16" Balloon, 5" Brick pieces Bulb pipet, 5 mL Butane lighter Cling wrap, roll Cup, 4" clear plastic Electronic scale Erlenmeyer flasks Funnel Graduated cylinder, 100 mL PMP Hand pump Hot plate Jar, 4" X 7" with lid Lime water (calcium oxide) Lime water decanter Magnetic ball Post-it notes, pkg	AT-1104 AT-1112 AT-1118 AT-1103 SB-1707 LW-0100 AT-1113 LG-0500 LW-0102 LW-0103 LW-0104 LW-0105 AT-1105 AT-1105 AT-1106 AT-1116 MG-1816 AT-1107	$ \begin{array}{c} 1\\ 2\\ 15\\ 5\\ 5\\ 1\\ 1\\ 10\\ 15\\ 15\\ 5\\ 1\\ 1\\ 5\\ 1\\ 1\\ 5\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\$	PVC Tubing, 2 ft Ruler, 6" Sandwich bags, bx of 50 Steel wool, pkg Stopper, one-holed Straw Syringe, 50mL Thermometer, 4" Tin can Toothpicks, bx Valve Vials, glass Force Balance Supplement (12" wire, 5/8" binder clip, 3/8" binder clip, 1" S hook, 11/2" S hook, dowel rod 1/2" X 16", lab stand & rod, lab stand ring) Storage tower, 3 drawer	AT-1108 EL-1333 LG-0502 EL-1349 LW-0108 LW-0109 LG-0532 AT-1114 AT-1109 AT-1110 LG-0504 AT-1111 LW-0107 EL-1350	20 5 1 1 5 5 5 5 1 1 2 5 5 2					
Atmosphere Discovery Center without Force Balance Supplements (5 groups per class)	AT-1101T-5	Same as AT-1100T-5 above without Force Balance Supplement		I				\$600.00				
Atmosphere	AT-1100T-55							\$17.50				
Additional Classroom Supplement (5 groups per class)		Balloon, 16" Balloon, 5" Bulb pipet, 5 mL Cup, 4" clear plastic	AT-1118 AT-1103 LW-0100 LG-0500	15 5 5 10	Post-it notes, pkg Steel wool, pkg Straw Tin can	AT-1107 EL-1349 LG-0532 AT-1110	1 1 5 1					
Complete	AT-1100T-10							\$1,050.00				
Atmosphere Discovery Center (10 groups per class)		Aquariums Ball, 4" Balloons, 16" Balloons, 5" Brick pieces Bulb pipet, 5 mL Butane lighter Cling wrap, roll Cup, 4" clear plastic Electronic scale Erlenmeyer flasks Funnel Graduated cylinder, 100 mL PMP Hand pump Hot plate Jar, 4" X 7" with lid Lime water (calcium oxide) Lime water decanter Magnetic ball Post-it notes, pkg	AT-1104 AT-1112 AT-1118 AT-1103 SB-1707 LW-0100 AT-1113 LG-0500 LW-0102 LW-0102 LW-0103 LW-0104 LW-0104 LW-0105 AT-1105 AT-1106 LW-0106 AT1115 AT-1116 MG-1816 AT-1107	1 4 30 10 10 10 1 20 1 30 30 10 1 1 100 1 100 1	PVC Tubing, 2' Ruler, 6" Sandwich bags, bx of 50 Steel wool, pkg Stoppers, one-holed Stoppers, two-holed Straw Syringe, 50mL Thermometer, 4" Tin can Toothpicks, bx Valves Vials, glass Force Balance Supplement (12" wire, 5/8" binder clip, 3/8" binder clip, 1" S hook, 11/2" S hook, 11/2" S hook, 12" S hook, 10 stand & rod, lab stand ring) Storage towers, 3 drawer	AT-1108 EL-1333 LG-0502 EL-1349 LW-0108 LW-0109 LG-0532 AT-1114 AT-1109 AT-1110 LG-0504 AT-1111 LW-0107 EL-1350	40 10 1 1 10 20 10 10 10 10 10 10 10 3					
Atmosphere Discovery Center without Force Balance Supplements (10 groups per class)	AT-1101T-10	Same as AT-1100T-10 above without Force Balance Supplements						\$880.00				
Atmosphere Additional	AT-1100T-105							\$22.50				
Classroom Supplement (10 groups per class)		Balloon, 16" Balloon, 5" Bulb pipet, 5 mL Cup, 4" clear plastic	AT-1118 AT-1103 LW-0100 LG-0500	30 10 10 20	Post-it notes, pkg Steel wool, pkg Straw Tin can	AT-1107 EL-1349 LG-0532 AT-1110	1 1 10 1					



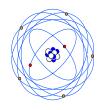
The Atmosphere: Level 6-9. Discovering the properties of air is treated as a problem in learning about the background of a very familiar system. Students relate many of their earlier experiences with floating and sinking, density, heat, chemical analysis, properties of force, energy, etc., as they discover and prove that air has weight, takes up space, and exerts pressure. They will construct barometers to measure air pressure and model the behavior of air using Kinesthetic Exercise. They discover that air has chemical properties as well as physical properties by experimenting with oxygen, water vapor, and carbon dioxide.

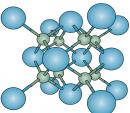


		ATC	OMS ANI) eli	EMENTS				
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered
Student Journal	AE-SJ							\$10.50	
Teacher Manual	AE-TM							\$39.95	
Complete Atoms & Elements Discovery Center (5 groups per class)	AE-1200T-5 **	Alcohol lamp & stand Aluminum dish Aluminum foil, 25 ft roll Beaker, 250 mL glass	AE-1210 AE-1211 LG-0507 LW-0112	5 20 1 5	Lab stand, base & rod Lab stand clamp Laboratory scoop Magnesium turnings	LW-0110 LW-0119 AE-1212 AE-1204	5 5 5 1	\$995.00	
		Bleach, 32 oz Bulb pipet, 5 mL China marker Clay, blue Cobalt chloride, 100 g Cork, size 7 (for 30 mL tube) Corn oil, 32 oz Craft stick Dishwashing detergent Electronic scale Filter paper, pkg Flour Food coloring, pkg of 4 Forks, plastic Funnel Graduated cylinder, 10 mL glass Graduated cylinder, 100 mL PMP Graduated cylinder, 50 mL PMP Hydrogen peroxide 2%, 16 oz Iron filings, 1 lb Isopropyl alcohol, 16 oz Jar, 4" X 7" with lid Klondiker Building Blocks, 84 pc Knife, plastic	LW-0112 LG-0508 LW-0100 LW-0114 GR-1417 AE-1202 LW-0115 LG-0510 LG-0510 LG-0511 LW-0102 LG-0513 LL-1010 LG-0518 LW-0104 LW-0116 LW-0105 LW-0118 LG-0515 AE-1203 LG-0516 LW-0106 LL-1031 LG-0519	$\begin{array}{c} 3 \\ 1 \\ 25 \\ 5 \\ 1 \\ 15 \\ 15 \\ 15 \\ 15 \\ $	Magnestam tarinings Magnetic ball Magnifying lens Measuring spoon set Needles Paraffin Poster, atom Poster, periodic table Ruler, 6" Salt Sodium bicarbonate Sugar packets, bx of 50 Test tube brush Test tube racks, 25 mm holes Test tube, 30 mL glass Test tube, 30 mL glass Test tube, 30 mL glass Test tube, 30 mL glass Test tube, 50 mL Thermometer, 12" immersion Velcro hook, 1/2" 1 yd strip Vials, glass Vinegar, 16 oz white Wax paper, roll Wooden splints Storage tower, 8 drawer	MG-1801 MG-1801 MG-1816 LK-0038 AE-1205 AE-1209 SP-6008 SP-6001 EL-1333 LG-0520 LG-0521 LG-0522 LG-0521 LW-0122 LW-0122 LW-0123 LW-0124 LW-0124 LW-0122 LK-0012 LK-0012 LK-0012 LK-0012 LK-0012 LK-0012 LK-0012 LK-0012 LK-0012 LK-0025 LW-0524 AE-1208 WH-1601	5505551111511155551510555201110111011		
Atoms & Elements Discovery Center without Lab Stands and Rods (5 groups per class)	AE-1201T-5	Same as AE-1200T-5 above without Lab Stands and Rods						\$970.00	
Atoms & Elements	AE-1201-55							\$38.00	
Additional Classroom Supplement (5 groups per class)		Aluminum dish Bleach, 32 oz Bulb pipet, 5 mL Corn oil, 32 oz Craft stick Hydrogen peroxide 2%, 16 oz	AE-1211 LG-0508 LW-0100 LG-0509 LG-0510 LG-0515	30 1 25 1 5 1	Velcro dot, 1/2" 1 yd strip Velcro hook, 1/2" 1 yd strip Isopropyl alcohol, 16 oz Vinegar, 16 oz white Wooden splint	LK-0012 LK-0040 LG-0516 LG-0525 AE-1208	5 5 1 1 10		

**Alcohol burners are used as the heat source. Bunsen burners or hot plates may be ordered by special request instead of the alcohol burners with a price adjustment.

Level 6-7. **Atoms and Elements** Unit 1. An Introduction to Chemistry introduces the vocabulary and concepts of atoms, elements, bonds, chemical properties, chemical changes, and physical changes. In the following two Units, The Tools of the Chemist and The Structure of Matter, the scientific thinking and experimental evidence that underly the particulate model of matter, which is the theoretical basis of modern chemistry, are introduced. These units progressively develop a portion of the fundamental view of the particulate or atomic theory of matter. The Tools of the Chemist Unit introduces the use of volume, mass, and temperature measurements as the central tools needed to explore and infer chemical properties and change. Students learn to use and apply graduated cylinders, balances, and temperature measurements to the problem of physical characterization of substances. Each experiment in this unit uses the vocabulary introduced in Unit I to teach both chemical principles and the experimental methods of scientific inquiry. The Structure of Matter Unit is an explanation of the scientific evidence that supports the atomic theory of matter. Students use the tools and methods of scientific inquiry to generate and evaluate experimental evidence that supports the theoretical arguments of the atomic theory. The systems of diffusion, surface tension, and solutions are used to test the inferred relationships (hypotheses) of the particulate model of matter.









ATOMS AND ELEMENTS (cont'd)

Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered
Complete Atoms & Elements Discovery Center	AE-1200T- 10							\$1,600.00	
(10 groups per class)	**	Alcohol lamp & stand Aluminum foil, 25 ft roll Beakers, 250 mL glass Bleach, 32 oz Bulb pipet, 5 mL China marker Clay, blue Cobalt chloride, 100 g Cork, size 7 (for 30 mL tube) Corn oil, 32 oz Craft stick Dishwashing detergent Electronic scale Filter paper, pkg Flour Food coloring, pkg of 4 Forks, plastic Funnel Graduated cylinder, 10 mL glass Graduated cylinder, 100 mL PMP Graduated cylinder, 100 mL PMP Hydrogen peroxide 2%, 16 oz Iron filings, 1 lb Isopropyl alcohol, 16 oz Jar, 4" X 7" with lid Klondiker Building Blocks, 84 pc Knife, plastic	AE-1210 AE-1211 LG-0507 LW-0112 LG-0508 LW-0100 LW-0114 GR-1417 AE-1202 LW-0115 LG-0509 LG-0510 LG-0511 LW-0102 LG-0513 LL-1010 LG-0518 LW-0104 LW-0105 LW-0105 LW-0118 LG-0515 AE-1203 LG-0516 LW-0106 LL-1031 LG-0519	10 60 1 10 2 50 10 1 1 30 2 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 30 30 10 30 2 2 2 2 10 4 10 10 1 1 1 30 2 50 10 10 1 1 30 2 50 10 10 1 1 30 2 50 10 10 1 1 30 2 50 10 10 1 1 30 2 50 10 10 1 1 30 2 50 10 10 1 1 30 2 50 10 10 1 1 30 2 50 10 10 1 1 1 30 2 50 10 10 1 1 1 1 30 2 50 10 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Lab stand, base & rod Lab stand clamp Laboratory scoop Magnesium turnings Magnet, wand Magnifying lens Measuring spoon set Needles Paraffin Poster, atom Poster, periodic table Ruler, 6" Salt Sodium bicarbonate Sodium carbonate Sodium carbonate Sodium carbonate Sugar packets, bx of 50 Test tube brush Test tube clamp Test tube, s0 mL Thermometer, 12" immersion Velcro dot, 1/2" 1 yd strip Vials, glass Vinegar, 16 oz white Wax paper, roll Wooden splints Storage towers, 8 drawer	LW-0110 LW-0119 AE-1212 AE-1204 MG-1801 MG-1816 LK-0038 AE-1205 AE-1206 AE-1209 SP-6001 EL-1333 LG-0520 LG-0521 LG-0522 LG-0527 LW-0121 LW-0122 LW-0123 LW-0124 LW-0122 LW-0124 LW-0122 LK-0040 LW-0107 LG-0525 LW-0524 AE-1208 WH-1601	10 10 10 10 10 10 10 10 10 10 11 1 1 1		
Atoms & Elements Discovery Center without Lab Stands and Rods (10 groups per class)	AE-1201T-10	Same as AE-1200T-10 above without Lab Stands and Rods						\$1,550.00	
Atoms & Elements Additional	AE-1201-105							\$75.00	
Classroom Supplement (10 groups per class)		Aluminum dish Bleach, 32 oz Bulb pipet, 5 mL Corn oil, 32 oz Craft stick Hydrogen peroxide 2%, 16 oz	AE-1211 LG-0508 LW-0100 LG-0509 LG-0510 LG-0515	60 2 50 2 10 2	Velcro dot, 1/2" 1 yd strip Velcro hook, 1/2" 1 yd strip Isopropyl alcohol, 16 oz Vinegar, 16 oz white Wooden splints	LK-0012 LK-0040 LG-0516 LG-0525 AE-1208	10 10 2 2 20		

** Alcohol burners are used as the heat source. Bunsen burners or hot plates may be ordered by special request instead of the alcohol burners with a price adjustment.

	Electric Lemon											
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered			
Student Journal	EL-SJ							\$5.25				
Teacher Manual	EL-TM							\$34.95				
Complete Electric Lemon Discovery Center (5 groups per class)	EL-1302T-5	Alligator clip cables Battery, 9V Beaker, 250 mL plastic Citric acid Clothes pin clip Copper electrode, 1/2"X2" Distilled water Dish, 6" plastic Filter paper, pkg Juicer	EL-1316 EL-1308 LW-0128 LG-0527 LG-0529 EL-1310 LG-0528 EL-1323 LG-0512 EL-1342	10 5 5 1 5 10 1 5 1 1 5	Litmus paper, blue Litmus paper, red Ruler, 6" Steel wool, pkg Stirrer, plastic Vinegar, 16 oz white Voltmeter Zinc electrode, 1/2"X2" Storage tower, 3 drawer	EL-1344 EL-1345 EL-1333 EL-1349 LG-0530 LG-0525 EL-1336 EL-1339 WH-1600	1 5 1 10 1 5 10 1 10	\$325.00				
Electric Lemon Supplement to EL-	EL-1303T-5	Knife, plastic	LG-0519	5				\$100.00				
1300T or EL-1304T (5 groups per class)		Beaker, 250 mL plastic Citric acid Clothes pin clip Copper electrode, 1/2"X2" Distilled water, 1 L Juicer Knife, plastic	LW-0128 LG-0527 LG-0529 EL-1310 LG-0528 EL-1342 LG-0519	10 1 5 5 1 1 5	Litmus paper, blue Litmus paper, red Steel wool, pkg Stirrer, plastic Vinegar, 16 oz white Zinc electrode, 1/2"X2" Storage tower, 3 drawer	EL-1344 EL-1345 EL-1349 LG-0530 LG-0525 EL-1339 WH-1600	1 1 10 1 5 1					
Complete Electric	EL-1302T-10							\$565.00				
Lemon Discovery Center (10 groups per class)		Alligator clip cables Battery, 9V Beaker, 250 mL plastic Citric Acid Clothes pin clip Copper electrode, 1/2"X2" Dish,6" plastic Distilled water Filter paper, pkg Juicer Knife, plastic	EL-1316 EL-1308 LW-0128 LG-0527 LG-0529 EL-1310 EL-1323 LG-0528 LG-0512 EL-1342 LG-0519	20 10 2 20 1 20 10 2 10 2 10 2 10	Litmus paper, blue Litmus paper, red Ruler, 6" Steel wool, pkg Stirrer, plastic Vinegar, 16 oz white Voltmeter Zinc electrode, 1/2"X2" Storage tower, 3 drawer	EL-1344 EL-1345 EL-1333 EL-1349 LG-0530 LG-0525 EL-1336 EL-1339 WH-1600	1 10 2 20 2 10 20 1					
Electric Lemon Supplement to EL-	EL-1303T-10							\$130.00				
1300T or EL-1304T (10 groups per class)		Beaker, 250 mL plastic Citric acid Clothes pin clip Copper electrode, 1/2"X2" Distilled water, 1 L Juicer Knife, plastic	LW-0128 LG-0527 LG-0529 EL-1310 LG-0528 EL-1342 LG-0519	20 1 10 10 2 2 10	Litmus paper, blue Litmus paper, red Steel wool, pkg Stirrer, plastic Vinegar, 16 oz white Zinc electrode, 1/2"X2" Storage tower, 3 drawer	EL-1344 EL-1345 EL-1349 LG-0530 LG-0525 EL-1339 WH-1600	1 1 20 2 10 1					



Level 6-7. **The Mystery of the Electric Lemon** The experiments of the two scientists Galvani and Volta are explored while investigating the question of the source of electricity. This Segment applies knowledge in electricity, chemistry, and the scientific method to investigate the claim that an electrochemical cell made from copper, zinc, and a lemon draws energy from the biology of the lemon. This guided research program uses control experiments, modeling, and hypothesis-testing along with analytical chemical tools and electrical measurements with voltmeters to prove that the energy comes from the metals and not from the "living lemon".





Electric World											
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price	Quantity Ordered		
Student Journal	EW-SJ							\$5.25			
Teacher Manual	EW-TM							\$34.95			
Complete Electric	EW-1300T-5							\$600.00			
World Discovery Center (5 groups per class)		Aluminum foil, 25' Balloons, 11" Battery, 9V Battery, D Copper electrode Current Electricity I Kit (battery holder, switch, resistor, alligator clip cables, bulb, socket, buzzer) Dish, 6" plastic Electroscope Kit (Erlenmeyer flask, stopper, 6" curved rod) Feathers, pkg Filter paper, pkg. Force Balance Supplement Glass rod	LG-0507 AT-1102 EL-1308 EL-1309 EL-1310 EL-1312K EL-1323 EL-1320K EL-1322 LG-0512 EL-1350 LW-0126	1 35 5 20 5 5 5 5 1 1 5 5	NaCl, 0.15M Quartz rock Ruler, 6" Plastic rod Shredded aluminum foil Shredded paper Static Electricity I Kit (fluorescent tube, wool, silk, fur, flannel, polyester) Steel wool pad Tennis ball Toothpicks Voltmeter Wire, 25 ft Zinc electrode, 1/2"X2" Storage tower, 8 drawer	LG-0526 SQR-1700 EL-1333 LW-0127 EL-1324 EL-1325 EL-1326K EL-1334 EL-1335 LG-0504 EL-1337 EL-1337 EL-1339 WH-1601	1 10 5 5 1 1 5 1 5 1 5 1 5 1 5 1 5 1				
Electric World Discovery Center without Force Balance Supplement (5 groups per class)	EW-1301T-5	Same as EW-1300T-5 above without Force Balance Supplements				1		\$515.00			
Complete Electric World Discovery Center	EW-1300T- 10							\$1,125.00			
(10 groups per class)		Aluminum foil, 25' Balloons, 11" Battery, 9V Battery, D Copper electrode, 1/2"X2" Current Electricity I Kit (battery holder, switch, resistor, alligator clip, bulb, socket, buzzer) Dish, 6" plastic Electroscope Kit (Erlenmeyer flask, stopper, 6" curved rod) Feathers, pkg Filter paper, pkg Force Balance Supplement Glass rod	LG-0507 AT-1102 EL-1308 EL-1309 EL-1310 EL-1312K EL-1322 EL-1320K EL-1322 LG-0512 EL-1350 LW-0126	2 70 10 40 10 10 10 10 10 10	NaCl, 0.15M Quartz rock Ruler, 6" Plastic rod Shredded aluminum foil Shredded paper Static Electricity I Kit (fluorescent tube, wool, silk, fur, flannel, polyester) Steel wool pad Tennis ball Toothpicks Voltmeter Wire, 25 ft Zinc electrode, 1/2"X2" Storage tower, 8 drawer	LG-0526 SQR-1700 EL-1333 LW-0127 EL-1324 EL-1325 EL-1326K EL-1335 LG-0504 EL-1337 EL-1339 WH-1601	22 0 10 10 1 1 1 10 2 10 1 10 1 10 1				
Electric World Discovery Center without Force Balance Supplement (10 groups per class)	EW-1301T- 10	Same as EW-1300T-10 above without Force Balance Supplements						\$955.00			



Level 4-5. **The Electric World** Students discover and measure the behavior of the electric charge and force using static electricity to light fluorescent bulbs and to attract wood and metal. A sensitive force balance of their own making is also built. They discover that like charges repel and unlike charges attract using rods made from different materials. They build an electroscope to measure the electric force; they explore how materials like quartz and metals can be used to make batteries and sparks. These explorations conclude with discovering how simple circuits can power bulbs and buzzers.



	Force Balance Supplement										
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered		
Force Balance	EL-1350-5							\$85.00			
Supplement (5 groups per class)		Force Balance Kit (2 12" wire, 3 5/8" binder clip, 3 3/8" binder clip, 2 1" S hook, 3 1 1/2" S hook)	EL-1343K	5	Dowel rod 1/2" X 16" Lab stand base & rod Lab stand ring	EL-1307 LW-0110 LW-0111	5 5 5				
Force Balance	EW-1350-10							\$170.00			
Supplement (10 groups per class)		Force Balance Kit (2 12" wire, 3 5/8" binder clip, 3 3/8" binder clip, 2 1" 5 hook, 3 1 1/2" 5 hook)	EL-1343K	10	Dowel rod 1/2" X 16" Lab stand base & rod Lab stand ring	EL-1307 LW-0110 LW-0111	10 10 10				



Level 5-7. **The World of Gravity** The force of gravity on matter is explored by experimenting with the sensation of weight in the air and in a water tank. The relationship between measured weight and the force of gravity is explored with spring scales. The discovery of an anti-gravity force that can be felt in the water tank, measured on the spring scale, and used to make an anti-gravity rocket leads to a series of experiments with the buoyant force. The effect of the mixed forces of gravity and the buoyant force are measured by building equal arm balances and exploring the relationship between mass, volume, and floating or sinking. The problem that Archimedes solved in ancient Greece is explored by building crowns made from "silver" and "gold" mixtures; the ideas of density and the volume of displacement are discovered. The behavior of objects affected by a gravity force and a buoyant force are explored using hydrometers, building ship hulls, and floating ice cubes in mixtures of liquids.



	The World of Gravity										
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price	Quantity Ordered		
Student Journal	GR-SJ			•				\$5.25			
Teacher Manual	GR-TM							\$34.95			
Complete Gravity	GR-1400T-5							\$460.00			
Discovery Center (5 groups per class)		Aluminum cups, pkg Aquarium Beaker set Bucket, clear plastic w/ lid China marker Clay, blue Clay, yellow Clothes pin clip Corn oil, 32 oz Force Balance Supplement Funny Floater Kit (pine plug, aluminum plug, plastic piece, wheaton jar) Graduated cylinder, 100 mL PMP Isopropyl alcohol, 16 oz	LG-0531 AT-1104 LW-0130 LW-0135 LW-0114 GR-1417 GR-1407 LG-0529 LG-0509 EL-1350 GR-1402K LW-0105 LG-0516	1 5 5 5 3 3 5 1 5 2 5 2	Lead Weight Kit (8 oz, 4 oz, 2 oz, 1 oz weights, lead shot) Measuring cup Mineral oil Salt Sand, 2 lb Scale, spring 1000 g Scale, spring 250 g Stirrer, plastic Straw Test tube, 50 mL Test tube, 20 mL (with cap LL-0134) Test tube, 10 mL Storage tower, 8 drawer	GR-1408K LW-0131 LG-0533 LG-0520 GR-1414 GR-1415 GR-1416 LG-0530 LG-0532 LW-0132 LW-0133 LW-0134 WH-1601	5 2 1 5 5 50 25 15 5 1				
Gravity Discovery Center without Force Balance Supplement (5 groups per class)	GR-1401T-5	Same as GR-1400T-5 above without Force Balance Supplements						\$375.00			
Gravity Additional Classroom	GR-1400T-55							\$50.00			
Supplement (5 groups per class)		Aluminum cups, pkg Clay, blue Clay, yellow Corn oil, 32 oz, Funny Floater Kit (pine plug, aluminum plug, plastic piece, wheaton jar)	LG-0531 GR-1417 GR-1407 LG-0509 GR-1402K	1 3 1 2	Isopropyl alcohol, 16 oz Mineral oil Stirrer, plastic Straw	LG-0516 LG-0533 LG-0530 LG-0532	1 2 50 25				
Complete Gravity Discovery Center	GR-1400T-10							\$825.00			
(10 groups per class)		Aluminum cups, pkg Aquarium Beaker set Bucket, clear plastic w/ lid China marker Clay, blue Clay, yellow Clothes pin Clip Corn oil, 32 oz Force Balance Supplement Funny Floater Kit (pine plug, aluminum plug, plastic piece, wheaton jar) Graduated cylinder, 100 mL PMP Isopropyl alcohol, 16 oz	LG-0531 AT-1104 LW-0130 LW-0135 LW-0114 GR-1417 GR-1407 LG-0529 EL-0509 EL-1350 GR-1402K LW-0105 LG-0516	2 2 10 10 10 6 6 10 1 10 2 10 2	Lead Weight Kit (8 oz, 4 oz, 2 oz, 1 oz weights, lead shot) Measuring cup Mineral oil Salt Sand, 2 lb Scale, spring 1000 g Scale, spring 250 g Stirrer, plastic Straw Test tube, 50 mL Test tube, 50 mL Test tube, 10 mL Storage tower, 8 drawer	GR-1408K LW-0131 LG-0533 LG-0520 GR-1414 GR-1415 GR-1416 LG-0530 LG-0532 LW-0132 LW-0133 LW-0134 WH-1601	10 2 2 10 10 100 50 30 10 10 10 10				
Gravity Discovery Center without Force Balance Supplement (10 groups per class)	GR-1401T-10	Same as GR-1400T-10 above without Force Balance Supplements						\$655.00			
Gravity Additional Classroom Supplement	GR-1400T- 105							\$80.00			
(10 groups per class)		Aluminum cups, pkg Clay, blue Clay, yellow Corn Oil, 32 oz Funny Floater Kit (pine plug, aluminum plug, plastic piece, wheaton jar)	LG-0531 GR-1417 GR-1407 LG-0509 GR-1402K	2 6 1 2	Isopropyl alcohol, 16 oz Mineral oil Stirrer, plastic Straw	LG-0516 LG-0533 LG-0530 LG-0532	1 2 100 50				

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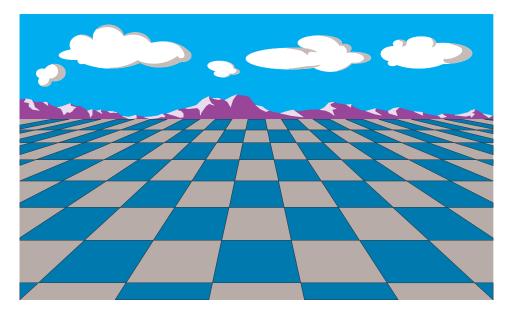
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Language of Patterns										
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered	
Student Journal	LP-SJ							\$5.25		
Teacher Implementation Manual	LP-TM							\$24.95		
Teacher's Guided Tour	LP-GT							\$24.95		
Complete Language	LP-1500T							\$40.00		
of Patterns Discovery Center (10 groups per class)		Blackline Masters, LOP Set Borax Bulb pipet, 5 mL Craft stick Cup, 3 oz	LP-1501K LG-0535 LW-0100 LG-0510 LW-0101	1 2 20 50	Latex glue, 500 mL Test tube, 50 mL Wax paper, roll Storage container	LG-0536 LW-0132 LG-0524 WH-1602	1 1 1 1			
Language of	LP-1500T-S							\$20.00		
Patterns Additional Class Supplement (10 groups per class)		Borax Bulb pipet, 5 mL Craft stick	LG-0535 LW-0100 LG-0510	1 2 20	Cup, 3 oz Latex glue, 500 mL Test tube, 50 mL	LW-0101 LG-0536 LW-0132	50 1 1			

The Language of Patterns is fundamental to the SymmetryScience Curriculum. The SymmetryScience program has created the "Language of Patterns" because it forms the basis of all critical thought processes and is the way the brain naturally analyzes and incorporates new information. Through the Language of Patterns, the SymmetryScience method teaches critical thinking skills across the curriculum while teaching the process of scientific inquiry and the body of scientific knowledge to every student. In the SymmetryScience curriculum, the use of this Language begins in the kindergarten program and continues through high school. A consistent core of Graphical Analyzers and laboratory reporting documents are used in a sequence that parallels the progression of inquiry by the student. Learning the Language of Patterns: A Student's Guide is an activity-based tutorial designed for students in grades four through nine, who are starting the Symmetry Science curriculum without the benefit of having used the Let's Learn With Science K-3 science curriculum. Learning the Language of Patterns: A Student's Guide is a phased introduction to the Language of Patterns vocabulary and the Graphical Analyzer system. This short course brings each student to the appropriate progression of inquiry to begin the SymmetryScience science curriculum at their current grade level. Even as a "stand alone" program, Learning the Language of Patterns: A Student's Guide provides the student with critical thinking skills which can be applied to all learning disciplines. The Teacher Implementation Manual is the teacher companion to the student journal. The Teacher's Guided Tour provides the teacher with a more in depth understanding of the Language of Patterns. Unit 1 of the Guided Tour will provide a deeper understanding of how the Language of Patterns works. Unit 2 is a step-by-step introduction to the Graphical Analyzer System, the graphical approach to learning and using the Language of Patterns in the classroom.





Let's Learn With Science - K												
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price	Quantity Ordered			
LLWS-K Marty's Miraculous Monday Teacher Manual	LK-TM							\$34.95				
Marty's Miraculous Monday Big Story Book	LK-BB							\$49.95				
Complete LLWS-K Discovery Center	LK-0000T							\$525.00				
		Bucket, clear plastic w/ lid Fabric Set (silk, wool, flannel, rayon, corduroy, velvet, cotton, knit) Hula hoop Magnetic Letters Set Magnifying lens Medical Kit, K (stethoscope, digital thermometer and covers, EKG, measuring tape) Paper Set (cardboard, cotton paper, filter paper, tracing paper, wax paper, glossy paper, newspaper, paper towel)	LW-0135 LK-0002K LK-0011 LK-0041 LK-0038 LK-0013K	1 2 3 1 20 1 2	Pattern Blocks Playschool Formfitters Quick Cards Set (clouds, flags, birds, planets, flowers, colors) Rock Pattern Set (pink marble, granite, Mexican black rock, clay, white marble Sorting hoop Squeeze light Web Kit (ping pong ball, Velcro dot, yarn, spider) Storage tower, 8 drawer	LK-0028 LK-0029 QC-5000K LK-0032K LK-0033 LK-0030 LK-0034K WH-1601	1 2 5 1 24 10 1 1					
Recommended to accompany program; purchased separately	SP-6000 SZ-6100T	Poster Set School Zoo					<u> </u>					



Marty's Miraculous Monday (Exploring My World) is the first step in the SymmetryScience system for teaching science literacy. In the entry level, the focus is on developing a sense of how attributes (properties) can be used to sort and classify objects and to recognize and organize patterns. The actual content of a particular pattern is much less important than the awareness gained by the early learner that there is a common language that he/she may employ to explore, describe, measure, analyze and build models of observed patterns. Awareness of the language is the goal - similar to the processes in reading, writing, arithmetic, mathematics, sports, and civic or social interactions. The primary goal of this entry level is for the early learner to gain a sense of the essential qualities of patterns. All patterns are composed of elements that have properties that can be observed and described. The elements in a pattern are placed or repeated according to a particular rule. These rules are an important part of the pattern. Using these aspects of patterns to view the world sets up the context for critical thinking which will be developed in later years. It is a story-based curriculum that introduces the characters, Mary and Marty. Marty is discovering that his world is filled with all sorts of wonderful things. Every day of one wonderful week, Mary shows Marty a new marvel. Before long, he is becoming an expert at recognizing and describing all sorts of patterns and connections in his world. As the week comes to its end, Marty worries that all of his new knowledge will also end. However, Mary helps him discover how



Let's Learn With Science - 1											
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered		
Student Journal	LL1-SJ							\$7.25			
Teacher Manual	LL1-TM							\$69.95			
Teacher Manual Complete LLWS-1 Discovery Center (10 groups per classroom)	LL1-TM LL-1000T	Blackline Masters, LLWS-1 Cars, set of 10 Cling wrap, roll Coffee, small Compass, 1" Container, 1 qt plastic Cotton balls, pkg Craft stick Cup, colored plastic, pkg 50 Dish, 6" plastic Duct tape Fabric Set (silk, wool, flannel, rayon, corduroy, velvet, cotton, knit) Filters, blue Filters, green Filters, red Fishing line, 20-60 lbs. Food coloring, pkg of 4 Forceps, plastic Hula hoop	LL-1033K LL-1001 LG-0501 LG-0551 MG-1802 LW-0113 LG-0538 LG-0540 EL-1323 LG-0540 EL-1323 LG-0539 LK-0002K LL-1004 LL-1006 LL-1008 LL-1009 LL-1009 LL-1010 MC-1910 LK-0011	1 1 1 10 10 1 20 1 4 1 2 2 1 1 1 1 1 1 1 5 3	Paper Set (cardboard, cotton paper, filter paper, tracing paper, wax paper, glossy paper, newspaper, paper towel) Pattern Blocks Q-tips, bx of 300 Quick Cards Set (clouds, flags, birds, planets, flowers, colors) Radiometer Rock & Mineral Set Rock Sorting Set Rubber bands Salt Sand Paper Set Sandwich bags, bx of 50 Shovel Sorting board Sorting band	LK-0019K LK-0028 LL-1018 QC-5000K LL-1019 LL-1020 LL-2001 LG-0523 LG-0520 LL-1021K LG-0502 LL-1021K LG-0502 LL-1027	2 1 1 5 1 1 1 5 0 1 2 1 1 2 0 1	\$69.95 \$675.00			
Recommended to accompany program; purchased separately	SP-6000 SZ-6100T	Lemon extract Magnetic Kit I (clay, cork, lodestone, washers) Magnet, wand Magnifying lens Medical Kit-I (stethoscope, digital thermometer and covers) Moth Ball Kit Paint brushes, pkg 10 Poster Set School Zoo	LL-1011 LL-1012K MG-1801 LK-0038 LL-1013K LL-1014K LL-1017	1 1 10 20 1 1 1	String, 420 ft Sugar packets, bx of 50 Toothpicks, bx Tree of Life Vinegar, 16 oz white Web Kit (ping pong ball, Velcro dot, yarn, spider) White marble, pkg of 50 Zinnia seeds Storage tower, 8 drawer	LL-1028 LG-0537 LG-0504 LL-1029 LG-0525 LK-0034K SWM-1706 LL-1030 WH-1601					



This program is the second step in the Let's Learn With Science program. It extends the Entry Level story-based curriculum started in LLWS-K, Marty's Miraculous Monday, by establishing a pen pal relationship between the two characters Mary and Marty. The primary objective of the previous year's curriculum was for the early learner to become familiar with the structure of patterns and appreciate that patterns could be explored in a systematic way. In the kindergarten program, the students were introduced to the ideas and vocabulary of the core criticalthinking language of SymmetryScience, the Language of Patterns. In LLWS-2, this introduction is formalized by helping each student learn how to structure an observation using the Language of Patterns and a series of graphical organizers. Now, the students will describe their experiences in the natural world by applying their knowledge of basic patterns. The students learn to use properties, grouping, sorting, and patterning as a scientific tool to classify things by actively exploring and experimenting with several aspects of their own world:

- 1. The human senses and the physical properties of things.
- 2. The properties of plants and animals.
- 3. The properties of rocks and soil.





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Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered	
Student Journal	LL2-1-SJ				econd grade classmates and to			\$4.25		
Teacher Manual	LL2-1-TM				s learn the Language of Patteri ir family, and their classmates.			\$34.95		
LLWS-2 Unit 1 The Patterns of Heredity Discovery Center (10 groups per class)	LL2-2000T-1	and envi	unit uses scientific process skills to explore the observable results of heredity and environment, teaching biology, social science, and measurement while using the common context of the Language of Patterns.							
		Beans, black Beans, navy Beans, soldier Black Masters, LOP Set Borax	LL-2003 LL-2004 LL-2005 LP-1501K LG-0535	20 20 20 1	Potting soil, 10 qt Sandwich bags, bx of 50 Sorting board Test tube rack, 25 mm holes	LL-2006 L <i>G</i> -0502 WH-1603 LW-0123	1 1 20 1			
		Craft stick Cup, 3 oz Cup, colored plastic	LG-0510 LW-0101 LG-0540	20 60 20	Test tube, 20 mL (with cap LL-0134) Thermometer covers,	LW-0133 LK-0017	20 2			
		Latex glue, 500 mL Measuring spoon set	LG-0536 AE-1205		bx of 10 Thermometer, digital	LK-0016	4			
		Measuring tape	LK-0018	10	Wax paper, roll Storage tower, 5 drawer	LW-0524 WH-1604	1			
Supplemental Activities Items (Available in LLWS- 1 Discovery Center)		Magnifying lens Quick Cards Set (clouds, flags, birds, planets, flowers, colors)	LK-0038 QC-5000K	10 2	Rock Sorting Set (petrified rock, shale, pumice, white marble, clay, pink marble)	LL-2001	1			
LLWS-2 Unit 1 Additional Classroom	LL2-2000T- 15									
Supplement (10 groups per class)		Beans, black Beans, navy Beans, soldier Cup, 3 oz Craft stick	LL-2003 LL-2004 LL2005 LL-2002 LG-0510	20 20 20 60 20	Latex glue, 500 mL Potting soil, 10 qt Thermometer covers, bx of 10	LG-0536 LL-2006 LW-0133	1 1 2			

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	Let'	s Learn With Science	e-2 Unit i	2 Th	e Patterns of the W	eather					
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered		
Student Journal	LL2-2-SJ	Students explore, measure, o						\$4.25			
Teacher Manual	LL2-2-TM	using the systematic approac integrated unit, students dis				1		\$34.95			
LLWS-2 Unit 2 The Patterns of the Weather Discovery Center (10 groups per class)	LL2-2000T-2	learn how the water cycle an measuring instruments to de	emperature, wind, humidity, clouds, and barometric pressure). They arn how the water cycle and weather are related and build weather easuring instruments to describe and predict the weather and eather patterns; each student takes a turn at being the class weather								
		Aluminum foil, 25 ft roll Arrow template Balloons, 11" Barometer Battery, D Beaker, 250 mL plastic Bucket, clear plastic w/ lid Bulb pipet, 5 mL Clay, blue Compass, 1" Cones, plastic Cups, 1 oz Fan Food coloring, pkg of 4 Halogen light, 500 W Humidity gauge Index cards, 3X5 pkg Isopropyl alcohol, 16 oz Jar, 4" X 7" with lid"	LG-0507 LL-2002 AT-1102 LL-2003 EL-1309 LW-0128 LW-0135 LW-0100 GR-1417 MG-1802 LL-2005 LW-0139 LL-2006 LL-1010 LL-2007 LL-2008 LG-0546 LG-0516 LW-0106	1 10 1 2 10 1 10 1 10 1 10 1 10 1 1 1 1	Mirror, unbreakable Paper clip small, bx of 100 Pipet, 1 mL plastic Poster board, black Rain gauge Ruler, 6" Stopper, one-holed Straw Stirrer, plastic Table clamp Test tube, 50 mL Thermometer, 4" Thermometer, 4" Thermometer, classroom Thread Tissue paper, pkg Weather Watcher paper, pkg Storage tower, 5 drawer	LL-2009 LG-0517 LW-0138 LL-2010 LL-2011 EL-1333 LW-0108 LG-0532 LG-0530 LL-2004 LW-0132 AT-1109 LL-2012 LL-2013 LL-2014 LL-2015 WH-1604	10 1 10 1 10 10 10 10 10 10 10				
LLWS-2 Unit 2 Additional											
Classroom Supplement (10 groups per class)		Balloons, 11" Bulb pipet, 5 mL Isopropyl alcohol, 16 oz	AT-1102 LW-0100 LG-0516	10 10 1	Straw Weather Watcher paper, pkg	LG-0532 LL-2015	10 1				



Item	Catalog Number	Des	cription	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered
Student Journal Teacher Manual LLWS-2 Unit 3 The Patterns of Motion Discovery Center (5-10 groups per class	LL2-3-SJ LL2-3-TM LL2-2000T-3			position approac fundame playgrou discover	i, and c h and ental lo und and r how t erize f	of describing motion in terms lirection are introduced. Stur the Language of Patterns to b inguage of physical science - n d in-class laboratory experime o measure and describe moti- iorces, and see that objects s	dents use a "sto Jegin to speak a Nechanics. Using ents, students on, recognize an	, g the Id	\$4.25 \$34.95 \$150.00	
		Black Maste	rs, Motion tional Set rs, Motion ental Set ic 6" 6" alance Kit clip, 3/8" mp	AT-1102 LL-2016K LL-2020K LL-2005 EL-1307 EL-1322 LL-2017K	5 1 1 16 5 1 5	Magnet, wand Masking tape, roll Paper clips jumbo, bx Stop watch Tape measure, 100 ft Tennis ball Wooden dowel, 16" Storage container	MG-1801 LG-0547 LG-0550 LL-2018 LL-2019 EL-1335 EL-1307 WH-1602	5 1 4 1 5 5 1		
LLWS-2 Unit Additional Classroom Supplement (5-10 groups per class)		Balloons, 11"		AT-1102	5					
			Let's Learn V	With Scienc	e 2 -	· Units 1, 2, 3				
Item		Catalog Number				Description			Price Each	Quantity Ordered
Units 1, 2, and					2 Unit tterns ery Cer ups pe	of Heredity Iter			\$500.00	
			LLWS-2 Unit 2 The Patterns of the Weather Discovery Center (10 groups per class							
					-	LWS-2 Unit 3 The Patterns of Motion Discovery Center 5-10 groups per class				

Let's Learn With Science-2 Unit 3 Patterns of Motion

Recommended to accompany program; purchased separately

SP-6000 SZ-6100T Poster Set School Zoo



Item	Catalog Number	Description	Price Each	#
**Complete LLWS-3 Discovery Center	LL-3000T-4	LLWS-3 Unit 1 Exploring With Science Discovery Center (10 groups per class)	\$900.00	
		LLWS-3 Unit 2 Light, Heat, and Shadow Discovery Center (10 groups per class)		
		LLWS-3 Unit 3 The Patterns in the Sky Discovery Center (5-10 groups per class)		
Recommended to accompany program; burchased separately	SP-6000 SZ-6100T	Poster Set School Zoo		

Symmetry Learning 2001 Catalog



Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered	
Student Journal	LL3-1-SJ	<u>ió-</u>			nd extends the application of t			\$4.25		
Teacher Manual	LL3-1-TM	`\{\} ⁼			ng complicated phenomena scie ar by making slime and then and		2	\$34.95		
LLWS-3 Unit 1 Exploring With Science Discovery Center (10 groups per class	LL3-3000T-1	THOMAS EDISON	experience to learn first-hand how a scientist observes, describes, and models a chemical system as a way to understand the properties observed. Then these process skills are extended, using chromatography to analyze a spot of ink and food coloring as chemical systems.							
		Balloon, 11" Borax Chromatography paper strips Craft stick Cup, colored plastic Cup, 4" clear plastic Food coloring, pkg of 4 Graduated cylinder, 100 mL PMP Guar gum, 25 g Isopropyl alcohol, 16 oz Measuring spoon set Quick Cards Set (clouds, flags, birds, planets, flowers, colors)	AT-1102 LG-0535 LL-3002 LG-0510 LG-0540 LG-0500 LL-1010 LW-0105 LL-3001 LG-0516 AE-1205 QC-5000K	100 1 75 10 20 50 1 10 1 10 1 2 1 2	Rock Sorting Set (petrified rock, shale, pumice, white marble, clay, pink marble Ruler, 6" Sandwich bags, bx of 50 Sorting board Sorting shells Stirrer, plastic Test tube, 20 mL (with cap LL-0134) Test tube rack, 25 mm holes Toothpicks, bx Wax paper, roll Storage Tower, 8 drawer	LL-2001 EL-1333 LG-0502 WH-1603 LL-1027 LG-0530 LW-0133 LW-0123 LG-0532 LW-0524 WH-1601	1 10 1 20 1 50 10 1 1 1 1 1 1			
LLWS-3 Unit 1 Exploring With	LL3-3000T-1-S									
Science Additional Classroom Supplement (10 groups per class)		Chromatography paper strips Craft stick	LL-3002 LG-0510	75 10	Isopropyl alcohol, 16 oz Stirrer, plastic	LG-0516 LG-0530	2 50			



		LLWS-3	Unit 2 Li	ght,	Heat, and Shadow							
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered			
Student Journal	LL3-2-SJ	Students explore how light is						\$4.25				
Teacher Manual	LL3-2-TM	and its refraction, reflectior they explore shadows and ex						\$34.95				
LLWS-3 Unit 2 Light, Heat, and Shadow Discovery Center (10 groups per class	LL3-3000T-2	the concept of transformation	onships that govern shadow quality, shape, and size. Finally, oncept of transformations of energy are introduced by ring the relationship between light and heating of the earth									
		Adapter, 3 prong Blindfold Bubble solution Bubble wands, set Bucket, clear plastic w/ lid Bulb, 25 W Bulb, 40 W Bulb, 40 W Bulb, 75 W Bulb, 50 W Bulb, 50 W Bulb, black Bulb, blue Bulb, green Bulb, red Bulb, mini string Cardboard 4"x5" with slit Chemilume sticks, set of 3 colors Clamp light Clay	LL-3038 LL-3003 LL-3004 LL-3005 LW-0135 LL-3014 LL-3015 LL-3016 LL-3017 LL-3018 LL-3020 LL-3020 LL-3022 LL-3026 GR-1417	1 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Diffraction grating Dimmer Fabric, black 4"x5" Fabric, white 4"x5" Flashlight Geometric shapes set Halogen light, 500 W Index cards, 3X5 pkg Laser pointer Materials set Measuring tape Mirror, unbreakable Prism Ruler, 12" Shovel Spray bottle Straw Thermometer, 4" Thermometer, candy Storage tower, 5 drawer	LL-3008 LL-3019 LL-3010 LL-3011 LL-3012 LL-3040 LL-2007 LG-0546 LL-3013 LL-3037 LK-0018 LL-2009 LL-3023 LL-3024 LL-1026 LL-3022 AT-1109 LL-3025 WH-1604	10 1 10 10 10 10 1 1 1 1 1 10 10 1 10 10					
LLWS-3 Unit 2 Additional Classroom												
Supplement (10 groups per class)		Chemilume sticks, set of 3 colors	LL-3007	1	Straw	LG-0532	10					



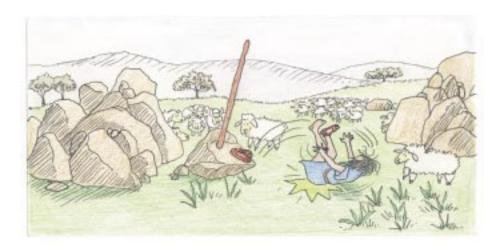
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price Each	Quantity Ordered	
Student Journal	LL3-3-SJ				e Language of Patterns and pro		quiry	\$4.25		
Teacher Manual	LL3-3-TM				elationship of the sky and the id measurements of daytime pr			\$34.95		
LLWS-3 Unit 3 The Patterns in the Sky Discovery Center (5-10 groups per class	LL3-3000T-3		explored by experimenting with photocells and thermometers. Students construct models to explain the observation of the motion of the sun, the phases of the moon, and appearance of the stars and planets. This unit builds on the principles of light, heat, and shadows explored in LLWS-3 Unit 2.							
		Adapter, 3 prong Alligator clip cables Atmosphere drape kit (3 3/8" binder clip 1 white drape) Battery, 9V Bowl, plastic Bulbs, 300 watt Bulbs, mini string China marker Clamp light Compass, field Dimmer Earth globe Flashlight	LL-3038 EL-1316 LL-3027K EL-1308 LL-3028 LL-3028 LL-3022 LW-0114 LL-3022 LW-0114 LL-3029 LL-3009 LL-3030 LL-3012	1 10 1 5 1 1 5 1 1 1 1 4 5	Map pins, bx Poster board, black Presentation board, black Solar cell Skewers Styrofoam ball, 2" Styrofoam ball, 4" Thermometer, 4" Toilet paper, 1000 sht roll Velcro dot, 1/2" Velcro hook, 1/2" Voltmeter Wax paper, roll Storage tower, 5 drawer	LG-0548 LL-2010 LL-3032 LL-3033 LL-3034 LL-3035 LL-3036 AT-1109 LG-0549 LG-0549 LK-0012 LK-0040 EL-1336 LG-0524 WH-1604	1 5 10 10 10 10 10 10 1 4 4 5 1 1			
LLWS-3 Unit 3 Additional Classroom	LL3-3000T- 35	-	1							
Supplement (5-10 groups per class)		Poster board, black	LL-2010	5	Toilet paper, 1000 sht roll	LG-0549	1			

LLWS-3 Unit 3 The Patterns in the Sky



Magnets and Magnetism

Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price	Quantity Ordered
Student Journal	MG-SJ							\$6.25	
Teacher Manual	MG-TM							\$34.95	
Complete Magnets	MG-1800T-5							\$150.00	
Discovery Center (5 groups per class)		China marker Clay, blue Compass Set (1" compass, mini- compass) Dowel rod, 6" Feathers, pkg Force Balance Supplement Glass rod Iron filings envelop Magnet, bar Magnet, disc	LW-0114 GR-1417 MG-1805K MG-1812 EL-1322 EL-1350 LW-0126 MG-1811 MG-1808 MG-1809	5 1 1 5 1 5 5 5 5 5 5	Magnet, horseshoe Magnet, wand Plastic rod Shredded aluminum foil Shredded paper Steel Items Kit (1/4" washers, paper clips, 1/4" x 8" steel bolt) Tennis ball Thread Storage tower, 5 drawer	MG-1810 MG-1801 LW-0127 EL-1324 EL-1325 MG-1813K EL-1335 LL-2013 WH-1604	5 5 5 1 1 1 5 1 1		
Complete Magnets Discovery Center (10 groups per class)	MG-1800T-10	China marker Clay, blue Compass Set (1" compass, mini- compass) Dowel rod, 6" Feathers, pkg Force Balance Supplement Glass rod Iron filings envelop Magnet, bar Magnet, disc	LW-0114 GR-1417 MG-1805K MG-1812 EL-1322 EL-1350 LW-0126 MG-1811 MG-1808 MG-1809	10 1 2 10 1 10 10 10 10 10 10	Magnet, horseshoe Magnet, wand Plastic rod Shredded aluminum foil Shredded paper Steel Items Kit (1/4" washers, paper clips, 1/4" x 8" steel bolt) Tennis ball Thread Storage tower, 5 drawer	MG-1810 MG-1801 LW-0127 EL-1324 EL-1325 MG-1813K EL-1335 LL-2013 WH-1604	10 10 10 1 1 2 10 1 1	\$285.00	



Level 4-5. **Magnets and Magnetism** The relationship between magnetism and electricity is explored by showing that flowing current orients a compass needle and that these magnetic field lines can be shown with iron filings. The use of these effects to measure electricity is explored by building a galvanometer. After building an electromagnet, magnetic field lines are mapped; an electromagnetic motor and a solenoid are studied to explore work and motion. The Faraday effect is discovered and used to build an electrical generator. Induction is explored by experimenting with two wound coils, and the transformer is explored making sparks, radio waves, and light from electric current and an electromagnetic coil.



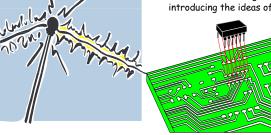
			Micros	scope					
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price	Quantity Ordered
Student Journal	MC-SJ					1	•	\$6.25	
Teacher Manual	MC-TM							\$34.95	
Complete	MC-1900T-5							\$275.00	
Microscope Discovery Center (5 groups per class)		Beaker, 250 mL glass Blades, carbon steel Bleach, 32 oz Bulb pipet, 5 mL Colored Fibers Kit Cork, small Corn oil, 32 oz Cotton ball Cup, 3 1/2" clear plastic Forceps, plastic Forceps, sharp Funnel Glass pebble, clear Gloves, vinyl, 10 pr Graduated cylinder, 100 mL, PMP Graticule Ground black pepper, vial Isopropyl alcohol, 16 oz	LW-0112 MC-1915 LG-0508 LW-0100 MC-1903K MC-1916 LG-0509 LG-0538 LG-0534 MC-1910 MC-1912 LW-0104 MC-1911 LW-0120 LW-0105 MC-1906 MC-1907 LG-0516	20 5 1 50 2 4 25 5 5 5 5 5 5 5 1 5 5 1 5 1	Kim Wipes, bx Magnifying lens Marble, clear glass Microscope coverslips, plastic, bx of 100 Microscope-well slides, bx of 10 Microscope-frost slides, bx of 72 Peppercorns, vial Rice, vial Ruler, 6" Specimen slide set, bx of 25 Straws, carnival, bx Tincture of iodine, bottle Toothpicks, bx Vials, glass Storage container, 5 drawer	LW-0117 LK-0038 MC-1902 MC-1908 MC-1905 MC-1904 MC-1909 MC-1911 EL-1333 MC-1913 LG-0503 MC-1914 LG-0504 LW-0107 WH-1604	1 5 5 1 1 1 1 5 1 1 5 1 1 1 5 1 1 5 1		
Microscope Additional Classroom Supplement (5 groups per class)	MC-1900T- 55	Bulb pipet, 5 mL Colored Fibers Kit Cork, small Corn oil, 32 oz Cup, 3 1/2" clear plastic	LW-0100 MC-1903K MC-1916 LG-0509 LG-0534	50 1 2 1 25	Isopropyl alcohol, 16 oz Microscope coverslips, plastic, bx of 100 Microscope-frost slides, bx of 72	LG-0516 MC-1908 MC-1904	1 1 1	\$32.50	
Complete	MC-1900T-10							\$465.00	
Microscope Discovery Center (10 groups per class)		Beaker, 250 mL glass Blades, carbon steel Bleach, 32 oz Bulb pipet, 5 mL Colored Fibers Kit Cork, small Corn oil, 32 oz Cotton ball Cup, 3 1/2" clear plastic Forceps, plastic Forceps, plastic Forceps, plastic Glass pebble, clear Gloves, vinyl, pkg Graduated cylinder, 100 mL, PMP Graticule Ground black pepper, vial Isopropyl alcohol, 16 oz	LW-0112 MC-1915 LG-0508 LW-0100 MC-1903K MC-1916 LG-0509 LG-0538 LG-0534 MC-1910 MC-1912 LW-0104 MC-1901 LW-0105 MC-1906 MC-1907 LG-0516	40 5 2 100 2 4 2 4 50 10 10 10 10 2 10 10 10 1 2	Kim Wipes, bx Magnifying lens Marble, clear glass Microscope coverslips, plastic, bx of 100 Microscope-well slides, bx of 10 Microscope-frost slides, bx of 72 Peppercorns, vial Rice, vial Ruler, 6" Specimen slide set, bx of 25 Straws, carnival, bx Tincture of iodine, bottle Toothpicks, bx Vials, glass Storage container, 8 drawer	LW-0117 LK-0038 MC-1902 MC-1908 MC-1905 MC-1904 MC-1904 MC-1911 EL-1333 MC-1911 EL-0503 MC-1914 LG-0504 LW-0107 WH-1601	1 10 2 2 2 1 1 10 10 1 2 1 1 30 1		
Microscope Additional	MC-1900T- 105						_	\$65.00	
Classroom Supplement (10 groups per class)		Bulb pipet, 5 mL Colored Fibers Kit Cork, small Corn oil, 32 oz Cup, 3 1/2" clear plastic	LW-0100 MC-1903K MC-1916 LG-0509 LG-0534	100 2 4 2 50	Isopropyl alcohol, 16 oz Microscope coverslips, plastic, bx of 100 Microscope-frost slides, bx of 72	LG-0516 MC-1908 MC-1904	2 2 2		



Level 6-7. **The Microscope** In this SymmetryScience Segment the use and care of the microscope are taught by considering the microscope as a tool that extends human senses. Although the microscope is traditionally considered a "biologist's" tool, the principles of physics and engineering design that make the microscope so valuable in biology are presented first. A review of the optical principles that allow lenses to magnify and form images is presented in a series of experiments that also teach the scientific method, including control experiments and dependent and independent variables. Then, the application of the microscope, primarily in biology, is explored. Samples from the biological world are explored as students gain experience with the compound microscope.

			Sparks to	Circ	cuits				
Item	Catalog Number	Description	Catalog Number	#	Description	Catalog Number	#	Price	Quantity Ordered
Student Journal	SP-SJ							\$5.25	
Teacher Manual	SP-TM							\$34.95	
Complete Sparks to Circuits Discovery Center (5 groups per class)	EL-1304T-5	Aluminum foil, 25' roll Balloon, 11" Battery, 9V Battery, D Clothes pin clip Copper electrode, 1/2"X2" Current Electricity Kit (battery holder, switch, resistor, alligator clip cables, bulb, socket, buzzer) Dish, 6" plastic Electroscope Kit (Erlenmeyer flask, stopper, 6" curved rod) Feathers, pkg Filter paper, pkg	LG-0507 AT-1102 EL-1308 EL-1309 LG-0529 EL-1310 EL-1312K EL-1323 EL-1320K EL-1322 LG-0512	1 5 20 5 5 5 5 5 1	Force Balance Supplement Glass rod NaCl, 0.15M Pencil lead Ruler, 6" Plastic rod Shredded Aluminum Foil Shredded paper Static Electricity II Kit (fluorescent tube, wool) Steel wool pad Toothpicks, bx Voltmeter Wire, 25 ft Zinc electrode, 1/2"X2" Storage tower, 8 drawer	EL-1350 LW-0126 LG-0526 LG-0534 EL-1333 LW-0127 EL-1324 EL-1325 EL-1348K LG-0504 LG-0504 EL-1336 EL-1337 EL-1339 WH-1601	5 5 1 1 5 5 1 1 5 1 1 5 1 5 1 5 1	\$600.00	
Sparks to Circuits Discovery Center without Force Balance Supplement (5 groups per class)	EL-1305T-5	Same as EL-1304T-5 above without Force Balance Supplements						\$515.00	
Complete Sparks to Circuits Discovery Center	EL-1304T-10							\$1,125.00	
(10 groups per class)		Aluminum foil, 25' roll Balloon, 11" Battery, 9V Battery, D Clothes pin clip Copper electrode, 1/2"X2" Current Electricity Kit (battery holder, switch, resistor, alligator clip cables, bulb, socket, buzzer) Dish, 6" plastic Electroscope Kit (Erlenmeyer flask, stopper, 6" curved rod) Feathers, pkg Filter paper, pkg	LG-0507 AT-1102 EL-1308 EL-1309 LG-0529 EL-1310 EL-1321K EL-1323 EL-1320K EL-1322 LG-0512	1 10 10 10 10 10 10 10 10 10 10	Force Balance Supplement Glass rod NaCl, 0.15M Pencil lead Plastic rod Ruler, 6" Shredded Aluminum Foil Shredded paper Static Electricity II Kit (fluorescent tube, wool) Steel wool pad Toothpicks, bx Voltmeter Wire, 25 ft Zinc electrode, 1/2"X2" Storage tower, 8 drawer	EL-1350 LW-0126 LG-0526 LG-0534 LW-0127 EL-1333 EL-1324 EL-1325 EL-1334 LG-0504 EL-1336 EL-1337 WH-1601	1 10 2 1 10 10 10 1 10 1 10 1 10 1		
Sparks to Circuits Discovery Center without Force Balance Supplement (10 groups per class)	EL-1305T-10	Same as EL-1304T-10 above without Force Balance Supplements						\$955.00	

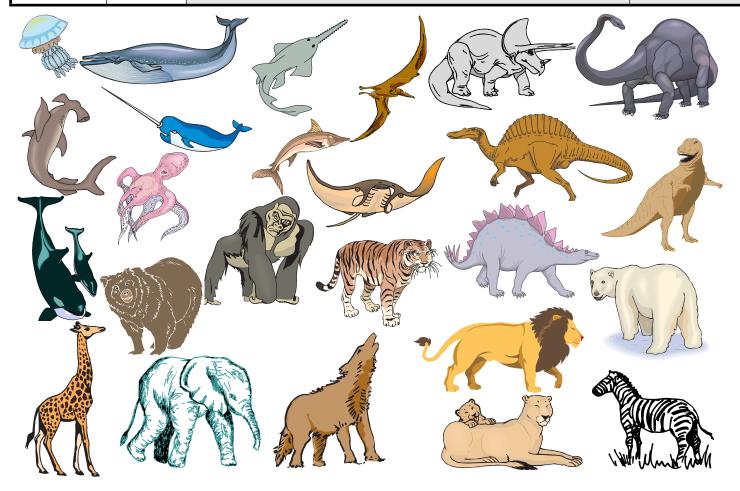
Level 6-7. **Sparks to Circuits** Similar to the structure of The Electric World, this Segment is designed for older students and can be used to review and extend experience with electricity. In addition to the experimental experiences listed above in the Electric World, students learn how static charge can flow down a wire and that there is a difference between induction and conduction. The flow of charge in series, parallel, and logic circuits is explored along with Ohm's Law. This Segment prepares students to use modeling in hypothesis testing and experimental design by introducing the ideas of model-making.





	Poster Set									
Item	Catalog Number	Description	Price	Quantity Ordered						
Complete Poster Set	SP-6000		\$49.95							
(Designed to accompany Let's Learn With Science programs K, 1, 2 and 3)	(Available only as a complete set. Items are not available individual purchase)	Ocean Animals Pond Life Prehistoric Life Sky Map Solar System Tropical Rain Forest								

			School Zoo			
Item	Catalog Number		Description		Price	Quantity Ordered
Complete School Zoo	SZ-6100T				\$425.00	
(Designed to accompany Let's Learn With Science programs K, 1, 2, and 3)	(Available only as a complete set. Items are not available individual purchase)	Allosaurus Deinosuchus Deltadromeus agilis Diplodocus Elasmosaurus Kronosaurus Pteradon Quezalcoatlus Spinosaurus Stegosaurus T-Rex Triceratops	Bottlenose Dolphin Giant Squid Great White Shark Grey Whale-Adult Grey Whale-Calf Hammerhead Shark Humpback Whale-Calf Jellyfish Manta Rays Narwhal Octopus Sawfish Sea Otter Family Sperm Whale-Calf Sperm Whale-Adult	Elephant Giraffe-Baby Giraffe-Male Gorilla-Male Grizzly Bear Lion-Cub Lion-Female Lion-Male Mountain Gorilla Polar Bear Tiger Shark Timber Wolf White Tiger-Male Zebra		





Catalog #	Kit	# per Kit	Kit Contents	Price Each	Catalog #	Kit	# per Kit	Kit Contents	Price Each
LP-1501K	Blackline LOP Masters, set			\$17.50					
LP-1526		1	Background Space Analyzer	\$0.50	LP-1541		1	Scientific Method: Experimental & Theoretical Steps	\$0.50
LP-1527		1	Background Space Analyzer, examples	\$0.50	LP-1511		1	Sorting Analyzer, animal sorting	\$0.50
LP-1528		1	Background Space Analyzer, perpetual motion problem	\$0.50	LP-1512		1	Sorting Analyzer, geometric pattern sorts	\$0.50
LP-1539		1	Coding Grid, electronic schematic example	\$0.50	LP-1513		1	Sorting Analyzer, geometric pattern sorts, answers	\$0.50
LP-1538		1	Coding Grid, pattern squares example	\$0.50	LP-1509		1	Sorting Analyzer, labeled	\$0.50
LP-1537		1	Coding Grid, template	\$0.50	LP-1514		1	Sorting Analyzer, observable inferred	\$0.50
LP-1521		1	Element Analyzer, night-time sky observation example	\$0.50	LP-1510		1	Sorting Analyzer, pattern example	\$0.50
LP-1520		1	Element Analyzer, template	\$0.50	LP-1508		1	Sorting Analyzer, template	\$0.50
LP-1525		1	Element Counter, spider's web example	\$0.50	LP-1531		1	Structure Analyzer, cooking examples	\$0.50
LP-1524		1	Element Counter, template	\$0.50	LP-1530		1	Structure Analyzer, pattern example	\$0.50
LP-1523		1	Element Extractor, pattern example	\$0.50	LP-1536		1	Structure Analyzer, pond analysis example	\$0.50
LP-1522		1	Element Extractor, template	\$0.50	LP-1532		1	Structure Analyzer, sports examples	\$0.50
LP-1547		1	Laboratory Report, Hypothesis Testing	\$0.50	LP-1529		1	Structure Analyzer, template	\$0.50
LP-1546		1	Laboratory Report: Observation	\$0.50	LP-1533		1	Structure Analyzer, worship examples	\$0.50
LP-1503			Language of Patterns: dog example	\$0.50	LP-1517		1	Sub-sorting Analyzer, chemical analysis	\$0.50
LP-1505		1	Language of Patterns: sample structures	\$0.50	LP-1518			Sub-sorting Analyzer, games	\$0.50
LP-1504		1	Language of Patterns: vocabulary & definitions	\$0.50	LP-1519		1	Sub-sorting Analyzer, games answers	\$0.50
LP-1507		1	Property Analyzer, lemon example	\$0.50	LP-1516		1	Sub-sorting Analyzer, pattern example	\$0.50
LP-1506		1	Property Analyzer, template	\$0.50	LP-1515		1	Sub-sorting Analyzer, template	\$0.50
LP-1540		1	Scientific Inquiry and Critical Analysis	\$0.50	LP-1544		1	Technical Writing Analyzer, chemistry examples	\$0.50
LP-1502		1	Scientific Method	\$0.50	LP-1545		1	Technical Writing Analyzer, football example	\$0.50
LP-1542		1	Scientific Method: Example	\$0.50	LP-1543		1	Technical Writing Analyzer, pattern squares example	\$0.50
LP-1549K	Blackline LOP Masters, supplemental set			\$6.50					
LP-1550		1	Classifying Analyzer, patterns example	\$0.50	LP-1557		1	Evolution Analyzer, story line example	\$0.50
LP-1551		1	Classifying Analyzer, patterns example answer	\$0.50	LP-1558		1	Evolution Analyzer, template	\$0.50
LP-1552		1	Classifying Analyzer, rain clouds example	\$0.50	LP-1559		1	Ordinal Sorter, tadpole example	\$0.50
LP-1553		1	Classifying Analyzer, rain clouds example answer	\$0.50	LP-1560		1	Ordinal Sorter, template	\$0.50
LP-1554		1	Compare and Contrast Analyzer, pattern example	\$0.50	LP-1561		1	Structure Property Analyzer	\$0.50
LP-1555		1	Compare and Contrast Analyzer, template	\$0.50	LP-1562		1	The Worlds of Critical Thinking	\$0.50
LP-1556		1	Evolution Analyzer, pond succession example	\$0.50					
LL-1033K	Blackline Masters, LLWS-1		set of 3		LL-2016K	Blackline Masters, Motion Instructional Set			
					LL2020K	Blackline Masters, Motion Supplemental Set			



SymmetryScience Kit Contents

		#					#		
Catalog #	Kit	per Kit	Kit Contents	Price Each	Catalog #	Kit	per Kit	Kit Contents	Price Each
LL-3037K	Atmosphere Drape			\$1.30	LL-1012K	Magnetic Kit			\$14.00
1.0.050/	Kit						40		to 10
LG-0506 LL-3041		3	binder clip, 3/8"	\$.15	MC-1916		10	cork, small lodestone	\$0.10
	Coloured Eith and Kit	1	white drape, 3"3'	\$1.20	MG-1803		10 10		\$0.80
MC-1903K MG-1805K	Colored Fibers Kit Compass Set		assorted colored fibers	\$2.00 \$23.75	MG-1804 LL-3037	Materials Set	10	washers, 1/4"	\$0.05 \$1.85
MG-1805K MG-1802	compass Set	5	compass, 1"	\$1.60	LL-3037	Materials Set	5	Acetate paper, 4"X5"	.25
MG-1802 MG-1806		5	mini-compass set	\$3.15	LL-3042 LL-3043		5	Foam board, 4"X5"	\$1.60
EL-1312K	Current Electricity	5	Mini-compass ser	\$20.75	LE-3043	Medical Kit, K	5	Tourn Dourd, 4 X3	\$27.00
CL-IJIER	Kit			Ψ20.75	EK-0013K				Ψ27.00
EL-1316		5	alligator clip cables	\$1.00	LK-0015		5	EKG (laminated)	\$1.25
EL-1313		1	battery holder	\$3.00	LK-0018		1	measuring tape	\$1.25
EL-1317		1	bulb	\$1.00	LK-0014		1	stethoscope	\$12.25
EL-1319		1	buzzer	\$6.25	LK-0017		1	thermometer covers, bx 10	\$2.05
EL-1315		1	resistor	\$1.00	LK-0016		1	thermometer, digital	\$5.20
EL-1319		1	socket	\$2.25	LL-1013K	Medical Kit-l		-	\$19.50
EL-1314		1	switch	\$3.25	LK-0014		1	stethoscope	\$12.25
EL-1320K	Electroscope Kit			\$7.25	LK-0017		1	thermometer covers, bx 10	\$2.05
LW-0103		1	Erlenmeyer flask	\$4.75	LK-0016		1	thermometer, digital	\$5.20
EL-1321		1	rod, 6" curved	\$1.50	LL-1014K	Moth Ball Kit	1	mermomerer, aigitai	\$1.25
LW-0125		1	stopper	\$1.00	LL-1015		1	identifying sheet	\$0.25
LL-2071K	Faual Arm Balance	-		\$4.60	LL-1016		2	moth ball	\$0.50
EE EO/IR	Equal Arm Balance Kit			\$1.00	22 1010			nom ban	\$0.50
LG-0506		3	binder clip, 3/8"	\$.15	LK-0019K	Paper Set			\$10.00
LL-2004		1	table clamp	\$4.20	LK-0020		5	cardboard, 4"X5"	\$0.25
EL-1340		3	S hook, 1"	\$.25	LK-0021		5	cotton paper, 4"X5"	\$0.25
LK-0002K	Fabric Set			\$20.00	LK-0022		5	filter paper	\$0.25
LK-0007		5	corduroy, 6"x 6"	\$0.50	LK-0025		5	glossy paper, 4"X5"	\$0.25
LK-0009		5	cotton, 6"x 6"	\$0.50	LK-0026		5	newspaper, 4"X5"	\$0.25
LK-0005		5	flannel, 6"x 6"	\$0.50	LK-0027		5	paper towel, 4"X5"	\$0.25
LK-0010		5	knit, 6"x 6"	\$0.50	LK-0023		5	tracing paper, 4"X5"	\$0.25
LK-0006		5	rayon, 6"x 6"	\$0.50	LK-0024		5	wax paper, 4"X5"	\$0.25
LK-0003		5	silk, 6"x 6"	\$0.50	QC-5000K	Quick Cards Set			\$325.00
LK-0008		5	velvet, 6"x 6"	\$0.50	QC-5300K		5	birds, set of 24	\$13.20
LK-0004		5	wool, 6"x 6"	\$0.50	QC-5100K		5	clouds, set of 17	\$8.80
EL-1343K	Force Balance Kit			\$2.20	QC-5600K		5	colors, set of 7	\$3.15
LG-0506		3	binder clip, 3/8"	\$0.15	QC-5200K		5	flags, set of 31	\$17.60
LG-0505		3	binder clip, 5/8"	\$0.20	QC-5500K		5	flowers, set of 22	\$12.10
EL-1306		3	S hook, 1 1/2"	\$0.25	QC-5400K		5	planets, set of 20	\$11.00
EL-1340		2	S hook, 1"	\$0.15	LK-0032K	Rock Pattern Set			\$12.50
EL-1341	From Flootson Kit	2	wire, 12"	\$0.15	SCL-1704		5	clay stone	\$0.50
GR-1402K	Funny Floaters Kit	+ -	a hann Saranna a ba	\$2.80	SGR-1702		5	granite	\$0.50
GR-1404		1	aluminum plug	\$0.20	SMB-1703 SPM-1701		5	Mexican black rock	\$0.50
GR-1403 GR-1405		1	pine plug plastic piece	\$0.10 \$0.50			5 5	pink marble white marble	\$0.50 \$0.50
					SWM- 1705		5	white hid ble	
GR-1406		1	wheaton jar	\$2.00	LL-1021K	Sand Paper Set			\$5.00
GR-1408K	Lead Weight Kit			\$7.35	LL-1023		5	100 grit	\$0.25
GR-1413		2	lead shot, pkg	\$1.70	LL-1024		5	120 grit	\$0.25
GR-1412		1	weight, 1 oz	\$0.25	LL-1022		5	80 grit	\$0.25
GR-1411		1	weight, 2 oz	\$0.50	LL-1025		5	fine	\$0.25
GR-1410		1	weight, 4 oz	\$1.05	EL-1326K	Static Electricity I Kit			\$5.65
GR-1409		1	weight, 8 oz	\$2.15	EL-1331		1	flannel, 8"X8"	\$0.50
LL-1012K	Magnetic Kit	 		\$14.00	EL-1327		1	fluorescent tube	\$3.15
MC-1916		10	cork, small	\$0.10	EL-1330		1	fur, 8"X8"	\$0.50
MG-1803		10	lodestone	\$0.80	EL-1332		1	polyester, 8"X8"	\$0.50
MG-1804		10	washers, 1/4"	\$0.05	EL-1329		1	silk, 8"X8"	\$0.50
					EL-1328		1	wool, 8"X8"	\$0.50

SymmetryScience Kit Contents



Catalog #	Kit	# per Kit	Kit Contents	Price Each	Catalog #	Kit	# per Kit	Kit Contents	Price Each
EL-1348K	Static Electricity II Kit			\$3.75	LK-0034K	Web Kit			\$9.75
EL-1327		1	fluorescent tube	\$3.15	LK-0035		24	ping pong ball	\$0.10
EL-1328		1	wool, 8"X8"	\$0.50	LK-0037		3	spider	\$0.25
MG-1813K	Steel Items Kit			\$7.70	LK-0012		96	Velcro dot	\$0.05
LG-0517		1	paper clips small, bx 100	\$1.00	LK-0036		1	yarn, skein	\$1.85
MG-1815		5	steel bolt, 1/4" x 8"	\$1.00					
MG-1814		1	washers, 1/4", bx of 30	\$1.70					
EL-1334		1	steel wool pad	\$0.75					







Catalog #	Item	Price Each	#	Total Cost	Catalog #	Item	Price Each	#	Total Cost
LL-3042	Acetete 4"X5"	\$0.15			LK-0020	Cardboard, 4"X5"	\$0.25		
LL-3038	Adapter, 3 prong	\$0.85			LL-1001	Cars, set of 10	\$3.15		
AE-1210	Alcohol lamp & stand	\$5.10			LL-3007	Chemilume sticks, set of 3 colors	\$6.00		
EL-1316	Alligator clip cables	\$1.00			LW-0114	China marker	\$1.75		
LG-0531	Aluminum cups, pkg	\$2.00			LL-3002	Chromatography paper strips, 3"	\$0.05		
AE-1211	Aluminum dish	\$0.15			LG-0527	Citric Acid	\$5.65		
LG-0507	Aluminum foil, 25 ft roll	\$1.50			LL-3026	Clamp light	\$12.50		
GR-1404	Aluminum plug	\$0.20			SCL-1704	Clay stone	\$0.50		
AT-1104	Aquarium, 10 gal	\$19.95			GR-1417	Clay, blue	\$4.60		
LL-2002	Arrow template	\$0.15			GR-1407	Clay, yellow	\$4.60		
LL-3027K	Atmosphere drape kit	\$1.50			LG-0501	Cling wrap, 1 roll	\$4.20		
AT-1112	Ball, 4"	\$10.50			LG-0529	Clothes pin clip	\$0.15		
AT-1102	Balloon, 11"	\$0.15			AE-1202	Cobalt chloride, 100 g	\$24.25		
AT-1118	Balloon, 16"	\$0.25			LG-0551	Coffee, small	\$3.95		
AT-1103	Balloon, 5"	\$0.15			MC-1903K	Colored Fibers Kit	\$2.00		
LL-2003	Barometer	\$18.95			MG-1805K	Compass Set	\$23.75		
MG-1808	Bar magnet, bx of 2	\$4.30			MG-1802	Compass, 1"	\$1.60		
EL-1308	Battery, 9V	\$3.25			LL-3029	Compass, field	\$8.50		
EL-1309		\$1.75			LL-2005				
	Battery, D					Cones, plastic	\$1.55		<u> </u>
EL-1313	Battery holder	\$3.00			LW-0113	Container, 1 qt plastic	\$3.25		<u> </u>
LW-0130	Beaker set	\$7.50			EL-1311	Copper electrode 1/2"X2"	\$0.50		
LW-0112	Beaker, 250 mL glass	\$3.90			LK-0007	Corduroy fabric, 6"x6"	\$0.50		<u> </u>
LW-0128	Beaker, 250 mL plastic	\$1.20			MC-1916	Cork, small	\$0.10		
LL-2003	Beans, black	\$1.05			LW-0115	Cork, size 7 (for 30 mL tube)	\$0.50		
LL-2004	Beans, navy	\$1.05			LG-0509	Corn oil, 32 oz	\$3.75		
LL-2005	Beans, soldier	\$0.82			LG-0538	Cotton ball	\$0.05		
LG-0506	Binder clip, 3/8"	\$0.15			LG-0538	Cotton balls, pkg	\$2.00		
LG-0505	Binder clip, 5/8"	\$0.20			LK-0009	Cotton fabric, 6"x 6"	\$.50		
LP-1501K	Blackline LOP Masters, set	\$17.50			LK-0021	Cotton paper, 4"X5"	\$0.25		
LL-2016K	Black Masters, Motion Instructional Set	\$0.55			LG-0510	Craft stick	\$0.05		
LL-2020K	Black Masters, Motion Supplemental Set	\$0.4500			LW-0139	Cup, 1 oz	\$0.25		
LL-1033K	Blackline Masters, LLWS-1	\$0.35			LG-0534	Cup, 3 1/2" clear plastic	\$0.15		
MC-1915	Blades, carbon steel,	\$.20			LW-0101	Cup, 3 oz	\$0.05		
LG-0508	Bleach, 32 oz	\$1.65			LG-0500	Cup, 4" clear plastic	\$0.15		
LL-3003	Blindfold	\$1.10			LG-0540	Cups, colored plastic, pkg of 50	\$4.00		
LG-0535	Borax	\$1.10			EL-1312K	Current Electricity Kit	\$20.75		
LL-3028	Bowl, plastic	\$6.25			EL-1321	Curved rod, 6"	\$1.50		
SB-1707	Brick pieces	\$0.15			LL-3009	Dimmer	\$29.30		
LL-3004	Bubble solution, 8 oz	\$1.05			EL-1323	Dish, 6" plastic	\$0.25		
LL-3005	Bubble wands, set	\$1.55			LG-0511	Dishwashing detergent	\$2.50		
LW-0135	Bucket, clear plastic w/ lid	\$4.30			LG-0528	Distilled water, 1 L	\$3.25		
LW-0100	Bulb pipet, 5 mL	\$0.10			MG-1807	Dowel rod, 6"	\$0.10		
LL-3014	Bulb, 25 W	\$1.85			EL-1307	Dowel rod 1/2" X 16"	\$3.00		
LL-3031	Bulb, 300 watt	\$10.50			LL-1002	Duct tape	\$2.25		1
LL-3015	Bulb, 40 W	\$0.75			LL-3030	Earth globe	\$10.50		+
LL-3016	Bulb, 60 W	\$0.75			LK-0015	EKG (laminated)	\$1.25		
LL-3017	Bulb, 75 W	\$0.75			LW-0102	Electronic scale	\$129.00		
LL-3017	Bulb, black	\$4.90			EL-1320K	Electroscope Kit	\$7.25		
LL-3018 LL-3019	Bulb, blue	\$4.90			LL-2017K	Equal Arm Balance Kit	\$7.25		<u> </u>
									<u> </u>
LL-3020	Bulb, green	\$4.90			LW-0103	Erlenmeyer flask	\$4.75		
LL-3022	Bulb, mini string	\$7.35			LK-0002K	Fabric Set	\$20.00		<u> </u>
LL-3021	Bulb, red	\$4.90			LL-3010	Fabric, black 4"x5"	\$0.15		<u> </u>
EL-1317	Bulb, socket	\$1.00			LL-3011	Fabric, white 4"x5"	\$0.15		
AT-1113	Butane lighter	\$4.20			LL-2006	Fan	\$8.30		<u> </u>
EL-1318	Buzzer	\$6.25			EL-1322	Feathers, pkg	\$2.50		

Replacement Items, Listed Alphabetically



Catalog #	Item	Price Each	#	Total Cost	Catalog #	Item	Price Each	#	Total Cost
LK-0022	Filter paper	\$0.25			GR-1413	Lead shot, pkg	\$1.70		
LG-0512	Filter paper, pkg	\$3.25			GR-1408K	Lead Weight Kit	\$7.35		
LL-1004	Filters, blue	\$0.25			LL-1011	Lemon extract	\$5.25		
LL-1006	Filters, green	\$0.25			AT-1115	Lime water (calcium oxide, 20 gm)	\$3.55		
LL-1008	Filters, red	\$0.25			AT-1116	Lime water decanter (1 qt container)	\$3.20		
LL-1009	Fishing line (20-60 lbs.)	\$3.65			EL-1344	Litmus paper, blue	\$2.50		
LK-0005	Flannel fabric, 6"x6"	\$0.50			EL-1345	Litmus paper, red	\$2.50		
EL-1331	Flannel fabric, 8"X8"	\$0.50			MG-1803	Lodestone	\$0.80		
LL-3012	Flashlight	\$7.90			AE-1204	Magnesium turning, 25 gm	\$11.00		
LG-0513	Flour	\$1.75			MG-1808	Magnet, bar pair	\$4.30		
EL-1327	Fluorescent tube	\$3.15			MG-1809	Magnet, disc	\$0.35		
LL-3043	Foam board, 4"x5"	\$.50			MG-1810	Magnet, horseshoe	\$6.30		
LL-1010	Food coloring, pkg of 4	\$5.25			MG-1801	Magnet, wand	\$3.25		
EL-1343K	Force Balance Kit	\$2.20			MG-1816	Magnetic ball	\$.20		
EL-1350	Force Balance Supplement	\$17.00			LL-1012K	Magnetic Kit	\$4.15		
MC-1910	Forceps, plastic	\$0.50			LK-0041	Magnetic Letters Set	\$4.14		
MC-1910	Forceps, sharp	\$1.25			LK-0038	Magnifying lens	\$1.50		
LG-0518	Fork, plastic	\$0.30			LG-0548	Magniny ying tens Map pins, bx	\$2.00		
LW-0104	Funnel	\$0.50			MC-1902		\$0.10		
GR-1402K					LG-0547	Marble, clear glass			
	Funny Floater Kit	\$2.80				Masking tape, roll	\$3.95		
EL-1330	Fur fabric, 8"X8"	\$0.50			LL-3037	Materials Set	\$1.85		
LL-3040	Geometric shapes set	\$14.65			LW-0131	Measuring cup	\$1.85		
LW-0129	Goggles	\$2.80			AE-1205	Measuring spoon set	\$4.00		
MC-1901	Glass pebble, clear	\$0.10			LK-0018	Measuring tape	\$1.25		
LW-0126	Glass rod	\$3.10			LK-0013K	Medical Kit, K	\$27.00		
LK-0025	Glossy paper, 4"X5"	\$0.25			LL-1013K	Medical Kit, l	\$19.50		
LW-0120	Gloves, vinyl, 10 pr	\$4.60			SMB-1703	Mexican black rock	\$0.50		
LW-0129	Goggles	\$2.99			MC-1908	Microscope coverslips, plastic, bx of 100	\$4.25		
LW-0116	Graduated cylinder, 10 mL glass	\$4.50			MC-1904	Microscope-frost slides, bx of 72	\$11.55		
LW-0105	Graduated cylinder, 100 mL PMP	\$7.00			MC-1905	Microscope-well slides, bx of 10	\$15.75		
LW-0118	Graduated cylinder, 50 mL PMP	\$6.75			LG-0533	Mineral oil	\$5.75		
SGR-1702	Granite rock	\$0.50			MG-1806	Mini-compass set	\$3.15		
MC-1906	Graticule	\$6.20			LL-1015	Moth ball identifying sheet	\$0.25		
MC-1907	Ground black pepper, vial	\$0.75			LL-1014K	Moth Ball Kit	\$1.25		
LL-3001	Guar gum, 25 g	\$5.65			LL-1016	Moth ball	\$0.50		
LL-2007	Halogen light, 500 W	\$20.95			LG-0526	NaCl, 0.15M	\$3.50		
AT-1106	Hot plate	\$60.00			AE-1206	Needle, pkg of 5	\$1.30		
LK-0011	Hula hoop	\$2.25			LK-0026	Newspaper, 4"X5"	\$0.25		
LL-2008	Humidity gauge	\$7.25			LL-1017	Paint brushes, pkg 10	\$3.15		
LG-0515	Hydrogen peroxide, 2% 16 oz	\$0.75			LG-0550	Paper clips jumbo, bx of 100	\$1.00		
LG-0546	Index cards, 3X5 pkg	\$1.45			LG-0517	Paper clips small, bx of 100	\$1.00		
MG-1811	Iron filings envelop	\$4.50			LK-0019K	Paper Set	\$10.00		
AE-1203	Iron filings, 1 lb	\$5.25			LK-0027	Paper towel, 4"X5"	\$0.25		
LG-0516	Isopropyl alcohol, 16 oz	\$1.00			AE-1209	Paraffin	\$3.95		
LW-0106	Jar, 4" X 7" with lid	\$1.75			LK-0028	Pattern Blocks	\$18.75		
EL-1342	Juicer	\$4.20			LG-0534	Pencil lead	\$2.30		
LW-0117	Kim Wipes, bx	\$3.50			MC-1909	Peppercorns, vial	\$0.75		
LL-1031	Klondiker Building Blocks, 84 pc	\$34.50			GR-1403	Pine plug	\$0.10		
LG-0519	Knife, plastic	\$0.15			LK-0035	Ping pong ball	\$0.10		
LG-0019	Knit fabric, 6"x6"	\$0.50			SPM-1701	Pink marble rock	\$0.50		
LK-0010 LW-0110	Lab stand base & rod								
		\$8.15			LW-0138	Pipet, 1 mL plastic	\$0.50		
LW-0119	Lab stand clamp	\$5.50			GR-1405	Plastic piece	\$0.50		
LW-0111	Lab stand ring	\$4.50			LW-0127	Plastic rod	\$2.85		
AE-1212	Laboratory scoop	\$1.10			LK-0029	Playschool Formfitters	\$12.50		
LL-3013	Laser pointer	\$20.95			EL-1332	Polyester fabric, 8"X8	\$0.50		
LG-0536	Latex glue, 500 mL	\$10.00			AT-1107	Post-it notes, pkg	\$1.25		



Replacement Items, Listed Alphabetically

Catalog #	Item	Price Each	#	Total Cost	Catalog #	Item	Price Each	#	Total Cost
LL-2010	Poster board, black	\$1.30			LG-0530	Stirrer, plastic	\$0.05		
SP-6008	Poster, atom	\$11.50			LL-2018	Stop watch	\$10.42		
SP-6001	Poster, periodic table	\$10.50			LW-0125	Stopper	\$1.00		
LL-2006	Potting soil, 10 qt	\$5.80			LW-0108	Stopper, one-holed	\$0.80		
LL-3032	Presentation board, black	\$23.00			LW-0109	Stopper, two-holed	\$0.80		
LL-3023	Prism	\$12.50			WH-1602	Storage container	\$10.00		
AT-1105	Pump	\$10.50			WH-1600	Storage tower, 3 drawer	\$32.00		
AT-1108	PVC Tubing OD 3/16" ID 1/8", 2 ft	\$0.25			WH-1604	Storage tower, 5 drawer	\$42.00		
LL-1018	Q-tips, bx of 300	\$2.10			WH-1601	Storage tower, 8 drawer	\$62.00		
SQR-1700	Quartz rock	\$.10			LG-0532	Straw	\$0.05		
QC-5000K	Quick Cards Set	\$325.00			LG-0503	Straws, carnival, bx	\$1.05		
LL-1019	Radiometer	\$10.40			LL-1028	String, 420 ft	\$4.15		
LL-2011	Rain gauge	\$4.15			LL-3035	Styrofoam ball, 2"	\$0.85		
LK-0006	Rayon fabric, 6"x6"	\$0.50			LL-3036	Styrofoam ball, 4"	\$2.00		
EL-1315	Resistor	\$1.00			LG-0537	Sugar packets, bx of 50	\$1.90		
MC-1911	Rice, vial	\$0.75			EL-1314	Switch	\$3.25		
LL-1020	Rock & Mineral Set	\$13.75			AT-1114	Syringe, 50mL	\$2.05		
LK-0032K	Rock Pattern Set	\$12.50			LL-2004	Table clamp	\$4.20		
LL-2001	Rock Sorting Set	\$4.20			LL-2019	Tape measure, 100 ft	\$20.95		
LG-0523	Rubber band, pkg of 50	\$2.50			EL-1335	Tennis ball	\$5.00		
LL-3024	Ruler, 12"	\$0.55			LW-0121	Test tube brush	\$1.10		
EL-3024	Ruler, 6"	\$0.55			LW-0121		\$1.40		
						Test tube clamp	•		
EL-1306	S hook, 1 1/2"	\$0.25			LW-0123	Test tube rack (25 mm holes)	\$2.95		
EL-1340	S hook, 1"	\$0.15			LW-0134	Test tube, 10 mL	\$0.40		
LG-0520	Salt	\$0.75			LW-0133	Test tube, 20 mL (with cap LL-0134)	\$0.30		
LL-1021K	Sand Paper Set	\$5.00			LW-0124	Test tube, 30 mL glass	\$0.80		
GR-1414	Sand, 2 lb	\$2.00			LW-0132	Test tube, 50 mL	\$1.00		
LL-1023	Sandpaper, 100 grit	\$0.25			LK-0017	Thermometer covers, bx of 10	\$2.05		
LL-1024	Sandpaper, 120 grit	\$0.25			AT-1109	Thermometer, 4"	\$1.00		
LL-1022	Sandpaper, 80 grit	\$0.25			AE-1207	Thermometer, 12" immersion	\$18.90		
LL-1025	Sandpaper, fine	\$0.25			LL-3025	Thermometer, candy	\$8.35		
LG-0502	Sandwich bags, bx of 50	\$4.00			LL-2012	Thermometer, classroom	\$5.75		
GR-1415	Scale, spring 1000 g	\$8.75			LK-0016	Thermometer, digital	\$5.20		
GR-1416	Scale, spring 250 g	\$8.75			LL-2013	Thread	\$2.30		
LL-1026	Shovel	\$4.20			AT-1110	Tin can	\$6.25		
EL-1324	Shredded aluminum foil	\$1.00			MC-1914	Tincture of iodine, bottle	\$2.10		
EL-1325	Shredded paper	\$1.00			LL-2014	Tissue paper, pkg	\$4.20		
EL-1329	Silk fabric, 8"x8"	\$0.50			LG-0549	Toilet paper, 1000 sht roll	\$1.05		
LK-0003	Silk fabric, 6"x6"	\$0.50			LG-0504	Toothpicks, bx	\$1.05		
LL-3034	Skewer	\$0.05			LK-0023	Tracing paper, 4"X5"	\$.25		
EL-1319	Socket	\$2.25			LL-1029	Tree Rings Set	\$5.00		
LG-0521	Sodium bicarbonate	\$1.05			AT-1111	Valve	\$.75		
LG-0522	Sodium carbonate	\$5.25			LK-0001	Velcro dot, 1/2"	\$0.05		
WH-1603	Sorting board	\$1.00			LK-0012	Velcro dots, 1/2" 1 yd strip	\$4.20		
LK-0033	Sorting hoop	\$0.50			LK-0040	Velcro hook, 1/2"	\$.05		
LL-1027	Sorting shells	\$16.70			LK-0040	Velcro hook, 1/2" 1 yd strip	\$4.20		. <u></u>
MC-1913	Specimen slide set, bx of 25	\$51.45			LK-0040	Velvet fabric, 6"x6"	\$.50		
LK-0037	Spider	\$0.25			LW-0107	Vial, glass	\$.50		
LL-3002	Spray bottle	\$0.25			LG-0525	Viai, glass Vinegar, 16 oz white	\$.50 \$1.45		[
LK-0030	Squeeze light	\$3.80			EL-1336	Voltmeter	\$37.75		
EL-1326K	Static Electricity I Kit	\$13.25			MG-1804	Washers, 1/4"	\$0.05		
EL-1348K	Static Electricity II Kit	\$12.00			LK-0024	Wax paper, 4"X5"	\$0.25		
MG-1815	Steel bolt, 1/4" x 8"	\$1.00			LG-0524	Wax paper, roll	\$3.00		
MG-1813K	Steel Items Kit	\$7.70			LL-2015	Weather Watcher paper	\$1.75		
EL-1334	Steel wool pad	\$0.75			LK-0034K	Web Kit	\$9.75		
EL-1349	Steel wool, pkg	\$5.50							
LK-0014	Stethoscope	\$12.25							

Replacement Items, Listed Alphabetically

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Catalog #	Item	Price Each	#	Total Cost	Catalog #	Item	Price Each	#	Total Cost
GR-1412	Weight, 1 oz	\$0.25			EL-1337	Wire, 25 ft	\$2.75		
GR-1411	Weight, 2 oz	\$0.50			AE-1208	Wooden splint	\$0.05		
GR-1410	Weight, 4 oz	\$1.05			LK-0004	Wool fabric, 6"x6"	\$0.50		
GR-1409	Weight, 8 oz	\$2.15			EL-1328	Wool fabric, 8"X8"	\$0.50		
GR-1406	Wheaton jar	\$2.00			LK-0036	Yarn, skein	\$1.85		
SWM-1705	White marble rock	\$0.50			EL-1339	Zinc electrode 1/2" X 2"	\$0.50		
SWM-1706	White marble, pkg of 50	\$2.50			LL-1030	Zinnia seeds	\$3.15		
EL 1304	Wire, 12"	\$0.15							



The SymmetryScience[™]* Program



It's not just teaching science, It's using science to teach.