

INSTRUCTION MATERIALS SURVEY						
ARENA ELEMENTARY SCHOOL 2023-2024						
PRIMARY GRADES						
Grade Level	Enrollment	ELA/ELD	Mathematics	Social Science	Science	STEM Science *
		McGraw Hill	McGraw Hill	Scott Foresman	Harcourt	Excelerate Learning
		<u>Wonders</u>	<u>My Math</u>	<u>History/Social Science</u>	<u>California Science</u>	<u>STEMscope</u>
		Copyright 2017	Copyright 2013	Copyright 2006	Copyright 2008	2023
		Board Adoption 05/11/2016	Board Adoption 05/11/16	Board Adoption 10/16/13	Board Adoption 06/21/2007	Pilot Workbook and Virtual
Number of Materials	Number of Materials	Number of Materials	Number of Materials			
K -Rms. 4 & 5	18	29	29	29		
1 - Rms. 6 & 9	33	35	35	29	29	
2 - Rm. 8	27	26	26	26		
				Studies Weekly (consumables integrated with online)		
				Board Adoption 11/07/2018 (grades 4-6) 06/07/23 (grade 3)		
3 - Rm. 7	28	32	37	36	24	
4 - Rm. 10	19	21	20	20		
5 - Rm. 11	27	30	30	24	24	
6	21					

MIDDLE SCHOOL GRADES						
Grade Level	Enrollment	ELA	Mathematics	Social Science	Science	STEM Science *
		McGraw Hill - Bookhead Learning	McGraw Hill	TCI Digital License	Prentice Hall	Excelerate Learning
		<u>Study Sync California</u>	<u>CA Math-Glenco 1-3</u>	<u>History Alive Program</u>	<u>California Science Explorer</u>	<u>STEMscope</u>
		Copyright 2023	Copyright 2015	Copyright 2015		
		Board Adoption 06/07/2023	Board Adoption 05/11/16	Board Adoption 10/16/13	Board Adoption 05/17/07	Pilot Workbook and Virtual
Number of Materials	Number of Materials	Number of Materials	Number of Materials			
6	21	30	30	29*	31	
7	22	30	30	22*	24	
8	23	30	30	28*	28	

* Arena Elementary is Piloting STEMscopes in grades 1, 5, and 8. Each student has a workbook and virtual license

Each ELD student has a book, and/or a workbook, and/or a virtual license to use in class and to take home

INSTRUCTIONAL MATERIALS SURVEY
POINT ARENA JOINT UNION HIGH SCHOOL **2023-2024**

	NAME OF TEXTBOOK	Number of Materials	Students per Period	Number of Students	Date Board Adopted	Copyright Date	Funding Source
English 9 Krogel	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting with Literature</i>	100	P.1 - 18 P.2 - 15	33	06/07/23	2021	General Fund, Lottery
English 9 Krogel	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature</i> , Writing & Grammar Workbook	50	P.1 - 18 P.2 - 15	33	06/07/23	2021	General Fund, Lottery
English 10 Krogel	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature</i>	100	P.5 - 5 P.6 - 9	14	06/07/23	2021	General Fund, Lottery
English 10 Krogel	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature</i> , Writing & Grammar Workbook	50	P.5 - 5 P.6 - 9	14	06/07/23	2021	General Fund, Lottery
English 10 Foreman	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature</i>	50	P.1 - 15 P.2 - 6	21	06/07/23	2021	General Fund, Lottery
English 10 Foreman	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature</i> , Writing & Grammar Workbook	50	P.1 - 15 P.2 - 6	21	06/07/23	2021	General Fund, Lottery
English 11 Foreman	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature</i>	100	P.4 - 14 P.5 - 8 P.6 - 6	28	06/07/23	2021	General Fund, Lottery
English 11 Foreman	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature</i> , Writing & Grammar Workbook	50	P.4 - 14 P.5 - 8 P.6 - 6	28	06/07/23	2021	General Fund, Lottery
English 12 Foreman	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature: British Traditions</i>	50	P.7 - 9	9	06/07/23	2021	General Fund, Lottery
English 12 Foreman	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature: British Traditions</i> , Close Reading Workbook	50	P.7 - 9	9	06/07/23	2021	General Fund, Lottery
English 12 Foreman	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature: British Traditions</i> , Differentiated Instruction Workbook	50	P.7 - 9	9	06/07/23	2021	General Fund, Lottery
English 12 Foreman	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature: British Traditions</i> , Writing & Grammar Workbook	50	P.7 - 9	9	06/07/23	2021	General Fund, Lottery
English 12 Krogel	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature: British Tradition</i>	50	P.4 - 14	14	06/07/23	2021	General Fund, Lottery
English 12 Krogel	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature: British Traditions</i> , Close Reading Workbook	50	P.4 - 14	14	06/07/23	2021	General Fund, Lottery
English 12 Krogel	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature: British Traditions</i> , Differentiated Instruction Workbook	50	P.4 - 14	14	06/07/23	2021	General Fund, Lottery
English 12 Krogel	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature: British Traditions</i> , Writing & Grammar Workbook	50	P.4 - 14	14	06/07/23	2021	General Fund, Lottery

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ELD Krogel	English 3D, Course 3, <i>Language & Writing Portfolio</i> , Houghton, Mifflin, Harcourt	50	P.3 - 6 P.7 - 3	9	06/07/23	2021	General Fund, Lottery
ELD Krogel	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting with Literature</i> , Close Reading Workbook	50	P.3 - 6 P.7 - 3	9	06/07/23	2021	General Fund, Lottery
ELD Krogel	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature</i> , Differentiated Instruction Workbook	50	P.3 - 6 P.7 - 3	9	06/07/23	2021	General Fund, Lottery
Targeted Intervention Asiano	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting with Literature</i> , Close Reading Workbook	100	P.1 - 12 P.3 - 9	21	06/07/23	2021	General Fund, Lottery
Targeted Intervention Asiano	Carnegie Learning, Inc., Mirrors & Windows, <i>Connecting With Literature</i> , Differentiated Instruction Workbook	150	P.1 - 12 P.3 - 9	21	06/07/23	2021	General Fund, Lottery
Algebra I Asiano	Algebra 1, Edmentum, <i>Plato, Courseware</i> Asynchronous - Learner Led	1:1 Technology	P.5 - 1	1	Pilot	2023	General Fund, Lottery
Algebra I Randolph	Algebra 1, Edmentum, <i>Plato, Courseware</i> Asynchronous - Learner Led	1:1 Technology	P.2 - 1	1	Pilot	2023	General Fund, Lottery
Algebra I Swain	Math Book Algebra 1, Carnegie Learning, 2022	50	P.4 - 20 P.5 - 13	33	9/16/20	2018	General Fund, Lottery
Algebra IA Swain	Math Book Algebra 1, Carnegie Learning, 2022	50	P.2 - 14 P.7 - 12	26	9/16/20	2018	General Fund, Lottery
Algebra II Swain	Math Book Algebra 2, Carnegie Learning 2022	40	P.1 - 24	24	9/16/20	2018	General Fund, Lottery
Geometry Swain	Math Book Geometry, Carnegie Learning 2022	40	P.3 - 13	13	9/16/20	2008	General Fund, Lottery
Financial Math A&B Asiano	Financial Mathematics A&B Edmentum, <i>Plato, Courseware</i> Asynchronous - Learner Led	1:1 Technology	P.7 - 5	5	Pilot	2023	General Lottery Fund
Financial Math A&B Randolph	Financial Mathematics A&B Edmentum, <i>Plato, Courseware</i> Asynchronous - Learner Led	1:1 Technology	P.1 - 9 P.3 - 3	12	Pilot	2023	General Lottery Fund
Pre-Calculus Miller	Pre-Calculus, UC Scout, Asynchronous - Facilitated	1:1 Technology	P.4 - 2	2	Pilot	2023	General Fund, Lottery
Calculus A/B Feliz	<i>Calculus A/B</i> , UC Scout Asynchronous - Facilitated	1:1 Technology	P.1 - 4	4	Pilot	2023	General Fund Lottery
Chemistry Cole	Savvas Learning Company, LLC, 2021 <i>California Experience Chemistry in the Earth System</i>	25	P.6- 5	5	04/08/20	2021	General Fund, IMF Lottery
Earth Science Asiano	Earth Science, Edoptions Virtual Academy, <i>Plato Courseware</i> , Asynchronous - Learner Led	1:1 Technology	P.7- 3	3	Pilot	2023	General Fund Lottery
Earth Science Randolph	Earth Science, Edoptions Virtual Academy, <i>Plato Courseware</i> , Asynchronous - Learner Led	1:1 Technology	P.1- 1	1	Pilot	2023	General Fund Lottery

	NAME OF TEXTBOOK	Number of Materials	Students per Period	Number of Students	Date Board Adopted	Copyright Date	Funding Source
Physics Cole	Pearson, <i>Physics</i> ISBN 13:978-0-13-137115-6	18	P.5 - 3	3	11-7-18	2014	General Fund, Lottery
AP Comp Sci Cole	Code.org Learning Company, LLC, 2023 https://studio.code.org/courses	1:1 Technology	P.7 - 4	4	Pilot	2023	General Fund, Lottery
C-STEM Technology Mazza	Integrated STEM Environmental and Biological Sciences – <i>Sonoma State Curriculum on-line</i>	1:1 Technology	P.4- 19 P.5- 16	35	2019	2022	General Fund, Lottery
Marine Sci Tech Mazza	Integrated STEM Environmental and Biological Sciences – <i>Sonoma State Curriculum on-line</i>	1:1 Technology	P.1 – 13 P.7 - 17	30	2019	2022	General Fund, Lottery
Biology Mazza	Pearson <i>Biology</i> <i>California the Living Earth</i>	40	P.2 - 13 P.6 - 17	30	11/13/19	2020	General Fund, Lottery
Biology Asiano	Pearson <i>Biology</i> <i>California the Living Earth</i>	10	P.4 - 1	1	11/13/19	2020	General Fund, Lottery
Biology Randolph	Biology, Edoptions Virtual Academy, <i>Plato Courseware</i> , Asynchronous - Learner Led	15	P.1 - 2 P.2 - 2 P.3 - 6	10	11/13/19	2020	General Fund, Lottery
World History Asiano	World History, Edoptions Virtual Academy, <i>Plato</i> <i>Courseware</i> , Asynchronous - Learner Led	1:1 Technology	P.4 - 2	2	Pilot	2023	General Fund, Lottery
World History McFarland	McGraw Hill , <i>Impact California Social Studies, World</i> <i>History, Culture, & Geography, The Modern World</i>	37	P.4 - 16 P.5- 19	35	8/8/18	2019	General Fund, Lottery
AP Human Geography McFarland	McGraw Hill, AP Human Geography	17	P.3 - 12	12	10/14/15	2013	General Fund, Lottery
US History Asiano	US History, Edoptions Virtual Academy, <i>Plato Courseware</i> , Asynchronous - Learner Led	1:1 Technology	P.4 - 3	3	Pilot	2023	General Fund, Lottery
US History McMahon	McGraw Hill, <i>Impact California Social Studies: United</i> <i>States History and Geography Continuity and Change</i>	55	P.6 - 13 P.7 - 15	28	8/18/21	2019	General Fund, Lottery
Civics McMahon	Pearson, <i>American Government</i>	37	P.2- 17	17	4/21/05	1999	General Fund, Lottery
Ethnic Studies McMahon	CDE Ethnic Studies Model Curriculum	1:1 Technology	P.4 – 9 P.5 - 12	22	Pilot	2023	General Fund, Lottery
Economics McCammon	McGraw Hill, <i>Principles of Economics</i>	37	P.2 - 15	15	6/7/2023	2019	General Fund, Lottery
Economics Randolph	Economics, Edoptions Virtual Academy, <i>Plato Courseware</i> , Asynchronous - Learner Led	1:1 Technology	P.3 - 2	2	Pilot	2023	General Fund, 20

							Lottery
	NAME OF TEXTBOOK	Number of Materials	Students per Period	Number of Students	Date Board Adopted	Copyright Date	Funding Source
Spanish I G. Asiano	Houghton Mifflin Harcourt, <i>Avancemos! Textbooks and Workbooks</i>	34	P.3 - 10 P. 7 - 23	33	06/17/15	2013	General Fund, Lottery
Spanish II G. Asiano	Houghton Mifflin Harcourt, <i>Avancemos! Textbooks and Workbooks</i>	38	P.2 - 19 P.4 - 9	28	06/17/15	2013	General Fund, Lottery
Spanish II Asiano	Spanish II, Edoptions Virtual Academy, <i>Plato Courseware</i> , Asynchronous - Learner Led	1:1 Technology	P.5- 2	2	Pilot	2023	General Fund Lottery
Spanish III G. Asiano	Houghton Mifflin Harcourt, <i>Avancemos! Textbooks and Workbooks</i>	24	P.1 - 2 P.6 - 12	14	06/17/15	2013	General Fund, Lottery
9 th Grade P.E./Health Martins	Pearson, <i>Health</i>	33	P.6 - 15 P.7- 15	30	10/16/13	2014 2010	General Fund Lottery

- English 3D, Course 3, *Language & Writing Portfolio*, Houghton, Mifflin, Harcourt
- Elayn Martin-Gay *Basic College Mathematics, with Early Integers*, 4th Edition; Pearson, copyright 2020
- Impact, California Social Studies- *Principles of Economics*; McGraw Hill, copyright 2019
- Impact, California Social Studies- *Principles of American Democracy*; McGraw Hill, copyright 2019
- Emerge, *Realistic Life*, Saddleback, copyright 2014
- Vocabulary Workshop, Tools for Excellence*, Levels D-G Sadlier, copyright 2022

Science Lab

Point Arena High School

9/6/2023

Number	Item
90	Aluminum Weighing Dishes
6	Beaker 600ml
9	Beaker Tongs
14	Beakers 1000ml
21	Beakers 100ml
10	Beakers 150 ml
10	Beakers 250ml
6	Beakers 400 ml
13	Beakers 50ml
1	Bell Jar with Vacuum Plate
8	Binocular Microscopes
6	Buchner Funnels
5	Bunsen Burner hoses
15	Bunsen Burners
1	Bupper Car Kit
6	Burret Tube Clamps
16	Burret Tubes
5	Calorimeters
100	Capillary Tubes - 1.5-1.8 x 10 mm
6	Ceramic Curcibles with lids
12	Ceramic Evaporation Dishes
8	Ceramic Motars and Pestels
6	Ceramic Trianagles
25	Chemical Resistant Aprons
200+	Corks
8	Digital Thermometers
5	Dissection Kits
20	Dissection Trays
2	Drying Chambers
1	Electric Bell for Vacuum Jar
1	Erlymeyer Flask 300ml
1	Erlymeyer Flask 50 ml
33	Erlymeyer Flasks 125 ml
6	Erlymeyer Flasks 500ml

14	Eye Droppers
5	Faucet Vacuum Adapters
6	Flash lights
9	Flint Strikers
1	GDX Dynamics System Kit
25	Glass Pipets 1ml
11	Glass Pipets 25ml
26	Glass Pipets 2ml
3	Glass Specimen Dishes
28	Glass Stirring Rods
6	Graduated Cylinders 100ml
12	Graduated Cylinders 10ml
6	Graduated Cylinders 250ml
15	Graduated Cylinders 25ml
6	Graduated Cylinders 500ml
25	Graduated Cylinders 50ml
8	Heat Proof Gloves
1	Helium Discharge Tube
6	Hot Plates
1	Hydrogen Discharge Tube
3 rolls	Hydroion pH paper - 1 to 14
1 roll	Hydroion pH paper - 4.5 to 7.5
3	Large Metal Forceps
6	Magnetic Stirrers
1	Mercury Discharge Tube
11	Metal Forceps
6	Metal Rings (for ring stands) Large
6	Metal Rings (for ring stands) Medium
6	Metal Rings (for ring stands) Small
17	Metal Spatulas
4	Metal Test Tube Racks
10	Meter Sticks
1	Metrologic Neon Laser
24	Micro Calorimeters
10	Monocular Microscopes (Many need
1	Motion Detector - Vernier
1	Motion/Gravity Rail
1	Neon Discharge Tube
5	Nichrome Inoculation Loops

5 boxes	Nitrile gloves - various sizes
2	Ohaus Navigator Scales
1	Ohaus Scout Scale
1	Oxygen Discharge Tube
4	Packages of Filter paper, 55mm, 90 mm
8	Pipet Bulbs Large
15	Pipet Bulbs Small
500	Plastic Beral-type Pipets
2	Plastic Forceps
40	Plastic Funnels
15	Plastic Micro-tip Beral-type Pipets
3	Plastic Petri Dishes - pack of 20
14	Plastic Reaction Trays
19	Plastic Test Tube Racks
600	Plastic Weighting Boats
36	Protective Goggles
6	Ring Stand Clamps
8	Ring Stands
4	Rubber Scoops
100+	Rubber Stoppers
26	Safety glasses
1	Sensor Cart Accessory Kit - Vernier
1	Skeleton Showing Muscle Attachments
12	Spectra Scopes
1	Spectrum Tube Power Supply
6	Test Tube Tongs
10	Test Tube-Thick Wall-12mm x 120 mm
6	Test Tubes 10mm x 100mm
36	Test Tubes 12mm x 100mm
45	Test Tubes 13mm x 75mm
30	Test Tubes 15mm x 150mm
62	Test Tubes 18mm x 150mm
21	Test Tubes 25mm x 200 mm
24	Thermometers, -20 to 110 C
3	Triple Beam Balances
3	Triple Beam Pan Balances
5	Tuning Forks
6	Vacuum Flasks
3	Vacuum Pumps
1	Vernier Projectile Launcher

1	Vernier Lab Quest Mini Model 2
3	Volumetric Flask 250ml
1	Volumetric Flask 500ml
8	Volumetric Flasks 100ml
6	Wash Bottles
5	Watch Glasses
1	Water Electrolysis Kit
1	Water Vapor Discharge Tube
6	Wire Guaze with Ceramic Centers

Chemical List Point Arena High School
9/5/23
1,1,1 Trichloroethane
1,2,3 Benzotriazole
Aceto-Orcein Stain
Acetone
Aluminum foil
Aluminum Gradular
Aluminum metal powder
Aluminum Oxide
Ammonia
Ammonium Hydroxide
Amyl acetate
Baking Soda, Sodium bicarbonate
Barium Chloride
Barium Hydroxide
Benedict's solution
Bleach
Boiling Stones
Butane Fuel
Calcium carbonate
Calcium chloride
Calcium Flouride
Calcium hydroxide
Calcium oxide
Calcium oxide
Calcium Sulfate
Carolina Nurtient Agar
Cetyl Acid
Charcoal
Citric acid
Copper II Chloride
Copper II Chloride Solution 2M
Copper II Sulfate
Copper II Sulfate Solution 2M
Copper Wire
Copper Sulfate
Cupric Carbonate

Cupric nitrate solution 0.5M
Deisel
Dextrose
Dodecyl Acid
Ethyl Acetate
Ethyl alcohol
Ethylene Glyocl
Food Coloring - Assorted Colors
Glucose
Glycerin
Hexanes
Hubbard TLC Solution A
Hubbard TLC Solution B
Hydrochloric Acid
Iodine
Iron (II) oxide
Iron powder
Iron(III) Oxide
Isopropyl alcohol
Lauric Acid
Lead nitrate solution
Lithium Chloride
Magnesium Nitrate solution 0.1M
Magnesium ribbon
Malachite Green solution
Mars Black Acrylic Polymer
Methy Alcohol Anhydrous
Nitric Acid
Painter's Solvent
Paraffin
Potassim Bromide
Potassium Aluminum Sulfate
Potassium Chloride
Potassium Hydroxide Solution 15%
Potassium iodine solution
Potassium nitrate solution
Potassium sodium tartrate
Salicylic Acid
Sand (fine)
Silver Nitrate
Sodium bisulfate

Sodium Borate
Sodium Bromide
Sodium Carbonate
Sodium Chloride
Sodium fluoride
Sodium hydroxide
Sodium Iodide
Sodium metal
Sodium nitrate solution
Sodium nitrite
Sodium Sulfate
Sodium Sulfate Solution 1M
Sodium Thiosulfate
Strontium Chloride
Sucrose
Sulfur
Sulfuric Acid
Toluidine Blue
Vegetable oil
Vinegar (Acetic Acid)
Wards Preserved Materials Specimen Conditioner
Zinc acetate
Zinc Metal
Zinc Nitrate Solution 2 M
Zinc Sulfate

Materials List

9781418325947 | PF9002

SAVVAS
LEARNING COMPANY

FLINN
SCIENTIFIC

California Assessment Materials Kit

Look For...

Made up of 3 brown corrugate boxes... each BROWN box has a sticker on it noting the ISBN above, and "Box [x] of 3"

3 brown boxes

Divided out in the 3 brown corrugate boxes are 16 smaller white boxes... each WHITE box has a sticker noting its "Flinn Kit Number" (e.g. PF2001 Energy Densities of Organic Fuels)

16 white boxes

BOX 1 of 3

9 Lab Kits included

Materials inside each PF white box

PF2004

Climate Change And The Carbon Cycle

Bromothymol blue (BTB) indicator solution, 100 mL
Corks, size #3, package of 100
Pipets, Beral-type, graduated, package of 20
Straws, package of 50
Test tubes, 16 mm×125 mm, 50

PF2005

Electricity And Wind Energy

Bamboo skewers, 100
Caps, 2
Cork, size 11, 30
DC Motor, 1.5 V, 2
Sandpaper, 9 in. × 11 in.
Cardboard sheets, 8.5 in. x 8.5 in., 8
Foam sheets, 8.5 in. x 8.5 in., 12
Manila folders, 4
Polystyrene sheet, 12 in. × 12 in., 4

PF2009

Investigate The Rock Cycle

Rock Cycle Dice templates, 10
Station signs, 10
Food coloring, red, 15 mL
Glass tubing, 5 in.
Glass tubing, 2½ in.
Rubber stopper, 2-hole

PF2024

Qualitative Analysis And Chemical Bonding

Adipic acid, 20 g
Aluminum granules, 20 g
Calcium carbonate, powder, 25 g
Dodecyl alcohol, 20 g
Glycine, 20 g
Graphite, 20 g
Iron oxide, 20 g
Iron powder, 20 g
Potassium nitrate, 20 g
Salicylic acid, 20 g
Silicon lumps, 20 g
Sodium carbonate, anhydrous, 20 g
Copper(II) sulfate, pentahydrate, 25g
Dextrose monohydrate, 20 g
Ethyl alcohol, 250 mL
Hexane, 250 mL
Hydrochloric acid solution, 0.1 M, 250 mL
Paraffin wax, 20 g
Sodium hydroxide solution, 0.1 M, 250 mL
Zinc, 20 g
Aluminum dish, 12
Test tubes, 60

PF2030

Road Deicers

Calcium chloride, 120 g
Silicon dioxide, 200 g
Sodium chloride, 120 g

PF2042	Identify Evidence Of Chemical Reactions	Acetic acid, 2 M, 1 L Calcium carbonate, 50 g Sodium bicarbonate, 50 g Sodium chloride, 40 g Sodium carbonate, 50 g Sucrose, 40 g Balloons, 12", 60 Funnel, powder, small Weighing dishes, 50
PF2046	The Stoichiometry Of Filling A Balloon	Acetic acid, 2 M, 750 mL Sodium bicarbonate, 170 g Balloons, 80 Weighing dishes, 60
PF2050	Enthalpy Of A Neutralization Reaction	Hydrochloric acid solution, 1.0 M, 1600 mL Sodium hydroxide solution, 1.0 M, 800 mL Sodium hydroxide flakes, 100 g Polystyrene cups, package of 30 Weighing dishes, 20
PF2079	Calcium Carbonate And Shell Production	Calcium carbonate (marble chips) CaCO ₃ , 70 g Hydrochloric acid solution, 6 M, 250 mL Hydrochloric acid solution, 2 M, 200 mL Petroleum jelly, foilpacks, 10 Syringe, 60 mL, 10 Syringe adapter, 10 Stopper, one-hole (to fit flask), 10
BOX 2 of 3	5 Lab Kits included	Materials inside each PF white box
PF2014	Evaluate Atomic Structure With Flame Tests	Calcium chloride, 50 g Potassium chloride, 50 g Sodium chloride, 50 g Strontium chloride, 50 g Avery labels, sheet of 80 Bingo chips, red, blue, yellow, and green, 120 each Construction paper, white, 15 sheets Energy level labels Filter paper, package of 60 Glue stick Wooden splints, package of 100
PF2037	Chemical Quantities	Basic copper carbonate, 50 g Copper(II) sulfate.pentahydrate, 25 g Hydrochloric acid solution, 2 M, 300 mL Sulfuric acid solution, 0.5 M, 120 mL Pipets, Beral-type, 40 Weigh dishes, 20
PF2074	Quantitative Analysis Of Acid Rain	Adipic acid, 20 g Nitric acid, 50 mL Phenolphthalein indicator solution, 100 mL Sodium hydroxide solution, 0.005 M, 100 mL Sulfuric acid, 20 mL
PF2020	Gravimetric Analysis Of Periodic Trends	Adipic acid, 20 g Aluminum granules, 20 g Calcium carbonate, powder, 25 g Dodecyl alcohol, 20 g Glycine, 20 g Graphite, 20 g Iron oxide, 20 g

		Iron powder, 20 g
		Potassium nitrate, 20 g
		Salicylic acid, 20 g
		Silicon lumps, 20 g
		Sodium carbonate, anhydrous, 20 g
		Copper(II) sulfate, pentahydrate, 25g
		Dextrose monohydrate, 20 g
		Ethyl alcohol, 250 mL
		Hexane, 250 mL
		Hydrochloric acid solution, 0.1 M, 250 mL
		Paraffin wax, 20 g
		Sodium hydroxide solution, 0.1 M, 250 mL
		Zinc, 20 g
		Aluminum dish, 12
		Test tubes, 60
PF2069	Reaction Rates And Equilibrium	Laboratory detergent, 200 g
		Hydrogen peroxide, 10% solution, 840 mL
		Hydrogen peroxide, 30% solution, 140 mL
		Sodium acetate trihydrate, 250 g
		Sodium iodide solution, 2 M, 105 mL
BOX 3 of 3	2 Lab Kits included	Materials inside each PF white box
PF2000	Measure Energy In Combustion Reactions	Ethanol, 95%, 500 mL
		Alcohol burner, 10
		Aluminum foil, roll
		Wood splints, package of 100
PF2057	Microhabitat In A Bottle	Aquarium gravel, 2.3 kg
		Bottles, 1 liter, 10
		Caps, 15
		Grass seed, bag, 2
		Soil, 8 lb bag
		Screens, nylon, 4 in. diameter, 10
		Wood skewers, bag of 100

Materials List

SAVVAS
LEARNING COMPANY

FLINN
SCIENTIFIC

9781418331764 | PF9003

California Experiences Materials Kit

Look For...

Made up of 10 brown corrugate boxes... each BROWN box has a sticker on it noting the ISBN above, and "Box [x] of 10"

10 brown boxes

Divided out in the 10 brown corrugate boxes are 76 smaller white boxes... each WHITE box has a sticker noting its "Flinn Kit Number" (e.g. PF2001 Energy Densities of Organic Fuels)

76 white boxes

BOX 1 of 10 3 Lab Kits included

Materials inside each PF white box

PF2051 The Thermodynamics Of Hand Warmers

Ammonium chloride, 350 g
Calcium chloride, 300 g
Sodium chloride, 300 g
Sodium hydroxide, 500 g
Polystyrene cups, 20
Weighing dishes, 50

PF2078 Analysis Of Buffer Solutions And Ranges

Acetic acid solution, 0.1 M, 1 L
Bromocresol green indicator solution, 0.04%, 75 mL
Congo red indicator, 0.1%, 150 mL
Hydrochloric acid, 6 M, 500 mL
Sodium acetate solution, 0.1 M, 1 L
Sodium hydroxide solution, 6 M, 500 mL
pH paper, narrow range, 3.0–5.5, roll
Toothpicks, box of 250

PF2085 Conservation Of Mass In Chemical Reactions Engineering Design Challenge

Acetic acid, 2 M, 750 mL
Sodium bicarbonate, 250 g
Balloons, 5", package of 50, 2
Weighing dishes, 20

BOX 2 of 10 4 Lab Kits included

Materials inside each PF white box

PF2097 Design A Green Roof Engineering Design Challenge

Alfalfa seed, 1 oz package
Barley seed, 1 oz package
Construction paper, black, 20 half sheets
Foam pieces, 8 in. x 8 in., 20
Foam pieces, 8 in. x 9 in., 20
Grass seed, 4 oz package
Mustard seed, 1 oz package
Oat seed, 1 oz package
Plastic container
Soil, 3.6 kg bag, 2
Toothpicks, box of 250

PF2033 Melt Ionic and Covalent Compounds

Acetic acid, glacial, 70 mL
Ammonium acetate, 100 g
Sodium acetate, anhydrous, 60 g
Sodium chloride, 100 g
Weighing dishes, 30

PF2093 An Empirical Formula Challenge Engineering Design Challenge

Aluminum wire, 50 ft
Copper(II) Chloride, 2 g
Weighing dishes, 20

PF2099 Design A Natural Ph Indicator Engineering Design Challenge

Acetic acid, 0.1 M, 100 mL
Bromthymol blue, 0.04%, 35 mL
Methyl orange, 0.1%, 35 mL
Sodium bicarbonate, 0.1 M, 100 mL
Sodium carbonate, 0.1 M, 100 mL
Sodium phosphate, monobasic, 0.1 M, 100 mL
Thymol blue, 0.04%, 35 mL
Buffer capsules
Cranberry apple tea, 4 bags
Grape juice, 100%, 5.5-oz can

		Hibiscus, 20 g	
		Rose petals, 20 g	
		Pipets, Beral-type, 80	
BOX 3 of 10	2 Lab Kits included	Materials inside each PF white box	
PF2013	Feedback and Climate Change	Antacid effervescent tablets, 30	
		Clay, ¼ lb stick, 2	
		Plastic bottle, 1 L, 10	
PF2021	Develop a Periodic Table	Plastic farm animals, 144	
		Element card set, blue, 4	
		Element card set, yellow, 3	
		Element card set, green, 3	
BOX 4 of 10	6 Lab Kits included	Materials inside each PF white box	
PF2056	Design A Model Of Ocean Acidification Engineering Design Challenge	Bromocresol green indicator solution, 0.04% aqueous, 20 mL dropper bottles, 3	
		Calcium hydroxide, 500 g	
		Bromocresol green indicator charts, 10	
		Drinking straws, 50	
		Seltzer water, bottle, 12	
PF2058	Albedo And Composition Of Earth's Surface	Sand, black, 1 kg	
		Sand, white, 1 kg	
		Soil, black, 3.6 kg	
		Petri dishes, 40	
PF2003	Matter Transformation In Combustion	Dextrose, 100 g	
		Sucrose, 100 g	
		Balloons, 12", package of 20	
		Test tubes, borosilicate glass, 20	
PF2025	Characteristics of Ionic Bonds	Calcium carbonate, 25 g	
		Dextrose, 20 g	
		Dodecyl alcohol, 20 g	
		Iron(III) oxide, 30 g	
		Potassium chloride, 25 g	
		Salicylic acid, 20 g	
		Sodium chloride, 25 g	
		Sucrose, 40 g	
		Test tubes, glass, 45	
PF2055	Measure Acid Strength	Potassium dihydrogen phosphate (potassium phosphate, monobasic), 8 g	
		Potassium hydrogen sulfate (potassium bisulfate), 8 g	
		Potassium hydrogen phthalate, 8 g	
		Phenolphthalein solution, 0.5%, 30 mL	
		Potassium hydrogen tartrate (potassium bitartrate), 8 g	
		Sodium hydroxide, 0.1 M, 250 mL	
		Pipets, Beral-type, 20	
		Weighing dishes, 20	
PF2086	Build A Basic Generator Engineering Design Challenge	Cardboard tube, 10	
		Iron nails, package of 10	
		LED, Red, 1.2 V, package of 10	
		Magnet wire, 30 gauge, 200 ft, 10	
		Neodymium magnets, 10	
		Sandpaper, 9" x 11" sheet	
BOX 5 of 10	6 Lab Kits included	Materials inside each PF white box	
PF2043	Evaluate Chemical Reactions	Aluminum foil, roll	
		Calcium carbonate, 25 g	
		Copper(II) chloride solution, 0.05 M, 1 L	
		Copper(II) chloride solution, 1.0 M, 1 L	
		Hydrochloric acid, 2 M, 500 mL	
		Magnesium carbonate, 100 g	
		Sodium phosphate solution, 0.05 M, 1 L	
		Balloons, 12 in., 40	
		Bingo chips, blue, package of 120, 2	
		Bingo chips, green, package of 250	
		Bingo chips, red, package of 250	
		Bingo chips, yellow, package of 250	

PF2063	Carbon Dioxide And Its Role In Climate	Antacid effervescent tablets, 40 Clear plastic bottles, 1 L, 10 Modeling clay, ¼ lb package, 2 Plastic wrap, 200 ft Rubber bands, 120
PF2028	Intermolecular Forces	Ethyl alcohol, anhydrous, 500 mL Capillary tubes, 100 mm, package of 100 Glass slides, package of 72 Microspatulas, 24 Petri dishes, plastic, package of 15 Pipets, Beral-type, microtip, 40 Polyethylene slides, package of 25
PF2052	Hess's Law and the Combustion of a Metal	Hydrochloric acid, 1 M, 800 mL Magnesium ribbon, 3 feet Magnesium oxide, 10 g Calorimeters, small scale, 10 Weighing dishes, 20
PF2082	Ocean Currents	Sodium chloride, 500 g Beral-type pipet, 20 Blue food dye, 15 mL bottle Red food dye, 15 mL bottle Shell vial, 30 mL, 20
PF2092	Building A Better Bike Engineering Design Challenge	Aluminum strips, 30 Aluminum wire, 16 gauge, 50 feet Bamboo skewers, package of 100 Cardstock, 40 sheets Chenille wire, 12", 135 Clay, ¼ lb, 2 Duct tape, roll
BOX 6 of 10	11 Lab Kits included	Materials inside each PF white box
PF2040	Determine an Empirical Formula	Barium chloride dihydrate, 75 g Labels, 20 Vials with snap-on caps, 10
PF2001	Energy Densities of Organic Fuels	Aluminum foil, roll Charcoal, 90g Wood splints, package of 100
PF2007	Evaluate The Thermal Equilibrium Of Metals	Cobalt(II) chloride/alcohol/water solution, 300 mL Iron(III) nitrate solution, 0.1 M, 25 mL Potassium thiocyanate solution, 0.1 M, 20 mL Test tubes, 13 mm x 100 mm, 65
PF2011	The Rise and Fall of Pangaea	Ocean Bases, blue, laminated, 10 Ocean Crust Worksheets, red, laminated, 10 Ocean Crust Worksheets, purple, laminated, 10 Ocean Crust Worksheets, yellow, laminated, 10 Pangaea Continental Plates Worksheets, green, laminated, 10
PF2018	Evaluate The Bohr Model Of The Atom	Target sheets, waist-level, package of 10 Target sheets, eye-level, package of 10 Dice, package of 24 Glass marbles, package of 15
PF2019	Model Electron Configuration	BBs, box of 1500 Envelope containing: Seating chart (1); and Concert floor plan (1) Forceps, plastic, package of 10 Magnetic tape, rolls, 10 Weighing dishes, medium, package of 10 Weighing dishes, small, package of 10
PF2060	How Melting Ice Affects Sea Levels	Clay, assorted colors, 20 sticks Plastic containers, 20
PF2077	Titration - The Study of Acid-Base Chemistry	Acetic Acid Solution Unknown A, 750 mL, 1.0 M

		Acetic Acid Solution Unknown B, 750 mL, 1.6 M	
		Acetic Acid Solution Unknown C, 750 mL, 0.833 M	
		Hydrochloric acid, 0.5 M, 60 mL	
		Phenolphthalein indicator solution, 1.0%, 30 mL	
		Potassium hydrogen phthalate, KHP, 25 g	
		Sodium hydroxide, , 0.1 M, 1 L	
		Sodium hydroxide solution, 1.0 M, 800 mL	
		Weighing dishes, 10	
PF2089	Growing Crystals In Gel Engineering Design Challenge	Copper(II) chloride solution, 1 M, 100 mL	
		Cobalt(II) chloride, 25 g	
		Zinc nitrate solution, 1 M, 100 mL	
		Iron(III) nitrate solution, 1 M, 100 mL	
		Sodium phosphate monobasic solution, 1M, 600 mL	
		Sodium silicate solution, 15%, 750 mL	
		Stoppers, solid, #2, 20	
		Test tubes, 20 x 150 mm, 20	
PF2090	Evaluate Metals For A Commercial Application Engineering Design Challenge	Aluminum foil, roll	
		Aluminum nitrate solution, 0.1 M, 500 mL	
		Copper strips, 1.2 x 15 cm, 10	
		Copper(II) sulfate solution, 0.1 M, 500 mL	
		Iron strips, 1.2 x 15 cm, 10	
		Iron(II) sulfate heptahydrate, 8 g	
		Magnesium nitrate solution, 0.1 M, 500 mL	
		Magnesium ribbon, 91 cm	
		Zinc sulfate solution, 0.1 M, 500 mL	
		Zinc foil, Zn, 7 cm x 7 cm, 20 squares	
		Pipets, Beral-type, 80	
		Sandpaper sheet, 23 cm x 28 cm	
		Toothpicks, box of 250	
PF2094	Water Purification Engineering Design Challenge	Calcium chloride, anhydrous, CaCl ₂ , 60 g	
		EDTA, 0.04 M, 600 mL	
		Fertilizer, 680 g	
		Barium nitrate, 0.1 M, 2 L	
		Sodium carbonate, anhydrous, Na ₂ CO ₃ , 50 g	
		Sodium rhodizonate solution, 0.2 g (to prepare 0.02% solution)	
		Zeolite (Ion exchange resin), 400 g	
		Pipet, beral-type, 40	
BOX 7 of 10	13 Lab Kits included	Materials inside each PF white box	
PF2026	Investigate Metallic Compounds	Aluminum shot, 30 g	
		Carbon (charcoal), 1 large block	
		Cupric chloride solution, 0.1 M, 125 mL	
		Copper, 6" x ½" strips, 2	
		Hydrochloric acid solution, 1 M, 125 mL	
		Iodine, 10 g	
		Magnesium ribbon, 3 feet	
		Silicon, 20 g	
		Sulfur, 10 g	
		Zinc, 5" x ½" strips, 2	
		Nails, 10	
		Pipets, Beral-type, 40	
		Test tubes, 90	
PF2008	Thermal Energy and Heat Transfer	Aluminum strips, 6 in., package of 10	
		Copper strips, 6 in., package of 5	
		Iron strips, 6 in., package of 5	
		Zinc strips, 5 in., package of 10	
		Cardboard, 11 cm x 14 cm, 5	
		Microscale calorimeters, 20	
		Scissors, heavy-duty	
PF2023	Periodic Trends And Properties	Aluminum foil, heavy duty, roll	
		Barium chloride, 0.1 M, 75 mL	
		Calcium chloride, 0.1 M, 75 mL	
		Calcium turnings, 8 g	
		Hydrochloric acid, 0.5 M, 75 mL	

		Magnesium ribbon, 18 in.	
		Magnesium chloride, 0.1 M, 75 mL	
		Potassium iodate, 0.2 M, 75 mL	
		Sodium carbonate, 1 M, 75 mL	
		Sodium sulfate, 1 M, 75 mL	
		Strontium chloride, 0.1 M, 75 mL	
		Beral pipets, graduated, 160	
		Red litmus paper, vial	
PF2032	Measure the Energy of a Phase Change	Cetyl alcohol, 30 g	
		Ethanol, 120 mL	
		Lauric acid, 30 g	
		Stearic acid, 30 g	
		Polystyrene foam cups, package of 30	
		Rubber bands, orthodontic, package of 100	
		Test tube, 20 mm x 150 mm, 10	
		Weighing dishes, 10	
PF2038	Describe Small-Scale Matter Using the Mole	Aluminum foil, roll	
		Navy beans, dry, 2 lbs	
		Rice, dry, 2 lbs	
PF2045	Predict Chemical Reactions	Aluminum foil, 16 in. x 18 in.	
		Ammonium oxalate solution, 0.25 M, 35 mL	
		Barium chloride solution, 0.1 M, 50 mL	
		Calcium chloride solution, 0.1 M, 50 mL	
		Calcium chloride solution, 0.5 M, 300 mL	
		Copper(II) chloride solution, 1 M, 85 mL	
		Copper(II) sulfate solution, 0.1 M, 85 mL	
		Copper wire, Cu, 18 gauge, 30 feet	
		Magnesium chloride solution, 0.1 M, 50 mL	
		Potassium iodate solution, 0.2 M, 35 mL	
		Potassium iodide solution, 0.1 M, 75 mL	
		Silver nitrate solution, 0.1 M, 75 mL	
		Silver nitrate solution, 0.5 M, 100 mL	
		Sodium bicarbonate, 100 g	
		Sodium carbonate solution, 1 M, 35 mL	
		Sodium carbonate solution, 0.5 M, 300 mL	
		Sodium chloride solution, 1 M, 100 mL	
		Sodium hydroxide solution, 1 M, 75 mL	
		Sodium sulfate solution, 1 M, 35 mL	
		Strontium chloride solution, 0.1 M, 50 mL	
		Zinc metal shot, 10 g	
		Pipets, beral-type, 100	
PF2048	Determination of Reaction Output	Calcium acetate, 25 g	
		Calcium chloride, 300 g	
		Magnesium sulfate, 50 g	
		Potassium carbonate, 100 g	
		Sodium bicarbonate, 100 g	
		Sodium carbonate, 100 g	
		Universal indicator solution, 20 mL	
		Zinc sulfate, 25 g	
		Glass wool, 3 g	
		Universal indicator charts, 10	
PF2064	How Nature Records Changes In Climate	Magnifiers, 10	
		Marking pins, package of 100	
		Rulers, metric, 10	
		Tree round sample, 12	
PF2071	Collision Theory	Expanded polystyrene spheres, 2 in diameter, 48	
		Expanded polystyrene spheres, 1.5 in diameter, 48	
		Hook and loop fastener dots, 48	
		Magnetic marbles, 32	
		Pom poms, black, package of 50	
		Pom poms, red, package of 50	
		String, cotton, ball	

PF2072	Explore Chemical Equilibrium	Bromocresol green indicator, 0.04%, 35 mL Iron(III) nitrate solution, 0.1 M, 75 mL Hydrochloric acid, 0.1 M, 75 mL Potassium thiocyanate solution, 0.1 M, 75 mL Sodium hydroxide solution, 0.5 M, 75 mL Beral-type pipets, graduated, 60
PF2083	The Fate of Carbonate in Acidifying Oceans	Calcium chloride, 25 g Hydrochloric acid solution, 3.0 M, 50 mL Sodium bicarbonate, 20 g Sodium carbonate, 20 g Sodium chloride, 75 g Beral-type pipets, 100 Weighing dishes, 20
PF2084	Energy Efficient Cookware Engineering Design Challenge	Aluminum strip, 6" x ½", 10 Copper strip, 6" x ½", 10 Paraffin wax, 20 g Zinc strip, 5" x ½", 10
PF2088	Build A Spectroscope From Household Materials Engineering Design Challenge	Cardboard tubes, 10 Construction paper, black, 9" x 12" sheets, 2 Electrical tape, black, roll Hole punches, 3 Holographic diffraction grating, 2" x 4"
BOX 8 of 10	11 Lab Kits included	Materials inside each PF white box
PF2031	Correlate Material Properties and Bond Type	Aluminum, granular, 10 g Ethanol, 95%, 50 mL Hexane, 100 mL Methanol, 25 mL Sodium chloride, 5 g Silicon dioxide, 5 g Stearic acid, 5 g Sucrose, 5 g Test tubes, small, 55
PF2006	Introduction To Electromagnetism	Compasses, Pkg/10 Connector cords w/ alligator clips, 22 in., 20 Iron nails, Pkg/10 Mini soda bottles, 10 Neodymium magnets, Pkg/10 Paper clips, steel, package of 100, 2 Plastic jar, 60 mL, 10 Sandpaper, 9 in. x 11 in. sheet
PF2016	Bean Bag Isotopes	Lima beans Navy beans Kidney beans Pea seeds Weighing dishes, 40 Zipper-lock bag, large, 10
PF2035	Investigate Surface Tension	Construction paper, black, half sheets, package of 10, 2 Cotton swabs, package of 75 Paper clips, box of 100 Petri dishes, 30 Pipets, beral, package of 20 Paraffin wax, 4 oz blocks, 4 Soap solution, 70 mL
PF2047	Identify Unknowns Through Stoichiometry	Bromocresol green indicator solution, 0.04%, 35 mL Hydrochloric acid solution, 0.1 M, 1 L Hydrochloric acid solution, 2 M, 500 mL Potassium carbonate, 60 g Sodium carbonate, 60 g Weighing dishes, 50
PF2053	The Heat Of Melting Ice	Sodium chloride, 400 g

		Sodium chloride solution, 1.0 M, 150 mL	
		Polystyrene cups, package of 30	
		Test tubes, 16 mm × 100 mm, 20	
		Weighing dishes, 20	
PF2061	Observe Air Pollution	Bromthymol blue indicator solution, 0.04%, 100 mL	
		Hydrochloric acid solution, "simulated acid rain solution", 1 M, 500 mL	
		Marble chips (limestone), 60 g	
		Acid rain test strips, 15	
		Adhesive labels, sheet of 80	
		Beral-type pipets, 40	
		Magnifying glasses, 10	
		Matches, box of 32, 5	
		Microscope slides, plastic, package of 25	
		Sampling containers, 10	
		Syringes, 20 mL, package of 10	
		Tubing, plastic, 1/8", 3 ft	
PF2065	Human Activity and Carbon Emissions	Bromthymol blue solution, 500 mL	
		Copper(II) carbonate, 50 g	
		Phenolphthalein indicator solution, 1%, 100 mL	
		Sodium hydroxide solution, 0.1M, 150 mL	
		Candles, 10	
		Ointment-style glass jars with lids, 18	
		Wine airlock, 6	
PF2066	Model Climate Change With Melting Ice	Cardboard squares, 11.5 cm x 14 cm, 10	
		Containers, clear, 16 oz, 40	
		Expanded polystyrene cups, package of 30	
		Heat-resistant gloves, 2 pairs	
		Weighing dishes, package of 10	
PF2067	Climate Change And Keeping Cool	Drierite®, 908 g (anhydrous calcium sulfate)	
		Clay, modeling, 1/4 lb	
		Rubber band, orthodontic, package of 100	
PF2176	Energy In The Atmosphere	Ammonium hydroxide, concentrated 14.7 M, 100 mL	
		Hydrochloric acid, concentrated, 12.1 M, 30 mL	
		Phenolphthalein solution, 1%, 100 mL	
		Thymol blue solution, 0.04%, 100 mL	
		Cotton balls, package of 300	
		Glass diffusion tubes, 14-mm wide by 30-cm long, 20	
		Medicine droppers, glass, 24	
		Rubber stoppers, size 00, 90	
BOX 9 of 10	10 Lab Kits included	Materials inside each PF white box	
PF2002	Measure Energy Flow in Chemical Reactions	Ammonium thiocyanate, 100g	
		Barium hydroxide, 150g	
		Calcium oxide, 100 g	
		Zipper-lock bags, 15	
PF2022	Elemental Metals, Nonmetals, And Metalloids	Aluminium strips, package of 10	
		Carbon rods, package of 10	
		Iron nails, package of 10	
		Silicon, lumps, 20 g	
		Sulfur, package of 10	
		Tin, mossy, 25 g	
		Connector cord with alligator clips, 20	
		Lamp bulbs, package of 10	
		Light socket, package of 10	
PF2027	Investigate Covalent Bonds	Calcium carbonate, 25 g	
		Dextrose, 20 g	
		Dodecyl alcohol, 20 g	
		Iron(III) oxide, 30 g	
		Potassium chloride, 25 g	
		Salicylic acid, 20 g	
		Sodium chloride, 25 g	
		Sucrose, 40 g	
		Test tube, glass, 45	

PF2034	Modeling Metals, Ceramics, And Polymers	Bamboo skewers, package of 100 Chenille wires, assorted colors, 405 Expanded polystyrene balls, 1", 150 Wrapping paper, 24", 15 assorted pieces
PF2036	Aqueous Solutions	Copper(II) sulfate, 300 g Dextrose (glucose), anhydrous, 300 g Weighing dishes, package of 10
PF2041	Preparation Of Solutions	Copper(II) sulfate, 600 g Beral-type pipets, 40 Weigh dishes, 20
PF2070	Reaction Rates: Iodine Clock	Potassium iodate solution, 0.2 M, 2.4 L Starch, soluble, potato, 52 g Sodium metabisulfite, 32 g Cups, clear plastic, 10 oz, package of 50
PF2095	Build A Film Canister Rocket Engineering Design Challenge	Sodium bicarbonate, 100 g Vinegar, 500 mL Film canisters with caps, 15 Manila folders, 10 Paper clips, box of 100 Tissue (lens) paper, box Weighing dishes, 20
PF2096	Flameless Heating Systems Engineering Design Challenge	Calcium oxide, 500 g Beral pipets, package of 20 Test tubes, 13 mm x 100 mm, 10 Weighing dishes, 20
PF2098	Use Equilibrium For A Commercial Application Engineering Design Challenge	Acetic acid, 1 M, 540 mL Bromcresol green indicator solution, 0.04%, 75 mL Seltzer water, 8 oz bottles, 3 Sodium bicarbonate, 100 g Balloons, 12", package of 20 Beral-type pipet, graduated, 20 Bromcresol green indicator charts, 5 Syringes, 35 mL, 30 Syringe tip cap, 30
BOX 10 of 10	10 Lab Kits included	Materials inside each PF white box
PF2039	Mole Ratios	Acetone, CH ₃ COCH ₃ , 250 mL Copper wire, Cu, 457 cm Nitric acid, HNO ₃ , 3 M, 10 mL Silver nitrate, AgNO ₃ , 25 g Wooden splints, package of 30
PF2010	Observe Convection Currents	Benzyl alcohol, blue, 200 mL Sodium chloride, 120 g Food coloring, red, 30 mL Glass tubing, 5 in., Package of 10 Glass tubing, 2.5 in., Package of 10 Rubber stopper, solid, #5, 10 Rubber stopper, 2-hole, #5, 10
PF2017	Evaluate Atomic Spectra	C-spectra square, 2" x 4", 5 Calcium carbonate, 25 g Potassium carbonate, 30 g Sodium carbonate, 30 g Banana chips, 1 lb Flashlight Spectroscopes, 4 Wood splints, 100
PF2029	Chemical Names and Formulas	Copper(II) chloride solution, 0.1 M, 500 mL Iron(III) nitrate solution, 0.1 M, 500 mL

		Sodium hydroxide solution, 0.1 M, 500 mL	
		Sodium phosphate solution, 0.1 M, , 500 mL	
		Ion formula charts, 15	
		Models of anions sheets, 15	
		Models of cations sheets, 15	
		Pipets, Beral-type, thin-stem, 60	
		Test tubes, 10 × 75 mm, 100	
		Wood splints, package of 100	
PF2044	Types of Chemical Reactions	Aluminum foil, 30.5 x 30.5 cm sheet	
		Calcium chloride solution, 0.5 M, 60 mL	
		Calcium turnings, 5 g	
		Copper(II) chloride solution, 0.05 M, 500 mL	
		Copper(II) chloride solution, 1.0 M, 500 mL	
		Copper wire, 1.8 m	
		Ethyl alcohol, 95%, 50 mL	
		Magnesium metal ribbon, 91.5 cm	
		Silver nitrate solution, 0.5 M, 100 mL	
		Sodium bicarbonate, 20	
		Sodium carbonate solution, 0.5 M, 60 mL	
		Sodium metal, 2 g	
		Sodium phosphate solution, 0.05 M, 500 mL	
		Sodium sulfate solution, 0.5 M, 500 mL	
		Alligator clips, 10	
		Cobalt chloride test papers and instruction card	
		Pencil leads, tube of 12	
		Petri dishes, disposable, 20	
		Pipets, Beral-type, 40	
		Test tubes, borosilicate glass, 13 mm × 100 mm, 45	
		Wooden splints, package of 100	
PF2049	Formation Of Barium Iodate	Barium chloride solution, 0.2 M, 1 L	
		Potassium iodate solution, 0.2 M, 1 L	
		Sodium bisulfate/starch indicator solution, 200 mL	
		Sodium sulfate solution, 0.1 M, 125 mL	
		Pipets, Beral-type, 100	
		Syringes, 10 mL, 20	
		Test tubes, 16 mm x 100 mm, 50	
		Wood splints, package of 100	
PF2068	Solar Cell Technology	Iodine/Potassium iodide electrolyte solution, 25 mL	
		Nitric acid solution, 0.1 M, 50 mL	
		Titanium oxide, nanocrystalline, 4 g	
		Beral pipets, package of 20	
		Binder clips, 14	
		Bingo chips, package of 70	
		Culture dishes, 20	
		Microscope slides, plastic, 7	
		Transparent indium tin oxide (ITO) coated glass slides, 14	
PF2080	The pH of Seawater	Acetic acid solution, 2 M, 500 mL	
		Sodium bicarbonate, 50 g	
		Sodium carbonate, 10 g	
		Sodium chloride, 200 g	
		Phenolphthalein indicator, 1 % solution, 30 mL	
		Universal indicator solution, 30 mL	
		Beral-type pipets, 40	
		Universal indicator charts, 10	
		Weighing dishes, 30	
PF2081	Carbon Dioxide Levels In Water	Antacid effervescent tablets, package of 40	
		Sodium chloride, 100 g	
		Flexible laboratory film, 12" x 2", 10	
		Weighing dishes, 20	
PF2091	Abrasive Compounds Engineering Design Challenge	Aluminium oxide, 100 g	
		Sodium chloride, 50 g	
		Glucose (Dextrose), 50 g	
		Oil, corn, 100 mL	

		Vinegar, 110 mL	
		Microfiber cloths, 2	
		Sandpaper, sheets, 9" x 11", 2	
		Wax, blocks, 4	