

BGCA DIY STEM Kit List v3

Totals for 5 Units (18 activities, common consumables, common reusable items)

- Materials for Units 1-5 will be sorted by unit and packaged within one large plastic bin, along with goggles from the Common Reusables list.
- Common Consumables Items will be packaged within one medium plastic bin.
- Common Reusable Items will be packaged within one medium plastic bin.
- Branded Packing Supplies (complete kit ships as two cardboard boxes)
- The BGCA will provide printed/digital content related to the implementation of the kit that is to be included in the large plastic bin (few pieces of paper, Kit Content Guide on ring, and thumb drive).

Breakdown of Kit Contents

Unit 1 (Don't Stop the Music, Art Bot, and A Bright Idea!)

3 inch iron nail - #9 x 3 in	4
Small iron nail - #11 x 2-7/8 in	4
Insulated copper wire, 20-inch pieces	4
Neodymium - disc magnets - 1/2 inch diameter	10
Modeling clay 2-4 oz	1
Foam bowl - 12 oz	4
Button magnets - 3/4 inch diameter	40
Magnet wire, 20 inches - Insulated, Wire Gauge 30	1
paper plates - 9" diameter	16
Toy DC motor, 1.5-3volt operation with leads	4
2x AA battery holder w/power switch	6
Styrofoam ball - 2"	4
Googly eyes - assorted sizes	10
Pipe cleaners - about 12" - pack of 25	1
Pie pan - mini - Top 5", Bottom 3", Depth 1-1/4"	4
Mechanical Pencil Refills 0.5mm	10
Mechanical Pencil Refills 0.7mm	10
Mechanical Pencil Refills 0.9mm	4
Alligator clips w/wires - 14"	16
Battery tester for D batteries (low/medium/high rating)	1

Unit 2 (Water Filtration, Full of Potential, Bridge Building 101)

PH strips pack of 100 w/acid based chart	1
Cheesecloth - 1-1/2sq.yds pack	1
10x10 cm window screen pieces	10
Cotton balls - pack of 100	1
Coffee filter - standard 12 cup coffee brewer size	24
Activated carbon - 200 gram package	2
Card stock - 67 lb, 8.5" x 11" - white	16
Kite string or yarn - 200 feet per roll	1
Baby powder - 9 oz	1
Tall kitchen bags - 13 gallon	8

Unit 3 (Rock Candy Crystals, Breaking the Tension, Make Your Soda Pop)

Yarn 100% acrylic - Skein	1
Small foam plate - 9"	8
Wooden beads	8
Funnel - to fit at least a half a mentos	1
Wooden coffee stirrers - about 5-1/2"	20
Citric acid - 150 grams package	1

Unit 4 (Effervescing Rockets, Pop Rockets, Straw Rockets, Heavy Lifting)

Small canister with pop on lid (plastic film canister)	8
Effervescent antacid tablets - pack of 36	1
Card stock - 67 lb, 8.5" x 11" - white	10
Glue stick - about 0.24 oz per stick	4
1/2" PVC Pipe - 12" Piece	4
1/2" PVC Pipe - 6" Piece	3
1/2" PVC Connector (slip)	1
1/2" PVC Tees (slip)	2
1/2" PVC Caps (slip)	2
Dowel rod - about 12" - 1/8"	8
Flexible drinking straws - 8-9"	20
Large binder clips - 2" width	16
Fishing line - spool	1
Long balloons - 48"	32
Balloon pump	4
3 oz paper cup	4
Straight drinking straw - 8-9"	8
Sandwich size bag w/zipper	4

Unit 5 (Materials Science, Nutrition/Body Systems, Newton's Law of Motion, Sound Waves, Weather, Kinesiology)

Foam bowl - 12 oz	3
Salt -any type (16-26 oz)	1
Cardboard box (instruct Club to keep shipping boxes?)	0
Air pressure gauge	1
Long balloons - 48"	32

Common Consumable Items

Lab Notebooks with Pen - Branded	0
Pencils	16
Washable Markers - thin, set of 8 classic colors	2
Craft Glue - 4 oz bottles	4
Hot Glue Sticks (low temp)	25
Rubber Bands - large	12
Rubber Bands - medium	16
Rubber Bands - small	16
Masking Tape - about 1 in x 60 yd roll	2
Electrical Tape - about 0.75" x 12 foot roll	2
Scotch Tape - about 3/4" X 300" per roll	2
Duct Tape - about 1.8" x 20 yds	2
Blue Painters Tape - about .9in x 60yd per roll	2
Paper clips - #1 size - box of 100	3
Paper Clips - Jumbo size - box of 100	2
Popsicle Sticks - about 4-1/2" x 3/8" x 1/12"	1000
Wax Paper - about 60' roll	1
Crayons - 24 colors per box	1
Index cards - 5" x 8" blank white	20
Plastic wrap - 100 sq. ft. roll	1
Permanent markers	2

Common Reusable Items

Vented Goggles	15 - will be packed in unit container due to space
Glass Jar - 16oz (no lid needed)	8
Stirring Device (heat resistant)	1
Measuring Cup Set	4
Measuring Spoon Set (needs 1/8 tsp)	4
Measuring Tape (for rulers/meter stick)	4
Mini Screwdriver Set	1
Hot Glue Gun - low temp	2