

# KELVIN® EDUCATIONAL

## KELVIN® PopRocket™ Launcher

The PopRocket™ Launcher is the only system with separate, built-in water and air inputs. Combine the thrill of actually launching a rocket (or shuttle or bottle plane) with more safety, durability, and ease of use features than any other launcher on the market.

### Features:

- **Safety Screen:** A see-through safety shield.
- **Structure:** Removable 3-1/2 ft. long metal legs and a metal launch pad (both painted).
- **Dry Load:** KELVIN® PopRocket™ allows you to "dry load" or, put an empty bottle upside on the holder without water. The system has an input for pouring water to the desired level. Ideal for field launching (no need to hook to a hose).
- **Hand Pump:** Heavy-duty bicycle pump included.
- **Stakes:** The stakes are hammered into the ground and attached to the launcher's legs when in use. This keeps the launcher attached to the ground and helps prevent tilting during the launching.

Safety is always major issue in school so we have worked hard to provide you with a product that minimizes the possibility of injury. Our launchers have the advantage of a raised launch pad with 3-1/2 ft. long legs and stakes for extra safety. For that reason, young students cannot accidentally look down on the rocket when it is launched. Teacher supervision is a must when the PopRocket™ Launcher is being used to ensure student safety. Grades 7 and up. ★ \$35 Additional Shipping Charges Apply

841341 Launcher w/ Pump & 20 Kits.....**\$275**

## PopRocket™ Launcher with "Safety Officer" & Class Pack of 40 Kits

With additional safety in mind, we have added a manifold for the "safety officer" to control away from the launcher. The student that is responsible for safety will hold this control and can terminate the launch. The built-in pressure gauge has an air release switch and an overpressure limit will not allow the rocket to be inflated beyond the set limit. Gr. 7+.



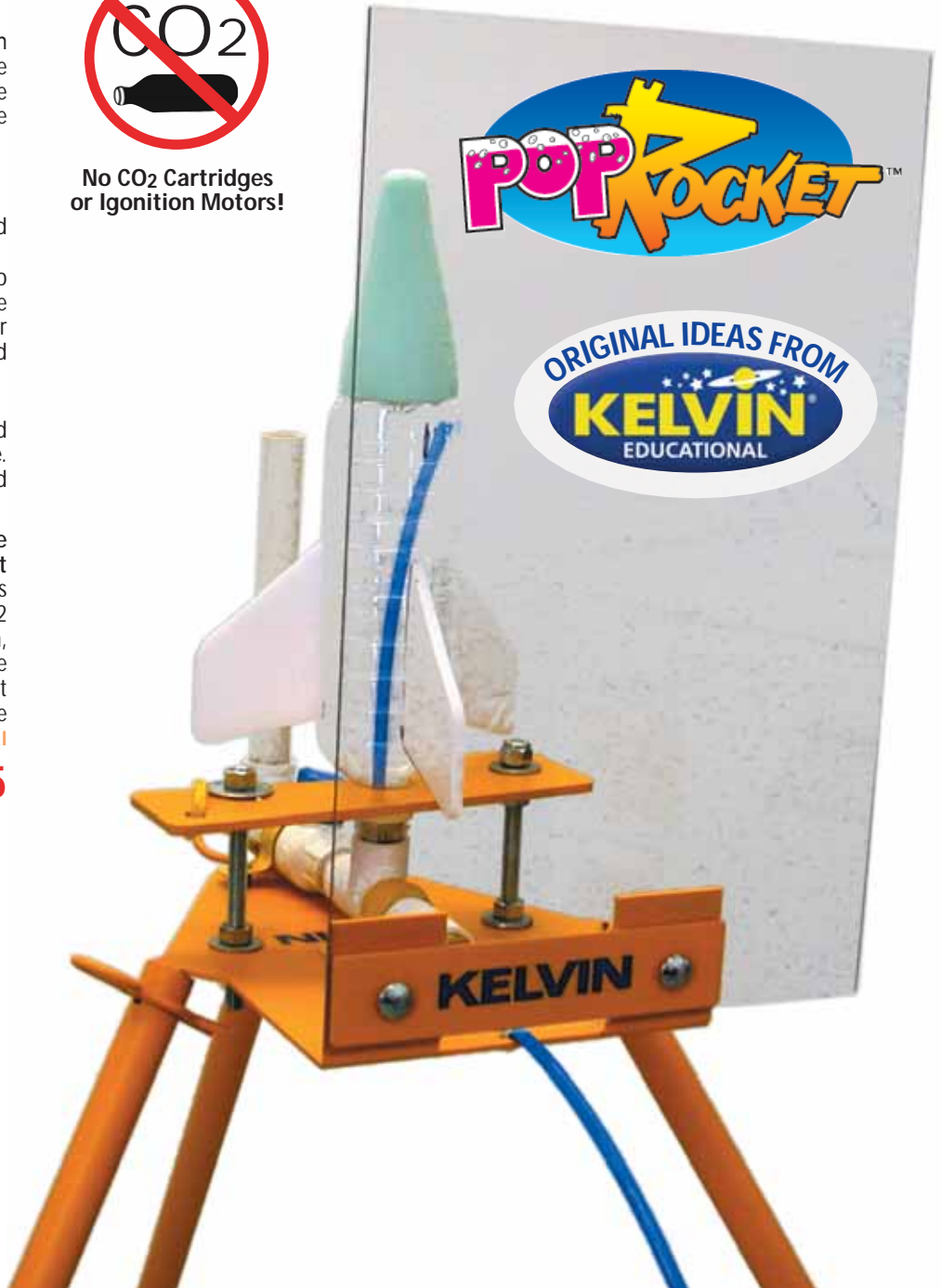
★ \$35 Additional Shipping Charges Apply

841342 Launcher w/ Safety & 40 Kits.....**\$495**



No CO2 Cartridges or Ignition Motors!

# ROCKETS TRANSPORTATION



## PopRocket™ Cardstock Rocket

Bottle, rigid cardstock for fins and a ping-pong ball.

**Kit**  
841343, **\$3.95**  
or **\$3.45** ea./20+  
or **\$2.95** ea./50+

**Bulk Pack for 100 Students**  
841413, **\$145**

**As low as \$1.45 per kit!**

## PopRocket™ Foam Rocket

Student kit includes bottle and foam to be shaped by your students as a rocket or a space shuttle.

841344 .....**\$3.95**  
or **\$3.45** ea./20+  
or **\$2.95** ea./50+

## 1/2 Liter Water Bottle without Cap

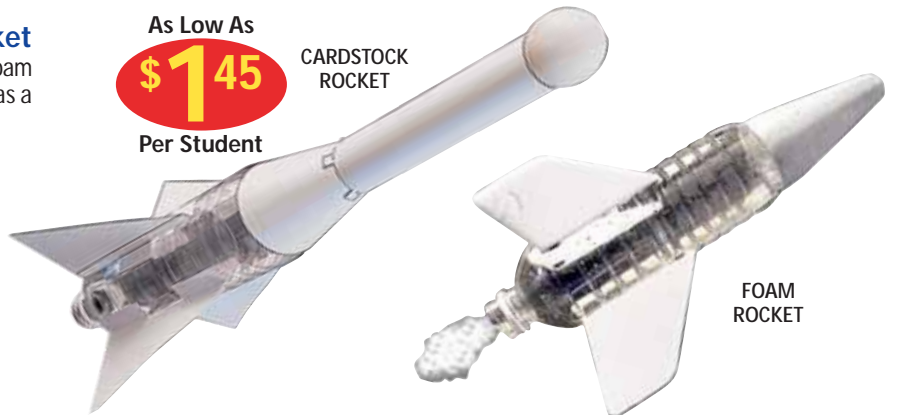
390993 ....**69¢**  
or **62¢** ea./10+  
or **55¢** ea./100+

As Low As

**\$1.45**

Per Student

CARDSTOCK ROCKET



FOAM ROCKET



**Very Economical!  
Engines and  
CO<sub>2</sub> Cartridges  
Are NOT Needed!**



**No CO<sub>2</sub> Cartridges  
Are Needed, Uses  
Compressed Air!**

**As Low As  
\$4.95  
Per Rocket**



**KELVIN® Paper Rocket™ System**

KELVIN®'s adjustable angle launch pad can launch paper rockets up to 175 feet using compressed air. Flight is based on fin design and assembly. The system includes pre-printed colored paper, launch pad, extension tube attachment, dowel rods and instructions. Requires a portable air compressor (see below). Suitable for Grades 5 and up.

- 840868 Single Paper Rocket™ Launcher .....\$295
- 841045 Dual Paper Rocket™ Launcher (shown)....\$375
- 120938 Paper Rocket™ Video.....\$29.95

**Portable Air Compressor  
w/ Built-In 4 Gal. Air Tank**

- 500027 .....\$175

**Pre-Printed Paper Rockets™ Bulk Pack**

- Make model rocket body tubes. 8-1/2" x 11".
- 420406 500 Sheets.....\$49.95

**As low as 9¢ per rocket body tube!**

**KELVIN® Rocket Scientist™ Launcher**

Launch different diameter paper rockets! Roll your own rocket tubes out of construction paper or use Estes BT-20 and BT-50 body tubes. Add a nose cone and fins and you're ready for a great flight. Economical—no engines required. Also launches gliders! Includes rugged air-powered launcher, adapters & instructions.

- 283404 Launcher.....\$295
- 870035 Bicycle Pump .....\$49.95
- Portable Air Compressor with Built-In 4 Gal. Air Tank
- 500027 .....\$175

**Rocket Scientist™ Rocket Bulk Pack**

- Includes body tubes, nose cones, balsa fin material, glue and complete instructions.
- 283405 20 Kits .....\$99

**As low as \$4.95 per student!**

- Rocket Scientist™ Rocket Construction Manual
- 652293 .....\$7.95 or \$6.95 ea./20+

**As Low As**

**9¢**

**Per Body Tube**





**Rocket Engines Bulk Packs**

STOCK #	TYPE	QTY.	\$ 1-2	\$ 3+
282055	1/2A3-4T	24	49.95	47.95
840231	A8-3	24	61.95	58.95
840232	B6-4	24	62.95	59.80
282056	C6-5	24	72.95	69.95

**Rocket Engines Small Packs**

Minimum order of 3 packs.

STOCK #	TYPE	QTY.	\$ 1-2	\$ 3+
283030	1/4A3-3T	4	8.95	8.35
283031	1/2A3-2T	4	8.95	8.35
283032	1/2A6-2	3	8.95	8.35
283033	A3-4T	4	8.95	8.35
283034	A8-5	3	8.95	8.35
283035	A10-3T	4	8.95	8.35
283036	B4-2	3	9.25	8.95
283037	B4-4	3	9.25	8.95
283038	B6-2	3	9.25	8.95
283039	C6-0	3	10.25	9.65
283040	C6-3	3	10.25	9.65
283041	C6-7	3	10.25	9.65
283042	C11-3	3	10.25	9.65
283043	D12-5	3	14.95	14.25



**Blast Off Flight Pack**

Includes [24] engines total (6 each of A8-3, B6-4, C6-3, C6-5), igniter plugs, [30] igniters and a package of recovery wadding [75 sheets].

840289 .....\$62.95 or \$59.85 ea./3+

**B6-0 / B6-6 Engines Variety Pack**

841365 12 of ea. ....\$72.50 or \$68.95 ea./3+

**PLEASE NOTE:**  
We can only ship rocket engines to the Continental U.S. via US Postal Service Ground Shipment.



**Nose Cones**

Each package of nose cones contains a variety of shapes. Some cones are 1-piece, others 2-piece. All have eyelets for shock cord/shroud line attachments.

282069	NC-5, 5/pkg.	.....\$4.95 or \$4.45 ea./5+
282070	NC-20, 4/pkg.	.....\$4.95 or \$4.45 ea./5+
282071	NC-50, 5/pkg.	.....\$5.95 or \$5.35 ea./5+
282072	NC-55, 4/pkg.	.....\$6.95 or \$6.25 ea./5+
282073	NC-56, 4/pkg.	.....\$6.95 or \$6.25 ea./5+
282074	NC-60A, 2/pkg.	.....\$7.95 or \$7.15 ea./5+
282075	NC-80B, 1/pkg.	.....\$3.95 or \$3.60 ea./5+



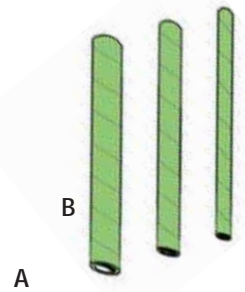
**Body Tubes**

840500	BT-5, 0.544 in. dia., 18 in. (45.7 cm) L, 4/pkg.	.....\$6.95 or \$6.25 ea./5+
282061	BT-20, 0.75 in. dia., 18 in. (45.7 cm) L, 4/pkg.	.....\$6.95 or \$6.25 ea./5+
282062	BT-50, 1 in. dia., 18 in. (45.7 cm) L, 3/pkg.	.....\$7.95 or \$7.15 ea./5+
282063	BT-55, 1.25 in. dia., 18 in. (45.7 cm) L, 4/pkg.	.....\$7.95 or \$7.15 ea./5+
282064	BT-60, 14.2 in. (36.1 cm) L, 3/pkg.	.....\$8.50 or \$7.65 ea./5+
282065	BT-80, 11 in. (27.9 cm) L, 2/pkg.	.....\$7.95 or \$7.15 ea./5+

**Large Tube Coupler Pack**

Includes two couplers for BT-55, BT-56, and BT-60; one for BT-80.

282076 .....\$6.95 or \$6.25 ea./5+



**Model Rocket Igniters**

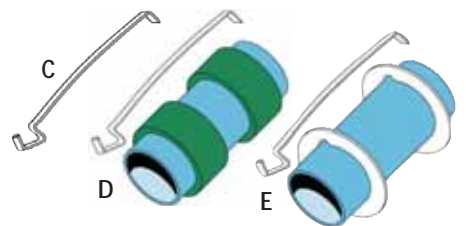
Dependable, easy-to-use igniters in a convenient six pack. It is always a good idea to have a few spares. 6 per package.

840496 [A] .....\$4.95 or \$4.45 ea./5+

**Launch Lug Pack**

Contains eight 1/8" (3mm), four 3/16" (5mm) and two 1/4" (6mm) launch lugs.

840504 [B] .....\$4.95 or \$4.45 ea./5+



**Engine Hook Pack**

Hooks fit mini-engines (2), regular and "D" engines (3) and "E" engines (2). Includes spacer for "E" engine hooks.

282066 [C] .....\$4.95 or \$4.45 ea./5+

**Engine Mount Kits**

**Regular Engines**

Fits BT-50, 55, 56 & 60 tubes. Includes parts to make [1] quick change mount for D-engine powered rockets.

282067 [D] .....\$6.95 or \$6.25 ea./5+

**D & E Engine Mount Kit**

Heavy duty engine mounts for "D" and "E" engines. Fits BT-55, 60 and 80 tubes.

282068 [E] .....\$7.95 or \$7.15 ea./5+

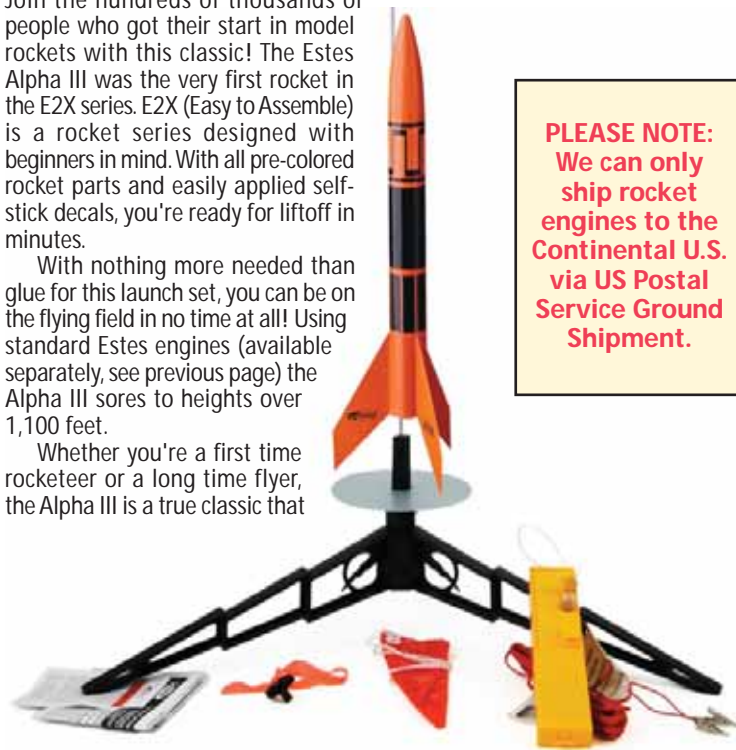


**Alpha III™ Launch Set**

Join the hundreds of thousands of people who got their start in model rockets with this classic! The Estes Alpha III was the very first rocket in the E2X series. E2X (Easy to Assemble) is a rocket series designed with beginners in mind. With all pre-colored rocket parts and easily applied self-stick decals, you're ready for liftoff in minutes.

With nothing more needed than glue for this launch set, you can be on the flying field in no time at all! Using standard Estes engines (available separately, see previous page) the Alpha III soars to heights over 1,100 feet.

Whether you're a first time rocketeer or a long time flyer, the Alpha III is a true classic that



**PLEASE NOTE:**  
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should be in everyone's collection. What more could you ask for than a high performance, high flying, classic rocket!

LAUNCH SYSTEM includes Electron Beam Launch Controller and Porta-Pad II Launch Pad. Technical Specifications: Skill Level - E2X, Length: 12.25 in. (31.1 cm), Diameter: .98 in. (25 mm), Weight: 1.2 oz. (34 g), Molded Plastic Fins, Self-stick Decals, Parachute Recovery, Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 and Max Altitude: 1100 ft. (335 m). Ages 10+.

282023 .....\$26.95 or \$25.95 ea./3+

**Parachutes**

Assembled with canopy, shroud line and tape discs.

840505 12 in.....\$7.95 or \$7.45 ea./5+

282058 18 in.....\$7.95 or \$7.45 ea./5+

282059 24 in...\$8.95 or \$8.45 ea./5+



**Elastic Shock Cords with Mounts**

Two 1/8 x 18 in. (3 mm x 450 mm) and a 1/4 x 36 in. (6 mm x 910 mm) elastic cords (enough for four shock cords). Includes instructions.

282060 ....\$5.95 or \$5.45 ea./5+

**Recovery Wadding**

Flame resistant wadding protects recovery system. Required in most Estes® rockets. 75 sheets; enough for about 18-25 flights!

840498 ....\$5.95 or \$5.65 ea./5+



**Find ESTES ROCKET KITS in this chapter on pgs. TR6-7**



**E™ Launch Controller**

Use this controller to launch "E" engine powered Estes model rockets. Comes complete with safety key and 30 ft. (9 m) of cable. Requires Four AA alkaline batteries (not included). Adult supervision is required for anyone under 18 when launching "E" engine powered rockets.

282051 ...\$28.95 or \$26.95 ea./3+



**Electron Beam® Launch Controller**

Launch controller comes complete with safety key, continuity light, push button launch button, 17 feet (5.2 m) of cable and micro-clips for igniter hook up. No assembly required! Requires four AA alkaline batteries - not included.

840287 ...\$24.95 or \$23.95 ea./3+

**Create Your Own Launcher**

Combine the two items below and create your own economical model rocket launcher.

220012 6V DC Battery .....\$7.95 or \$7.45 ea./3+

310001 #60 Alligator Clip .....39¢ or 36¢ ea./100+



**Altitrak™ Altitude Finder**

How high did it really go? Use this device to follow the rocket to apogee and release the trigger to lock the reading. Easy-to-read display gives you your altitude in meters along with the elevation angle. Use two Altitraks for greater accuracy.

840284 .....\$26.95 or \$25.95 ea./3+



**Porta-Pad® II Launch Pad**

Quick assembly - no glue or tools required! Comes complete with blast deflector and standoff, two-piece 1/8 in. (3 mm) launch rod, safety cap and key. Porta-Pad® II can accommodate a 3/16 in. (5 mm) Maxi™ launch rod - not included.

840380 ...\$27.95 or \$26.95 ea./3+

**Two-Piece Maxi™ Launch Rod**

3/16 in. (5 mm). Launch rod with extra strength and stiffness for larger rockets.

282043 ...\$15.95 or \$14.95 ea./3+

**Two-Piece Launch Rod**

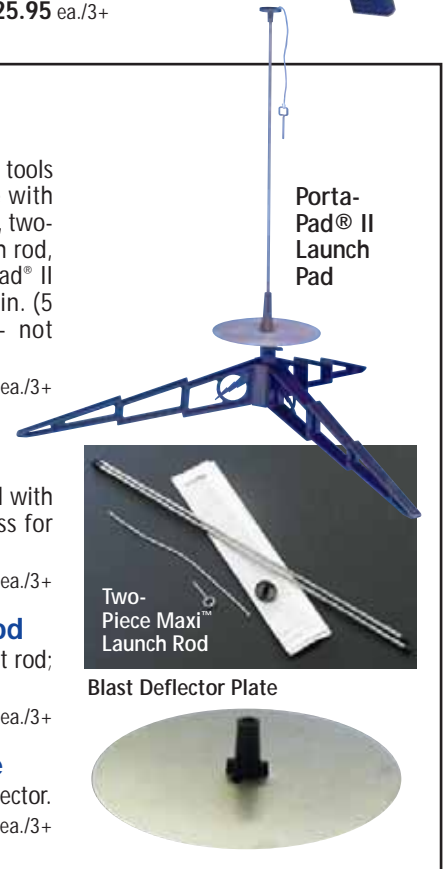
1/8 in. (3 mm). Replacement rod; ideal for most rockets.

282053 ...\$13.95 or \$12.95 ea./3+

**Blast Deflector Plate**

Replaces that worn-out deflector.

282052 ....\$5.45 or \$5.25 ea./3+





A



B



C



D



E



F

**220 SWIFT** SKILL LEVEL 1

This fun and easy to build "itty-bitty" rocket really scoots through the sky. SPECS: Length: 4.5"; Dia.: 0.54"; Weight: 0.094 oz.; Engines: 1/4A3-3T, 1/2A3-4T, A3-4T.

283562 [A] Kit .....\$6.95 or **\$6.60** ea./3+

**YANKEE™** SKILL LEVEL 1

A rocket with All-American performance - screams to 1400 ft. altitude! Comes with cool self-adhesive decals, for that red, white and blue look. SPECS: 11" long; 0.74" dia.; streamer recovery; die cut balsa fins; Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7. Kit.

281893 [B] Kit .....\$10.95 or **\$10.40** ea./3+

**WIZARD™** SKILL LEVEL 1

An easy to build high-performance kit that promises real excitement and fun! SPECS: 12" long; Dia.: 0.74"; Max. Altitude: 1500 ft.; Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7.

840277 [C] Kit .....\$10.95 or **\$10.40** ea./3+

281833 [C] Bulk Pack of 12.....\$68.95 or **\$65.50** ea./3+

**VIKING™** SKILL LEVEL 1

Fantastic rocket with multiple fin configurations – 48 in all! Features super high altitude flights of up to 1470 ft.! SPECS: 12.1" long; Dia.: 0.74"; Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7.

282036 [D] Kit .....\$10.95 or **\$10.40** ea./3+

280083 [D] Bulk Pack of 12 .....\$59.95 or **\$56.95** ea./3+

**ALPHA®** SKILL LEVEL 1

Features rugged high performance and parachute recovery (12")—the perfect rocket to get you started! SPECS: Length: 12.3" long; Dia.: 0.98; Max. Altitude: 1000 ft. Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7.

282034 [E] Kit .....\$13.95 or **\$13.25** ea./3+

281837 [E] Bulk Pack of 12.....\$88.95 or **\$81.95** ea./3+

**BIG BERTHA®** SKILL LEVEL 1

Burly, big and beautiful! Slow, realistic lift-offs from this true classic. SPECS: Length: 24"; Dia.: 1.64"; Wt.: 2.2 oz.; Max. Altitude: 500 ft.; Engines: B4-2, B4-4, B6-2, B6-4, C6-5.

282035 [F] Kit.....\$22.50 or **\$21.45** ea./3+

**PLEASE NOTE: Rocketry is a hazardous activity and an experienced counselor should be in charge.**



G



H

J

**BULL PUP 12D™ SKILL LEVEL 2**

Sport scale version of the USAF AGM-12D Bull Pup. Plastic tail cone and authentic color decals! Great first scale model. SPECS: 9.5" long; 1.33" dia.; Max. Altitude: 675 ft.; Engines: A8-3, B4-4, B6-4, C6-5.

282048 [G] Kit

**\$17.95** or **\$16.95** ea./3+

**MINI COMANCHE 3™ SKILL LEVEL 2**

A down-sized replica of the ever popular Comanche-3, only mini engine powered! AWESOME. The 3-stage Mini Comanche 3 features easy straight forward construction with out of site performance. Streamer and tumble recovery brings this awesome rocket back to earth.

When powered by the A10-3T mini engine and two A10-0T Booster engines, heights of 900 feet can be reached! Features Laser Cut Wood Fins, Waterslide Decals, Streamer and Tumble Recovery.

SPECS: 31.1 in. long; 0.74 in. dia.; Wt: 1.5 oz.; Max Altitude: 900 ft.; Engines: Booster Stages - A10-0T, Upper Stage - 1/2A3-4T (First Flight), 1/4A3-3T, A3-4T, A10-3T, Single Stage - 1/2A3-2T, A3-4T, A10-3T

282049 [H] Kit

**\$13.95** or **\$13.25** ea./3+

**ALPHA III™ E2X**

A great first rocket! Features a bright molded one piece fin unit, nose cone and parachute. SPECS: Length: 12.25"; Dia.: 0.98" Wt.: 1.2 oz.; Max. Altitude: 1100 ft. (335 m). Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7.

282022 [I] Kit ..... **\$17.95** or **\$17.05** ea./3+

280084 [I] Bulk Pack of 12 ..... **\$107.95** or **\$102.55** ea./3+

**PLEASE NOTE: Rocketry is a hazardous activity and an experienced counselor should be in charge.**

**TRANSPORTATION**    **ROCKETS**



**KELVIN® EDUCATIONAL**



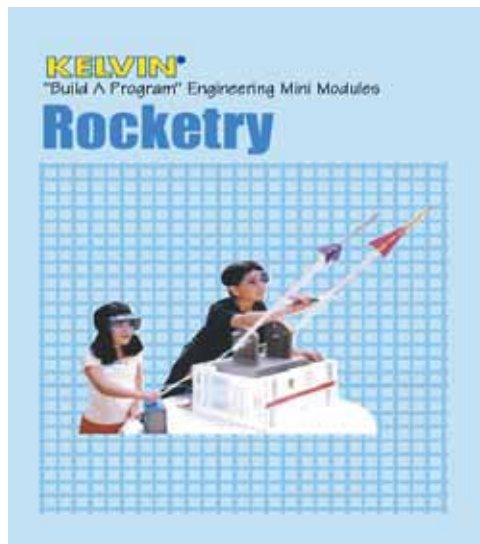
**EDC Design It!™ Straw Rockets Guide**

Launch a straw like a toy rocket by blowing. By using a sandwich bag propulsion system, students test different kinds of fins while trying to refine their toy rockets so that they will hit targets consistently.



651816 ..... **\$9.95** or **\$8.95** ea./10+

Find More **DESIGN IT!™ GUIDES** in the **TEACHER RESOURCES** chapter on pg. **TE2**



**KELVIN® Rocketry Design 1**

Design, build, and test a rocket powered by compressed air. Module includes: Dual Paper Launcher, Portable Air Compressor, Pre-printed Body Tube, Foam for Nose Cones, DesignGrid, "To The Moon" Video.

841648 ELM, MS, HS ..... **\$695**

**KELVIN® Rocketry Design 2: Solid Fuel Rockets**

Build a model rocket powered by solid fuel. Module includes: Launch Pad, Launch Controller, Body Tubes, Engine Tubes, Hooks, Fin Material, Balsa, Parachute Materials and Launch Lugs.

841649 ELM, MS, HS ..... **\$495**

Find More **ENGINEERING MINI MODULES** in the **TEACHER RESOURCES** chapter on pg. **TE8**

**Kre8®**  
DESIGN & MAKE SYSTEM

**KELVIN® Kre8® Mars Rover**

This version of the NASA Mars Rover is steerable! Steers with remote controller—right, left, forward, and backward. This project gets students thinking about exploring distant planets without being there. How could we communicate with a robot so far away and have it complete important tasks to determine if life could be sustained there?

In addition to touching upon the science behind space exploration, students will learn about electronics, robotic control, problem-solving and teamwork. Requires a 'AA' battery (sold separately).

**Kre8® Mars Rover Kit with Assembled Manual Controller**  
283658 Kit ..... **\$29.95** or **\$24.95** ea./5+ or **\$19.95** ea./10+  
283642 Bulk Pack for 10 Students..... **\$179.95**

**As low as \$17.99 per student**



**As Low As**

**\$17<sup>99</sup>**

**Per Student**

**Find More Kre8® Projects in the Kre8® chapter.**



**As Low As**

**\$26<sup>50</sup>**

**Per Student**

**KELVIN® Kre8® Curiosity Rover**

Make your Mars Rover and steer it right, left, forwards and backwards. Like the real vehicle on Mars the front excavator and vision arms can be moved. owered by two motors and controlled by pre-assembled controller via a ribbon cable. Requires one 'AA' battery. Scissors, office 'hole punch' and clear tape required to make the card top.

283771 Kit w/ Assembled Manual Controller ..... **\$31.95** or **\$30.95** ea./5+ or **\$28.75** ea./10+  
283772 Bulk Pack for 10 Students ..... **\$265**

**As low as \$26.50 per student**