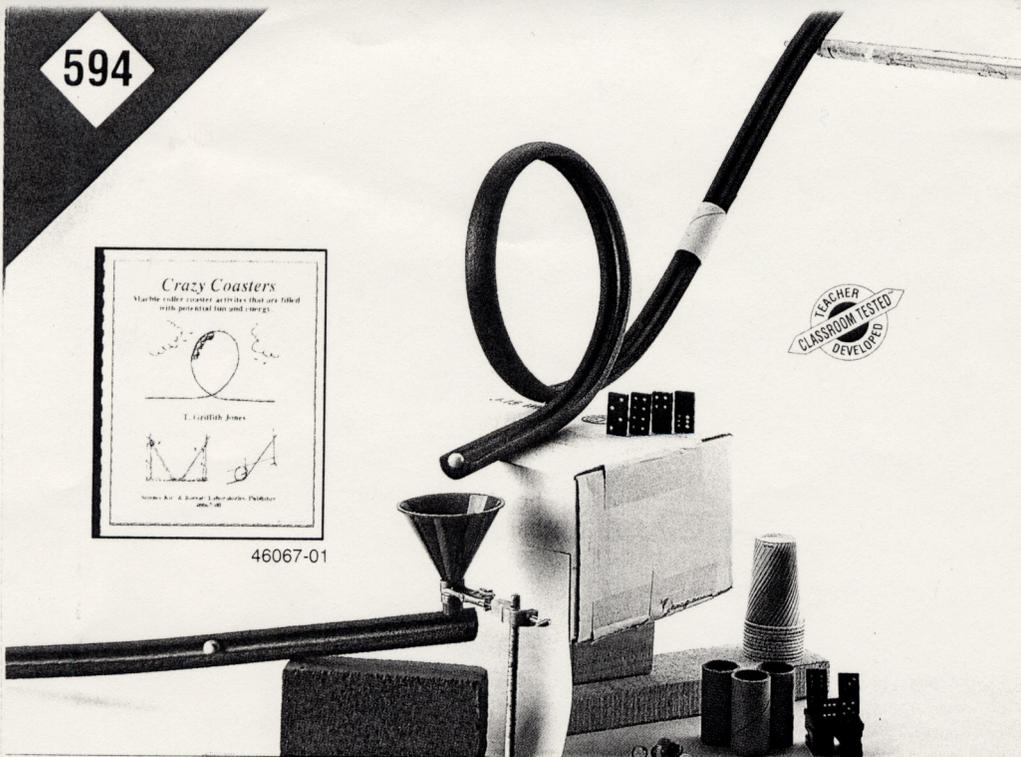


46067-01



### CRAZY COASTER

46067-00

Kit with Teacher's Guide

46067-00

\$109.00

46067-01

Teacher's Guide Only

\$23.50

Teach students about energy and motion with this popular kit, which lets students build their own model roller coasters anywhere in your classroom — all you need is masking tape. Developed by physics teacher Griff Jones, the activity helps students understand how potential energy is transformed into kinetic energy as the marble rolls through loops, curves and valleys. For advanced students, you can introduce concepts such as centripetal force and friction.

*Includes:* track, marbles, dominoes, paper cups, funnels and a **teacher's guide** with background information and activities. The teacher's guide can also be purchased separately.

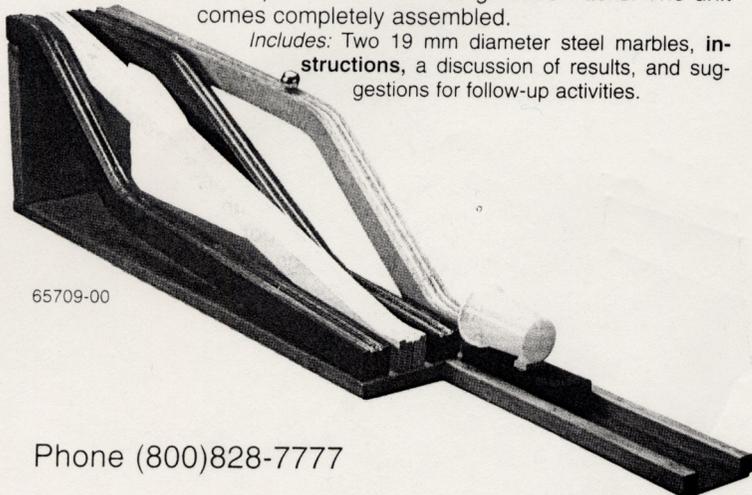
### POTENTIAL-KINETIC ENERGY TRACKS

65709-00

\$88.95

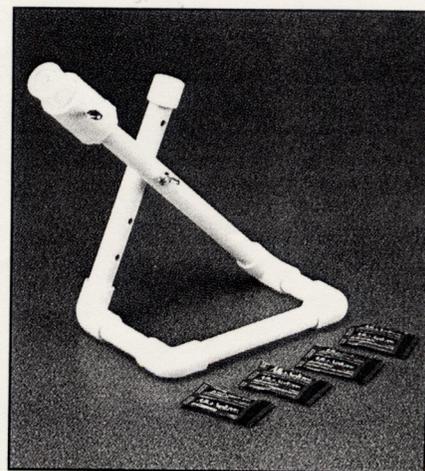
Here's a new twist to inclined plane experiments — marble races, down this four track roller coaster. Each track is the same height, but has a different slope. Students calculate the average velocity of each marble as it travels down the slope. By marking the place on the floor where the marbles land, students also learn that no matter what the velocity, if objects of equal mass receive the same amount of potential energy (height), they will produce the same amount of kinetic energy (distance traveled). The catch-cup fits into a separate track with measurements marked on one side. No matter which of the four tracks a marble is caught from, the force of the moving marble causes the catch-cup to slide back the same distance in its track. The slide track is 37 cm long. The four-track unit measures 86 x 28 cm and is made of varnished hardwood, with flexible plastic 19 mm wide grooved tracks. The unit comes completely assembled.

*Includes:* Two 19 mm diameter steel marbles, **instructions**, a discussion of results, and suggestions for follow-up activities.



65709-00

Phone (800)828-7777



### EFFERVESCENT LAUNCHER

47689-00

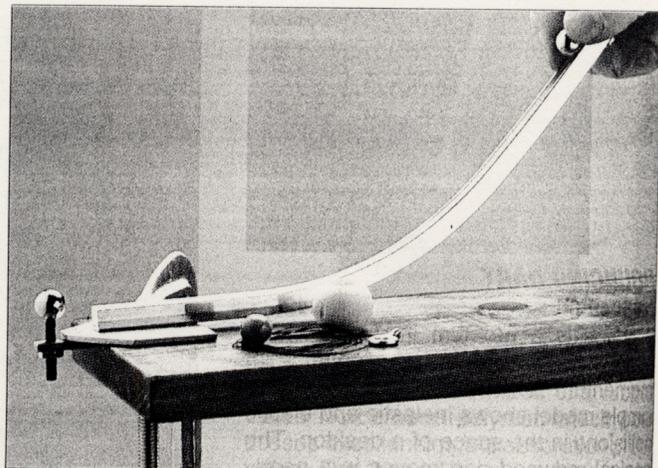
47689-00

\$16.75

The Effervescent Launcher is a bubbly, high-flying lab that engages students in the process of discovery as it reveals the importance of using the scientific method, record keeping, and controlling variables when conducting any experiment. An angle is selected, an effervescent tablet and water are placed in the PVC launcher, and a 35mm film canister is loaded. The CO<sub>2</sub> gas generated blasts the canister's top into the sky like a rocket! Change variables, hypothesize, and repeat! Developed by Kenneth W. Carlson.

*Includes:* Launcher, **instructions**, effervescent tablets.

Required but not included: 35mm film canisters.



### COLLISION IN TWO DIMENSIONS

66448-00

66448-00

\$19.95

This inexpensive apparatus is a rich source of data for studying conservation of momentum and conservation of kinetic energy in collisions. It is also used to compare elastic and inelastic collisions. A curved metal track and an adjustable target support form the core of the unit. It is supplied with two steel balls, a glass ball, and a plumb bob. It requires a C-clamp for mounting on a table.