Wind-Up Vehicles

Spring-powered cars campers design and reinvent.



SCREEN-FREE | AGES 7 TO 14 | ABOUT 45 MIN | MAKE AND KEEP

WHAT PARTICIPANTS MAKE

A series of foam-and-straw vehicles that zoom on a wind-up spring motor.

HOW IT WORKS

Campers assemble a wind-up drivetrain that turns stored spring energy into rolling motion, then take it apart and reinvent it with their own choice of wheels, axles, and wedges. It is an open-ended way to explore potential and kinetic energy, axles, and troubleshooting.

CAMPERS EXPLORE

Elastic potential energy; energy transfer (spring to motion); axle and wheel mechanics; iterative open-ended design; troubleshooting drivetrains







PACK SIZES

PACK	CAMPERS	SKU
Small Group Pack	10	G4 WUPV 010
Class Pack	25	CL WUPV 025

Every camper gets an individual reclosable kit with a printed visual guide. Scissors optional.

Educator video 6:49 min

Educator guide

Standards connections (from the educator guide): NGSS K-PS2-1, K-2-ETS1-2, 3-PS2-1, 3-5-ETS1-3, MS-PS3-5, MS-ETS1-3. Common Core RI.K-2.7, SL.K-2.1, RI.3-5.3, W.3-5.2, RST.6-8.3, SL.6-8.1, 2.MD.A.1, K.G.A.1, 3.MD.B.4, 4.MD.A.2, 6.RP.A.3, 7.SP.B.4.