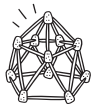
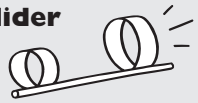
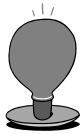
ZOOMsci™

ENGINEERING

ZOOMsci Activities	Try It Out	ZOOMon: Change One Variable	Share Your Results	Keep ZOOMing
Balloon Flinker* 	Weight a helium balloon so it neither floats nor sinks.	• Weight of cup • Length of string	• What happened with your first design? • What did you change to get your balloon to flink?	Keep experimenting with floating and sinking: • Flinker • Boats Afloat
Egg Bungee Jump 	Invent a bungee jump for an egg.	• Length of nylon • Type of nylon • Weight of egg	• What design did you use? • What made your design work? • If you had an "eggsplosion," why?	Keep experimenting with technological design: • Financial Support • Straw Bridge
Flinker* 	Design an object that doesn't float or sink—it "flinks."	• Type of liquid • Type of object	• How long did your object flink? • What made your object neither float nor sink? Why? • How can you make it flink longer?	Experiment further with buoyancy: • Dancing Raisins • Pour Water in Air
Gumdrop Dome* 	Build a geodesic dome with toothpicks and gumdrops.	• Number of toothpicks in the base • Shape of sides (square or triangular)	• How many triangles are in your dome? • Compare a dome with square sides and a dome with triangular sides. Which is more stable?	Make a large dome from newspaper: • Geodesic Dome
Hoop Glider 	Create a glider that travels the longest distance possible.	• Type of paper • How you design your glider	• How far did your hoop glider travel? • How can you make it travel farther?	Make more things that fly: • Delta Wing Flyer • Glider
Hovercraft* 	Make a vehicle that glides on a cushion of air.	• Size of holes in film canister and plate • Size of plate • Size of balloon	• Which parts help the hovercraft move? Which parts slow it down? • If your hovercraft didn't work the first time, how did you fix it?	Experiment further with air: • Air Lift • Hoop Glider

* indicates Spanish version available