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August 2012

Ideas for physical science class:

* Work hard to connect the concepts to daily experiences and to apply them to life somehow
* Try to do one demonstration or project per week
* Have students work in teams to make an egg launcher
* Have a bridge-building contest with popsicle sticks
* Teams of two make their own electric motor

Note: Because of copyright issues, the following projects only appear as blurbs. Visit the links to view the entire project.

# make your own mousetrap catapult!Mousetrap Marshmallow Catapult

Get ready to launch marshmallows across the room with the power of a mousetrap! Print out our [**Marshmallow Catapult instruction sheet**](http://www.hometrainingtools.com/images/art/Catapult.pdf) with step-by-step pictures.

View the plan at <http://www.hometrainingtools.com/a/mousetrap-physics-newsletter>

# Balloon Jet

This is a very simple rocket that demonstrates the most basic principle of rocketry: how pressurized gas creates *thrust.*

View the plan at <http://www.hometrainingtools.com/a/space-exploration-newsletter>

# BalloonCarBalloon Rocket Car + Video

<<[**Force & Motion Products**](http://www.hometrainingtools.com/force-motion/c/73/)

A rocket is simply a chamber filled with pressurized gas. A small opening called a*nozzle*allows the air to escape, causing *thrust*that propels the rocket. You can demonstrate this when you blow up a balloon and let it go without tying it off. The balloon will fly through the air as all the air inside escapes.

View the plan at <http://www.hometrainingtools.com/a/balloon-rocket-car-project/>

# Egg in a Bottle + VideoHard-boiled egg in a bottle experiment

View the plan at <http://www.hometrainingtools.com/a/egg-in-bottle-project>

# Build a Rubber Band Car

A stretched rubber band is a great source of **elastic potential energy**. When released, that energy is converted to **kinetic (motion) energy** as the rubber band snaps back to its original size and shape. How can we tap into this energy source? Let's try using it to power a small car! (**Adult supervision required**.)

View the project at <http://www.hometrainingtools.com/a/rubberband-car-project>