HOME SCIENCE TOOLS
THE GATEWAY TO DISCOVERY

POWERED BY THE SUN

Do you know that we can power many objects just from the energy from the sun? Solar energy is a fascinating alternative energy and you can experiment with it in many ways.

SOLAR CAR: THE SUN MAKES IT GO GO GO

Question for kids: How fast can your solar car go?

Learn how to harness energy from the sun to propel a car. With this experiment, we'll build a solar-powered car and find ways to make it run efficiently. Can you imagine driving your own person-sized solar vehicle? What other machines could be powered by the sun?

WHAT IT TAKES

MATERIALS FOR THIS ACTIVITY:

- Solar Race Car Experiment Kit
- Solar Cell, 0.5 volt, 500 ma (optional)
- Mini Gears Set (optional)
- Mini Pulley Set (optional)

HOW

FOLLOW THIS EASY, STEP-BY-STEP ACTIVITY

In this activity, kids will experiment using STEM concepts to design and build their own solar-powered car. They'll also make different versions to test for maximum power efficiency.

1. Design and sketch what you want your car to look like. Start building!
2. Use either the rubber bands as a pulley or the gears to transfer energy from the motor to the wheels.
3. Power the motor with the solar cell.
4. Experiment with different designs and configurations to determine the most efficient use of the solar energy.

SHOP

BUY EVERYTHING YOU NEED FOR THIS ACTIVITY IN ONE PLACE

See all of these products and more on **one handy shopping page**.

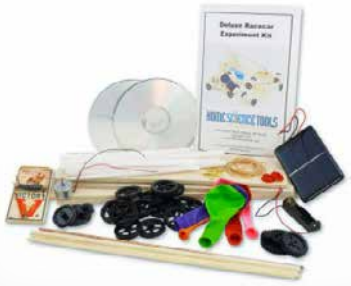
Solar Race Car Experiment Kit
A full kit to make your car

Solar Cell
Extra cell for more power

Mini Gears Set
Customize with more gears

WANT MORE?

Time to get serious!



Deluxe Build Your Own Racer Kit
Make cars powered by multiple energy sources
See all related products

TIPS

A FEW TIPS TO HELP YOU OUT

- Hot glue works well to connect parts of the car together.
- Use the battery holder to test your car or for use on a cloudy day.
- The smallest gear or pulley can be pressed onto the axle of the motor.
- Apply some cooking oil to the inside of the gear or pulley before pressing it onto the axle.
- Position the axle square to the racer body to prevent turning and wasted energy.
- Use trail-and-error, play around with different designs and find what works best, like a real scientist!

MAKE IT YOUR OWN

GO BEYOND THE ACTIVITY!

- Which drive system is most effective for your car design: gear drive or pulley drive?
- Can you design a compound gear drive using the largest gear to make your solar racer go even faster?
- Can you design a compound pulley drive system using the largest pulley?
- How would you build an adjustable solar cell mount to optimize the solar cell position for different races?

HELP

NEED HELP WITH THIS ACTIVITY?

Call 1-800-860-6272 or email service@homesciencetools.com.