

Massachusetts 4-H Summer of Science Car Competition

Sponsored by the MA 4-H Science Program

Locations: (See local fair book for further information)

August 26th Worcester County 4-H Fair in Spencer, MA – 3pm Andrews Hall

September 17th September Cracker Barrel fair in Wrentham, MA

New for 2017:

- Two Designs to Pick from: gravity car or battery powered
- Make-it Shop Worcester County Fair Saturday at 10am Wells-William Arena (Cow Barn)Rec. Room

Basic Car Design Goal: Design a car to travel the furthest without going off course.

Battery Powered Car Design Goal: Design a car using basic parts and recycled materials to travel the fastest under battery power using just 2-AA batteries.

Along with speed, cars will be judged on best use of recycled materials, overall design, gear designs and creativity. The day of the event solar panels will be available after the race for participants to try converting their car to solar power if conditions allow it. (Panels are 267mm x 127mm x 3mm)

Resources:

Basic Car Design (Gravity Car) – <http://cdn.4-h.org/wp-content/uploads/2016/02/4-H-Robotics-Curriculum-Clipmobile-Challenge.pdf>

Battery Power Car Design - (*Apeiron Institute has some resources to help in understanding gears, axles along with solar car specific resources http://sustainableschools.apeiron.org/?page_id=58)

Materials Needed: *Starter kits available at workshop or make-it shop - \$5 for basic car design and \$10 additional for battery powered expansion pack and checks should be made payable to the Massachusetts 4-H Foundation.

If you are interested in judging please contact Kim Pond, MA 4-H SET Liaison at kima@umext.umass.edu or 508-831-1223 x114



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Massachusetts 4-H Summer of Science Car Registration

Team/Name: _____ (Gravity) ____ (Battery) ____

Club/Group: _____ County: _____

Address: _____

Contact: _____ Email: _____

Names & Ages: 8+ judged & cloverbuds displayed (Age as of January 1st)

_____	_____
_____	_____
_____	_____
_____	_____

Office Use:

_____ Age Division

_____ Class

Judging Criteria:

	Excellent	Impressive	Good	Fair	Needs Improvement
Chassis (How well constructed is the frame? Is it a good combination of flexibility & Strength?)					
Wheels/Axles (How well are the wheels, axles, bearings & Bushings Designed and built?)					
Craftsmanship (How well constructed is the car overall?)					
Creativity (How much creativity is shown?)					
Materials (Have they used unusual materials? Or used in an innovative way? Were recycled or earth-friendly materials used?)					
Transmission: (How well mounted is the motor and how efficiently is power transmitted to the wheels?) - Battery Powered Only					

____ Distance

____ Time

_____ Placement



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