



DAISIES TO JUNIORS GIRL SCOUT PROGRAMS



Marshall Steam Museum
at Auburn Heights

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ABOUT US

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The Marshall Steam Museum features the world's largest collection of operating Stanley steam cars! Our collection also includes a 1914 Ford Model T, a 1916 electric car, and two 1930s Packards, plus the 1/8-size Auburn Valley Railroad with two coal-fired steam locomotives and a diesel-style train as well as Lionel electric trains display and so much more.

Nestled in the small town of Yorklyn, Delaware, the museum is operated by the Friends of Auburn Heights, Inc. a 501(c)3 non-profit.

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Education@auburnheights.org

Phone Number

302-239-2385

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Auburn Heights
3000 Creek Road
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AUTOMOTIVE ENGINEERING BADGE

DAISIES

Daisies looking to complete the Automotive Engineering badge series can do it in one day! You will get an introduction to car manufacturing, design, and engineering while among automobiles of the past. Components of the program include learning the parts of vehicles, sketch, design & test prototypes, creating engineering plans, and how an assembly line works!

Program features:

- Viewing antique autos in the Marshall Steam Museum
- Build craft with recycled materials
- Games and movement activities

We recommend combining this with the Mechanical Engineering badge to complete in a day!

See Price List (page 9) for cost and capacity



BADGE INCLUDES:

Automotive 1: Design

Buckle up and explore how automotive designers imagine and make plans for a new vehicle, like a car or truck. Then, design your own!

1. Learn about early auto design from our collection
2. Discover different vehicle types with a fun “Animobiles” mashup game
3. Sketch and design your concept for a vehicle

When you've earned this badge, you'll know how people design cars.

Automotive 2: Engineering

Discover how automotive engineers turn ideas into real cars! Then build, test, and improve a model of a vehicle.

1. Explore the engineering process.
2. Build a vehicle prototype out of recycled materials.

When you've earned this badge, you'll know how automotive engineers work together to build cars and other vehicles.

Automotive 3: Manufacturing

Fire your engines and find out how automotive manufacturers build, and test vehicles to make sure they're ready for the road.

1. Explore efficient manufacturing and assembly lines
2. Create an assembly line by playing a fun game!

When you've earned this badge, you'll know how manufacturers assemble high-quality vehicles.

AUTOMOTIVE ENGINEERING BADGE BROWNIES

Brownies looking to complete the Automotive Engineering badge series can do it in one day! You will get an introduction to car manufacturing, design, and engineering while among automobiles of the past. Components of the program include learning the engineering process, creating their own vehicle design and discovering firsthand how an assembly line works!

Program features:

- Interactive tour of the Marshall Steam Museum
- Hands-on activities with recycled materials

We recommend combining this with the Mechanical Engineering badge to complete in a day!

See Price List (page 9) for cost and capacity



Assembly line game

BADGE INCLUDES:

Automotive 1: Design

Find out how automotive designers come up with ideas for new vehicles. Then take the wheel and design your own!

1. Explore how people of the past traveled
2. Using toy cars, understand the differences between cars over time
3. Sculpt or sketch your improvements to a toy car

When you've earned this badge, you'll know how to design, sketch, and sculpt a vehicle.

Automotive 2: Engineering

Get in gear and explore how automotive engineers build vehicles.

1. Discover and choose your vehicle's design criteria.
2. Be inspired by vehicles of the past or design something for the future
3. Build a vehicle prototype out of recycled materials.
4. Test and revise your vehicle prototype.

When you've earned this badge, you'll know how automotive engineers plan, build, test, and improve vehicles.

Automotive 3: Manufacturing

Experience the importance of having a plan, and discover how manufacturers build lots of vehicles that are safe and well made!

1. Experience and learn about the manufacturing process by exploring our automobile collection
2. Play a fun game that teaches about the assembly line process

When you've earned this badge, you'll know how vehicles are manufactured in a factory.

AUTOMOTIVE ENGINEERING BADGE JUNIORS

Juniors looking to complete the Automotive Engineering badge series can do it in one day! If you're ready to take your car smarts to the next level, explore the future of mobility and automotive design. You will learn about vehicle design and market research, all while creating a car inspired by the past or looking towards the future.

Program features:

- Interactive tour of the Marshall Steam Museum
- Viewing antique autos
- Learn about historic figure Alice Ramsey

We recommend combining this with the Mechanical Engineering badge to complete in a day!

See Price List (page 9) for cost and capacity



Costumed interpreter

BADGE INCLUDES:

Automotive 1: Design

Do you want to take a ride in your dream car? Before you can do that, you need to design it!

1. Explore travel across time with an interactive game about Alice Ramsey, the first woman to drive across the U.S. in a car!
2. Using toy cars and vintage ads, witness changes in style over time
3. Discover how to improve a vehicle by sketching or sculpting a model.

When you've earned this badge, you'll know about innovation and market research. You'll know how to sketch and sculpt a vehicle.

Automotive 2: Engineering

Find out how automotive engineers build and test vehicles by creating your own out of recycled materials.

1. Learn about different types of vehicles, and discover early gas, steam and electric cars in the museum!
2. Build a vehicle prototype out of recycled materials.
3. Test and revise your vehicle prototype.
4. Share your vehicle prototype and testing results.

When you've earned this badge, you'll know how to use the Design Thinking Process to plan, build, test, and improve prototypes.

Automotive 3: Manufacturing

Explore how automotive manufacturers build lots of vehicles without wasting time and how they make sure the vehicles are ready for the road!

1. Experience the manufacturing process and discover how cars in the past were made.
2. Play a fun game about the assembly line process and brainstorm together how to make the process more efficient.

When you've earned this badge, you'll know how vehicles are manufactured.

MECHANICAL ENGINEERING

AUTOMOBILES

What makes a car go? And how can we make it go faster? Get a crash course in designing model cars (utilizing recycled materials!) and figure out how to make them move on different surfaces.

We recommend combining this badge with the Automotive Engineering badge series to complete in a day!

See Price List (page 9) for cost and capacity



Model Car: Daisy

Learn about mechanical engineering from model cars, including building your own!

1. Use toy cars to test the friction of different surfaces
2. Fast, faster, fastest! Test out different styles of toy cars
3. Build a “clothespin car” and test it out

When you’ve earned this badge, you’ll have learned about friction by testing model cars. You will know how to design and test new things you created.

Race Car: Brownie

Design, build, and test your own race car to explore how science can make a faster race car!

1. Learn how design can affect speed
2. Design and build your race car
3. Design your racetrack
4. Conduct a fair test and record results
5. Share what you learned

When you’ve earned this badge, you’ll have designed a race car and a race track and carried out “fair tests” to learn how design affects speed.

Balloon Car: Junior

Design a car that runs on air!

1. Learn about potential and kinetic energy
2. Design and build a balloon car or a “puff mobile”
3. Test your air-powered car
4. Analyze and share results
5. Brainstorm ways to improve your design

When you’ve earned this badge, you’ll know how to engineer an air-powered car and understand potential energy, kinetic energy, and jet propulsion.

JOURNEY

THINK LIKE AN ENGINEER

Learn how to solve problems by thinking like an engineer! Through fun, hands-on activities such as designing a boat that floats or building a bridge to support weight, Scouts will discover the design process firsthand and start to see themselves as engineers!

See Price List (page 9) for cost and capacity



Boat floating activity

Journey: Daisy

What floats your boat?

1. Perform experiments on what objects float or sink
2. Create a boat using recycled corks and other materials
3. Will your boat float? Test it out in the water!

When you've earned this badge, you'll have learned how engineers use design thinking to solve problems.

Journey: Brownie

Can you build a boat that floats AND holds weight?

1. Discover different types of boats and what materials make them float
2. Perform experiments on what objects float or sink
3. Using recycled materials, create a boat that floats AND hold weight!

When you've earned this badge, you'll have learned how engineers use design thinking to solve problems.

Combine with the Inventor badge to complete both in one day!

Journey: Junior

Can you build a bridge

1. Learn about and recreate different types of bridges
2. Be inspired to design a bridge that can hold weight
3. Test, analyze and share results
4. Brainstorm ways to improve your design

When you've earned this badge, you'll have an understanding of how engineers design structures to solve real world problems and keep people safe.

BROWNIE INVENTOR BADGE

Find out how inventors make stuff—and become an inventor yourself!

- Warm up your inventor brain with a fun game and activity
- Learn how to brainstorm and design a prototype to solve a problem
- Share your invention to the group!

When you've earned this badge, you'll know how to think like an inventor.

We recommend combining this badge with the Journey: Think Like an Engineer badge to complete in a day!

See Price List (page 9) for cost and capacity



Auburn Valley State Park

Our partners at Auburn Valley State Park can hold various badge opportunities throughout the year! Currently they are offering the Juniors Geocaching and Brownies My Family Story badges.

Reach out to Teresa Pierce, Interpretive Programs Manager, for more information and scheduling a time at Teresa.pierce@delaware.gov.

Learn more about Auburn Valley State Park at destateparks.com/History/AuburnValley



FUN PATCH

Fun Patch: A Cross Country Road Trip

What travel was like for the first woman to drive an automobile across the U.S. in 1909? Discover Alice Ramsey's story by going on a road trip! Unpack her travel suitcase, select a car for the journey and see if you can make the trip with a fun game. Join us for a cross-country adventure! Scouts who complete this will earn a fun patch.

Virtual option:

Cost: \$5/scout

Capacity: Up to 30 participants

Length: 1 hour

Program features:

- Historic artifact exploration
- Chance to play a “choose your own adventure” virtual game about Alice’s journey
- Activity packet and access to virtual game

In-Person:

\$10/scout; \$8/adults

Capacity: Up to 20 participants

Length: 1 hour

Program features:

- Includes admission and time to explore the Marshall Steam Museum
- Chance to play a “choose your own adventure” game
- Historic artifact exploration
- Hands-on activity



PRICE LIST

All programs require a minimum number of 8 scouts with a maximum capacity of 20. If less than 8 show up to a booked program, you will be required to pay the balance. Booking includes time to explore the Marshall Steam Museum.

Please contact us to book your program or for more information:

Office: 302-239-2385 **Email** education@auburnheights.org

Online Form: www.auburnheights.org/learn/scouting **Website:** www.auburnheights.org

Single Badge Programs	Program Length	Scout	Adult
Daisy (Mechanical Engineering: Auto)	1 hour	\$15	\$8
Daisy (Journey: Think Like an Engineer)	1 1/2 hours	\$20	\$8
Brownie (Mechanical Engineer: Auto)	1 1/2 hours	\$20	\$8
Brownie (Journey: Think Like an Engineer)	1 1/2 hours	\$20	\$8
Brownie (Inventor)	1 1/2 hours	\$20	\$8
Junior (Mechanical Engineer: Auto)	1 1/2 hours	\$20	\$8
Junior (Journey: Think Like an Engineer)	2 hours	\$25	\$8
Fun Patch: Cross Country Road Trip	1 hour	\$15	\$8

Automotive Engineering: All Three Badges	Program Length	Scout	Adult
Daisy Program	1 1/2 hours	\$20	\$8
Brownie Program	2 hours	\$25	\$8
Junior Program	2 hours	\$25	\$8

Combo Badge Series	Program Length	Scout	Adult
Daisy Program (Auto & Mechanical Engineering)	2 hours	\$25	\$8
Brownie Program (Auto & Mechanical Engineering)	3 hours	\$35	\$8
Brownie Program (Journey: Think Engineer & Inventor)	2 hours	\$25	\$8
Junior Program (Auto & Mechanical Engineering)	3 hours	\$35	\$8

ADD ONS

Make the most of your time with us by adding on something special. Please note that each add-on will extend your time with us by an additional 30—60 minutes.

- Tour of the historic Marshall mansion, home to three generations, and part of Auburn Valley State Park. Cost is \$8 per adult and \$4 per scout.
- Take a scenic train ride on our 1/8th-size railroad! Cost is \$280 for up to 30 participants.

All rides are taken at the rider's risk and are weather-dependent. In case of heavy rain, thunder, etc., the Marshall Steam Museum staff has the right to cancel train rides.



GET INVOLVED

At the Marshall Steam Museum, a 501c3 non-profit, we also offer volunteer opportunities for your troop! These opportunities can be one-time or ongoing. We are always looking for help and would love to have your troop involved. Please reach out to our Director of Public Programs (education@auburnheights.org) if you are interested or want to learn more.

Steamin' Days

The signature event for our site! These happen the first Sundays June—November and attract over 300 people each time. At this event guests can experience what travel was like at the dawn of the automotive age by climbing into an antique automobile, taking a ride on our small-scale train, exploring the museum and more!

Potential roles for your scouts:

- Assisting with facilitating kids activities
- Helping park cars
- Street crossing and safety

Egg Hunts

This annual event occurs on the Friday and Saturday of Easter weekend. Here guests can enjoy egg hunts with the backdrop of our picturesque site. This popular event sells out every time! Potential roles for your scouts:

- Stuffing plastic eggs with candy and toys (in advance of the event)
- Monitor age groups during the hunt; help hide eggs between groups.
- Sorting through returned plastic eggs (post-event)

Reach Out!

We often have other opportunities that pop up throughout the year. Connect with us to discuss some possibilities!

