

# The 100-acre Museum



**M**ontshire Museum's 100-acre site is rich with opportunities for exploring and learning. We invite you to step outside and discover a variety of experiences and more than 50 interactive opportunities we've created throughout the landscape, beginning with Science Park.

When thinking of the Montshire, an array of images come to mind: giant bubbles rising toward the ceiling, the illusive fog billowing past the model village, or eager participants engaged in a Science Discovery Lab activity.

The Museum is more than what's going on inside. Towards the river, just beyond Science Park, you can experience the Quinn Nature Preserve: a two-acre meadow and a demonstration site for native grasses, a riverside environment for songbirds and other animals, and the solar-powered Meadow Sounds Kiosk.

Meander through a grove of cool, dark hemlock, and along the edge of a lagoon of the Connecticut River. Linger at an exhibit on the history of stonewalls, or stop on the deck overlooking Blood Brook's turbulent entrance into the lagoon to discover more about the natural history of salmon.

When walking along the Ridge Trail, take time to observe the natural systems of northern New England—listen for songbirds, and feel the difference between the bark of a birch and an oak. Perhaps you'll spot some wildlife or discover a plant you've never noticed before in the Woodland Garden.

When you step back inside the Museum building, take a moment to compare the eggs and nests on display with the birds you saw outdoors. Take a closer look at the fish and turtles that call this area home. The connections between many of the Museum's indoor exhibits and the outdoor experiences will broaden your understanding of this special place.



# A Warm Welcome



## Dear Friends,

People often ask me what makes the Montshire unique. One of the key factors is that we are a 100-acre museum—and that is something few communities can boast. Montshire is truly fortunate to have a beautiful riverfront property as well as a community of supporters like you who are willing to invest in making our outdoor landscape as interesting, educational, and deeply compelling as the indoor exhibit environment.

This summer marks 10 years since *Science Park* opened. Since that time, the strategic investment in our outdoor landscape has intensified. Whether you're interested in learning about native or medicinal plants, taking a serene and scenic walk out to the *Migration Station*, joining your children in lively experimentation with water, or enjoying lunch in the *Hughes Pavilion*, we have something for everyone.

Come enjoy a day outside at the Museum. I hope to see you here soon.

David Goudy  
Executive Director

Studies show that science centers like the Montshire offer a wide range of educational and societal benefits. Disadvantaged people, however, often have limited access to the learning experiences found in museums.

The Montshire has a long history of welcoming low-income and underserved families to the Museum. For nearly two decades, we have offered free admission to thousands of people each year. We're pleased to announce that these efforts are now part of a new program we've titled "Warm Welcome." This new identity brings together a variety of initiatives that are designed to expand Museum access to underprivileged families, allowing us to increase awareness of the program, funding, and participation. "Warm Welcome" includes:

- ▶ Free admission passes distributed through more than 110 human service agencies
- ▶ Scholarships for Summer Camp and other education programs
- ▶ Reduced fees for schools
- ▶ Free or reduced cost memberships

As another way to strengthen our community, the Montshire also provides support and Museum access to other charitable organizations. We offer complimentary use of our program room for educational purposes, and we donate free admission passes for their special events and fundraising activities.

Charitable gifts make these initiatives possible. You can support Montshire's "Warm Welcome" program by renewing your donor-level membership, making a special gift, or participating in "Fund a Need" at Montshire's annual auction on May 4. Thank you.

“Forty years of steadily accumulating research show that (out-of-school) learning opportunities ... are major predictors of children's development, learning and educational achievement.”

—Harvard Family  
Research Project

## NEWS AND NOTES

### NEW TO THE MUSEUM

Please join us in welcoming [Amy Lester](#) as our new Development Assistant. She comes to the Montshire having recently completed a two-year fellowship in education and collections management at the Shelburne Museum. A 2008 graduate of Drew University, Amy



brings valuable development experience and a deep interest in museums. "I'm very excited to be part of a team that works to bring fun and engaging science programs and exhibits to people of all ages!"

### GRANTS AND SPECIAL PROJECTS

**Addressing Youth Risk Behavior:** Entering the third year of a five-year health education outreach project, Montshire is beginning to develop curriculum modules on how the media influences adolescent behavior. Working with teachers and students in grades five through eight at 13 Vermont and New Hampshire schools, Montshire's professional educators aim to increase students' knowledge of risky choices, and ultimately to change behavior. The prior two years of this project were focused on nutrition and food choices, and sun safety. Each of these topics were chosen because they are critical to adolescents at a time when important personal decisions may impact their health and well being. This project is funded by a grant from the National Institutes of Health and incorporates research taking place at Dartmouth Medical School and Dartmouth College.

**The Dynamic Earth:** The Montshire Museum is making great strides in its NASA-funded project, *The Dynamic Earth: You Have to See it to Believe it!* This project educates families, teachers, and individual students about the Earth's dynamic processes through exhibits, workshops, and demonstrations in the Museum's galleries. Our focus this year is on the rock cycle: formation, change over time, plate tectonics, and even erosion. Watch for new activities at the Science Discovery Lab, and for new workshops available to your school.

### LUNCH THIS SUMMER IN THE HUGHES PAVILION

Enjoy lunch this summer in the Hughes Pavilion overlooking Science Park. Delicious sandwiches, snacks, beverages, and ice-cream are available for purchase (early June–Labor Day), or bring your own picnic.

### 4TH ANNUAL MONTSHIRE PHOTO CONTEST

Enter the Fourth Annual Montshire Photo Contest. One winner will be selected in each of the following categories:

- ▶ 1. Doing Science
- ▶ 2. Natural History and Scientific Phenomena
- ▶ 3. Favorite Places or Exhibits



**Deadline:** July 31, 2012. All entries must be photographed on Montshire property. Visit [www.montshire.org/photocontest](http://www.montshire.org/photocontest)

**ALL ABOARD** July 12–September 2, Thursdays–Sundays. Climb aboard the White River Flyer at Union Depot in White River Junction and hop off at the Montshire. Montshire members receive half-price fares on Friday. Contact Vermont Rail System for more information (800-707-3530, or [www.rail-vt.com](http://www.rail-vt.com)).



SAVE THE DATE

REPORT TO  
THE COMMUNITY:

### Montshire Museum's School Partnership Initiative

*Highlights and Lessons Learned*

Tuesday, May 22, 2012, 4 p.m.

Please join us for a very special report to the community on the progress and impact of Montshire's School Partnership Initiative.

Montshire's Director of Education, Greg DeFrancis, will offer an overview of the School Partnership Initiative, and leaders from Montshire's partner schools will share their experiences and reflections on the impact of the initiative. A reception will follow the formal presentation.

**CHILDREN**

**Homeschool Series: Astronomy**

Thursdays, April 5 & 12  
10:30 a.m.–noon, ages 6–8  
1–2:30 p.m., ages 9–12

This two-part workshop includes engaging activities as we explore daytime astronomy, and learn about the night sky. Members \$40, non-members \$44.\*

**Exploring Digital Photography**

Monday & Tuesday,  
April 16 & 17, 1–4 p.m.

Using the digital camera as our tool, we will experiment with light and motion, and expand our thinking about how we observe the world around us. For children in grades 4–6. Members \$80, non-members \$90.\*

**Color Experiments**

Tuesday, April 17  
10 a.m.–noon

Join us for an exciting morning mixing colors, making colored play-dough, and creating color wheels. For children in grades K–2. Members \$30, non-members \$35.\*

**Young Scientist Program**

Wednesdays, April 25–May 16  
9:30–11:30 a.m., morning session  
1–3 p.m., afternoon session

A 4-week program designed to ignite young children’s curiosity about the physical and natural world with hands-on experiments, fun projects, and individual explorations. For ages 4–6. Members \$110, non-members \$120.\*

**Insect Safari**

Saturday, May 26, 10 a.m.–noon

Join us for a morning full of insects, bugs, and other creepy crawlers. We’ll build our own insect nets, go on a bug collecting ‘safari,’ examine bugs up close, and look at aquatic insects. For children in grades K–2. Members \$35, non-members \$40.\*



**FAMILIES**

**Rockets**

Thursday, April 19  
10:30 a.m.–noon OR 2–3:30 p.m.  
Build a water rocket, then see how high it will fly! We will learn about how rockets move through the air. \$25/family.\*

**Ephemeral Zoo**

Saturday, May 5  
10:30 a.m.–3:30 p.m.

It’s that time of year when the wildflowers bloom, songbirds sing, and amphibians migrate! Here’s your chance to get an upclose look at some of the creatures from

our local marshes and ponds including spotted salamanders, wood frogs, and spring peepers. Participate in special indoor and outdoor activities and hands-on explorations throughout the day.

**MCA Employee Appreciation Day**

Saturday, June 2, 10 a.m.–5 p.m.  
Employees of Montshire Corporate Associates (MCA) are invited to this free day at the Museum. Bring your family and a business ID. Ask at work if your company is an MCA member.

**Super Science Days**

at the Montshire combine some hot topics with really cool activities. 10 a.m.–5 p.m.

- ▶ **Up, Up, and Away!**  
Saturday, July 7
- ▶ **Nature: Up Close and Personal**  
Saturday, July 21
- ▶ **Splash! Exploring Water**  
Saturday, August 4
- ▶ **Microworlds: Investigation of the Very Small**  
Saturday, August 18



Annual EGG DROP CHALLENGE

**Eggs Away!**

Saturday, April 14  
Noon–2 p.m. build a container,  
2 p.m. egg drop begins

Will a raw egg survive the harrowing 18-foot plunge over the second story balcony? The goal of this challenge is to have a raw chicken egg fall approximately six meters onto a hard surface and survive the impact un-cracked. Design a container at home or at the Museum that will protect the egg. Beginning at 2 p.m., it’s “eggs away” as you launch your egg (and container) over the balcony. Free with Museum admission.

**ADULTS**

**Science on Tap**

- ▶ **Sex, Drugs, & Rock & Roll: Exploring the Influences of Teen Risk Behavior**  
Thursday, April 12, 6:30–9 p.m.  
Dr. Rick Gibbons will lead a discussion about the various impacts and influences on teen risk behavior. \$10. Adults 21+

**Following Nature’s Lead: Integrated Landscaping**

Wednesday, April 25, 4:30–6 p.m.  
Learn how native plants promote biodiversity, benefit wildlife habitat, and create a low maintenance landscape. Co-sponsored by the League of Women Voters of the Upper Valley. Instructor: Marilyn Wyzga, Wildlife Educator, NH Fish and Game Department, co-author of *Integrated Landscaping: Following Nature’s Lead*.

\* Requires pre-registration

## SUMMER CAMP

### Wildflowers of New England

Wednesday, May 2, 6–9 p.m.

Sunday, May 6, 9 a.m.–1 p.m.

Saturday, May 12, 9 a.m.–1 p.m.

This three-part course focuses on learning to identify wild plants of New England. Participants will become familiar with family characteristics, growth patterns, habitats, and pollination mechanisms of native wildflowers. Co-sponsored by the New England Wild Flower Society (NEWFS). NEWFS Course Code: BOT3007. Instructor: Chris Matrick, botanist, White Mountain National Forest. Members \$142, non-members \$167.\*

### Coastal Birding and Migration

Thursday, May 10, 7–8:30 p.m. &

Saturday, May 12, 6 a.m.–4 p.m.

This two-part course includes a Thursday evening lecture and a Saturday field trip to Plum Island, Massachusetts, with Vermont Center for Ecostudies (VCE) researcher Kent McFarland. Plum Island is one of the best birding sites to witness the spring warbler migration and observe shorebirds. Members \$130, non-members \$150.\*

### Mountain Birdwatch Training

Saturday, May 12

10 a.m.–1 p.m.

This workshop, led by Mountain Birdwatch Project Director Dr. Judith Scarl will provide you with the knowledge needed to play an active role as a citizen scientist. To register, contact Judith Scarl at [jscarl@vtecostudies.org](mailto:jscarl@vtecostudies.org), or 802-649-1431 x7.\*

### Wild Edibles

Sunday, May 13, 1–5 p.m.

From morels to fiddleheads, begin your search for wild foods this spring with renowned local experts Nova Kim and Les Hook. The class includes fieldwork and discussions targeted to participants' interests, and a seasonal guide to wild



## Where Learning is Part of the Fun!

Montshire Summer Camp—provides the perfect setting for children to explore, investigate, and discover science and nature. This year's program includes nine exciting camps designed for children in preschool to those entering 8th grade. Two new camps, **Tinkering with Electrons** and **Discover Field Biology** are bound to engage youth entering grades 6–8.

Detailed camp descriptions and registration information is available online at [montshire.org](http://montshire.org). You'll notice camps are arranged by your child's age/grade they are entering next fall. You'll find several camps available for each grade level. **Preschool Nature Camp**, **Outdoor Discovery Camp** and **Montshire Explorers** offer different topics (indicated with an A, B, or C) allowing you to enroll in multiple sessions.

**Registration:** Save \$15 when you register for two weeks, save \$30 when you register for three weeks. Montshire members save \$25 to \$35 on summer camp registration fees.

What makes Montshire Summer Camp the best science and nature camp in the Upper Valley?

The highly trained staff, terrific programs, great facilities, and the low staff-to-camper ratio.

harvesting. Members \$75, non-members \$85.\*

### Landscape Design for the Natural Garden

Saturday, May 19, 11 a.m.–noon

Learn how beautiful gardens using native plants function as low maintenance, water conserving, and erosion controlling communities. This course is co-sponsored by NEWFS. NEWFS Course Code: HOR3995. Instructor: Liz Krieg, landscape designer and consultant. Members \$15, non-members \$18.\*

### Mountaintop Birding & Conservation

Wednesday, June 6, 7–8:30 p.m.

& Saturday, June 9, 6 a.m.–4 p.m.

This two-part course includes a Wednesday evening lecture, and a Saturday field trip to Mt. Mansfield with VCE researcher and director Chris Rimmer.

We'll study the "island" ecology of New England's boreal mountaintops and visit VCE's research site where ongoing research on the Bicknell Thrush takes place. Member \$130, non-members \$15.\*

### Forest Forensics: Reading the Forested Landscape

Saturday, August 25

9 a.m.–5 p.m.

Using evidence such as the shapes of trees, scars on their trunks, the pattern of decay in stumps and the construction of stone walls, it is possible to unravel complex stories etched into our forested landscape. This process of 'forest forensics,' is similar to interpreting a crime scene. Instructor: Tom Wessels, author of *Reading the Forested Landscape* and instructor at Antioch University New England. Members \$115, non-members \$125.\*

Please visit [www.montshire.org](http://www.montshire.org) for more information and to register online. \* Requires pre-registration

## A Sensory Journey into the Lives of Plants

*sLowlife Exhibition Opens  
September 15.*

Many of us think of and treat plants as inanimate objects. But a plant grows, reacts to changes in its environment, reproduces, responds to disease and injury, and undergoes a slow decline into old age and death—a saga that sounds hauntingly familiar. Contrary to our conscious perception, plants do move...be it ever so slowly.



*sLowlife*, a dynamic multimedia exhibition presents unusual and sometimes unnerving perspectives on how a plant reacts, both short- and long-term, to its inner and outer worlds.

Through vivid time-lapse photography and movies, *sLowlife* accelerates the time-scale of plants into our own frame of reference, speeding up their everyday lives to a pace that resonates with our own. Nationally known composer John Gibson (Indiana University) created the fascinating sounds accompanying *sLowlife*.

*sLowlife* is a collaborative project of the United States Botanic Garden (USBG), the Chicago Botanic Garden and Roger Hangarter, Indiana University. Additional support has been provided by the American Society of Plant Biologists, Indiana University and the National Science Foundation. *sLowlife* is based on an original concept by Hangarter and Dennis DeHart, State University of New York.



May 26-September 4

## Make Some Noise

*Sonic Sensation allows visitors to explore  
the science of sound and hearing.*

**E**xperience our sonic world and the sensation of being surrounded by everyday sounds in the Montshire's new traveling exhibition, *Sonic Sensation*, opening May 26.

Experiment with pitch, test your own hearing, make a movie soundtrack, and step into the ever-popular *Scream Chamber* to see how your decibels compare!

Sort high and low pitches by hitting colored bells, create sounds by conducting an *Invisible Orchestra*, and launch a billiard ball to show how sound hitting our eardrums sends signals to our brain.

In a lively, engaging manner, *Sonic Sensation* presents a fun and informative opportunity to explore sound in our environment. Learn about the anatomy and physics of how we hear; find out about decibels, amplitude, frequency, pitch, sound waves, and what you can do to protect your hearing.

Measure the frequency of sounds, match mystery sounds, and try to find hidden "animals" in kitchen cupboards by listening (no peeking!). Young visitors will want try out *Ear This!*, a fun family photo op where they can see how they look with the ears of an elephant, rabbit, bat and more.

Learn how you hear, and discover how well you can listen.

*Sonic Sensation* was developed by Sciencenter (Ithaca, New York), based on an exhibition originally designed by the Montshire.





# Calendar

## APRIL

- 5 Homeschool Series: *Astronomy*, series begins **C**
- 9 Books and Beyond **F**
- 12 Science on Tap: *Exploring the Influences of Teen Risk Behavior* **A**
- 14 Egg Drop Challenge **F**
- 16 Exploring Digital Photography, series begins **C**
- 17 Color Experiments **C**
- 19 Rockets **F**
- 25 Young Scientist Program, course begins **C**
- 25 Following Nature's Lead: *Integrated Landscaping* **A**

## MAY

- 2 Wildflowers of New England, series begins **A**
- 4 Montshire Benefit Auction, Fiddlehead Fling, 6 p.m. **A**
- 5 Ephemeral Zoo **F**
- 10 Coastal Birding and Migration, series begins **A**
- 12 Mountain Birdwatch Training **A**
- 13 Wild Edibles **A**
- 19 Landscape Design for the Natural Garden **A**
- 22 School Partnership Report to the Community **A**
- 25 Members-only exhibition opening: *Sonic Sensation* **F**
- 26 *Sonic Sensation* exhibition opens **F**
- 26 Insect Safari **C**

## JUNE

- 2 MCA Employee Appreciation Day **F**
- 6 Mountaintop Birding and Conservation, series begins **A**

## JULY

- 7 Super Science Day—*Up, Up, and Away!* **F**
- 21 Super Science Day—*Up Close and Personal* **F**

## AUGUST

- 4 Super Science Day—*Splash! Exploring Water* **F**
- 18 Super Science Day—*Microworlds: Investigations of the Very Small* **F**
- 25 Reading the Forested Landscape **A**

Always check [www.montshire.org](http://www.montshire.org) for the most up-to-date information, full program descriptions, and to register.



## MONTSHIRE MUSEUM

The Montshire Museum of Science features exhibits and programs on natural and physical sciences. The Montshire is an interpretive center for the Silvio O. Conte National Fish and Wildlife Refuge. The outdoor Science Park leads to a network of walking trails on our 110-acre property.

**Hours:** Open daily 10 a.m. to 5 p.m. Closed Thanksgiving, Christmas.

**Phone:** 802-649-2200

**Web:** [www.montshire.org](http://www.montshire.org)

### Admission fee

\$12 adults, \$10 children ages 2–17. Free for Museum members and children under the age of 2.

Non-Profit Org.  
U.S. Postage  
**PAID**  
Permit No. 170  
White River Jct., VT



Montshire Museum of Science  
One Montshire Road  
Norwich, Vermont 05055

## MONTSHIRE MUSEUM BOARD OF TRUSTEES

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## MONTSHIRE NEWS

The Montshire Museum of Science publishes *Montshire News* three times a year. Montshire members receive a free subscription.

**Executive Director** David Goudy

**Associate Director** Jennifer Rickards

**Editor** Beth Krusi

**Design** Wendy McMillan Design



First floor exhibit spaces and bathrooms are entirely wheelchair accessible. Second floor exhibit spaces can be reached by elevator. Several nature trails on the Quinn Nature Preserve are also wheelchair accessible.



2012  
*fiddlehead  
fling*

Benefit Auction

Montshire Museum of Science

Friday, May 4

6 p.m.

Register online at [montshire.org/auction](http://montshire.org/auction)