



Sustainability Quest for Elementary Students

Marsh-Billings-Rockefeller National Historical Park, Woodstock, Vermont

Super Quest 2021: Climate Connections



This Quest is one of 12 Quests featured in this year's Super Quest challenge to reflect on ways in which climate change is affecting the Upper Valley and how our communities are addressing these changes. **Sustainability Quest for Elementary Students** teaches you about what goes on just above the mansion area at Marsh-Billings-Rockefeller National Historical Park including tree Management, a solar kiln, gardens and more.

This year's **Climate Connections Super Quest** examines the ways climate change is affecting the Upper Valley—from plants, insects, and other animals moving here from the south due to warming temperatures; to more frequent and more powerful storms; to people moving here from other places experiencing even greater climate-induced changes. The Super Quest also looks at ways we're preventing or adapting to climate change, including flood control through land preservation; green energy technologies; and regenerative agricultural practices.

Physical Difficulty: Easy

Special Features: Historical, Natural (forest, field, gardens & tracker solar panel)

Walking Difficulty: Carriage roads & trails

Duration: 1:00

Bring: Binoculars, Field Guide

To get there: From Interstate 89, take Exit 1. Follow Route 4 West about 13 miles, through Quechee and Taftsville to Woodstock. Turn right onto Route 12 North and bear right after the iron bridge, continuing 1/4 mile. Park in the Billings Farm & Museum parking lot. Use the crosswalk at Route 12 to access the National Park.



Overview:

"What we have here is a very early experiment in sustainability. It was not just about the renewal of resources but the renewal of the human spirit." Rolf Diamant, Superintendent 1998-2011

As the only park in the National Park System focused on telling the story of conservation history, Marsh- Billings-Rockefeller National Historical Park is working hard to ensure that all aspects of its current operations are contributing to a healthier and more sustainable Park. The Sustainability Quest will lead you on a personal tour of the highlights of the Park’s sustainability program, starting at the Forest Center and heading out onto nearby trails. As you walk, rhyming clues will guide you across the landscape and toward a hidden treasure box. In the treasure box you will find a logbook to sign your name, where you are from, the date and record any thoughts you would like to share (and maybe even a sketch or a little poem!). You will also be able to collect an impression of the hand-carved rubber stamp when you complete the Quest.



Clues:

Moving, thinking and sharing clues will direct you around this Quest along with the map which can be found on the back page. The teaching clues will tell you facts about sustainability at the Marsh Billings Rockefeller National Historical Park.



Stop 1

Sit on the stone wall after crossing the crosswalk to rest
Can you come up with words that define the name of this Quest?

Thinking Pause

Here at the Park, we love the environment that much is clear
Away from fossil fuels is the direction we steer
Using renewable resources is the goal
On your way to the Forest Center you stroll.



Stop 2

The Park needed a place to host
Students and public alike who use the Park most
An innovative structure they did design
What is one source of renewable energy they had in mind?

Thinking Pause

Solar energy is one of them, the sun's radiation,
When captured produces electricity and heat in motion
Take time to read the information posted on the wall for you and me
You may learn about another source of renewable energy

Thinking Pause



Step 3

Firewood for the garn boiler is in sight
Stack upon stack of hardwood logs so tight
Measured as cords of wood, how wide, high and long is a cord?
First ask your peers.
Then find this answer posted on the wall very near.

(4 feet high, 4 feet wide and 8 feet long)



Step 4

Going up the Carriage Road enter the Woodshed with your friends
You will find pictures of the time when sustainability wasn't a trend
The foresters now decide which trees can be used for lumber or
firewood
Others are left for wildlife needs, such as shelter and food.

Exhibit exploration



Step 5

Up the Carriage Road to a trail on the left you will find
Take it and you will be fine.
20 steps, quietly stand, look up at the trees that do provide,
A renewable resource for the body, spirit and mind.

Trees have another very important use in our world
Sequestering carbon dioxide, CO₂, out of the air, you may have heard,
Is very important to keep our air clean and lower warming
In our atmosphere due to greenhouse gases accumulating.

Sharing Pause



Step 6

On you go to where a solar panel is king here.
Make your way there, how does it work? Share with your peers.

Sharing Pause

It is the cleanest & most abundant **renewable energy** source you see. **Solar** power is an electricity generator, and pollution-free. Solar panels work by allowing photons (particles of light) to knock electrons free, From atoms, generating a flow of electricity. Solar panels actually comprise many, smaller units - photovoltaic cells. Photovoltaic means they convert sunlight into electricity, isn't it swell?



Stop 7

Can you spy an historic pony shed, log seats for you to rest
It is now a studio for an artist in residence, the best
Can you guess two renewable resources used at this site
Pay attention, look all around, it is in sight.

(Solar panels using the sun, a wood stove using wood, and also a compostable toilet!)

Can you see yourself being an artist in residence some day?
What would you create with the theme of sustainability?

Sharing Pause



Stop 8

Make your way to the stack of lumber near.
Lumber is a renewable resource that the Park produces every year.
From the trees it is cut, sawn and planed for many uses here and there
Local craftsmen make tables, chairs, what would you make? Can you share?

Sharing Pause



Stop 9

Deep in the field, past the lumber, a small structure does stand.

A solar kiln harvesting energy from the sun is at hand.
The Vermont Youth Conservation Corps is a great response
To providing summer jobs for young people all across Vermont.
They built this solar kiln, we were told
Where solar panels power fans for humidity control.



Stop 10

Down the Carriage Road you now go,
To gardens where many flowers do grow.
Grown organically and with natural pest controls,
They bring beauty and solace to all our souls.

Pause here on a bench for reflection, drawing or writing.



Stop 11

You have arrived at the end of your Quest
The treasure box in this garden does nest.
Sign the log book with your name, date and reflection,
We trust you'll apply sustainability in your generation.

Written by staff at Marsh-Billings-Rockefeller NHP and Vital Communities 2020.

Please be a good steward of the land: leave it better than you found it and pack out any trash you find.



Valley Quest is a collection of 160+ treasure hunts that share and teach the natural gems and cultural heritage of the Upper Valley with children, families, adults, and visitors. It is a program of Vital Communities, a regional nonprofit working to engage citizens, organizations, and communities in creating solutions to our region's challenges. Learn more at vitalcommunities.org.

Have a suggestion, question, comment, or idea for us? We'd love to hear from you. Reach us at valleyquest@vitalcommunities.org or 802-291-9100.