



American Masters “John Muir in the New World”
Educator Activity Guide

Monday, April 18th at 9 p.m. ET (check local listings)



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“As long as I live, I'll hear waterfalls and birds and winds sing. I'll interpret the rocks, learn the language of flood, storm, and the avalanche. I'll acquaint myself with the glaciers and wild gardens, and get as near the heart of the world as I can.” – Journal, undated fragment, c. 1871 in *Son of the Wilderness*, edited by Linnie Marsh Wolfe, 1945

WELCOME

Imagine John Muir stepping into your classroom today. No doubt he'd make an inspired teacher, passionately conveying his curiosity and insights about the natural world. But he'd probably drive school administrators crazy, too. Leaping across glacial crevasses, clambering into high trees during windstorms... his was a zeal that could hardly be replicated in conventional educational settings!

Still, it's amazing to read the words of John Muir and see how relevant they remain for those of us working to connect young people to nature today. He didn't just appreciate the workings of nature. He also believed people need to spend time in nature for their own health and happiness. In this guide, we've collected a variety of quotes from John Muir's writing and proposed related activities that you can try with students of all ages. Who better to launch you and your group into new adventures and discoveries in the great outdoors?!

TAKING THE FIRST STEP

We know getting outside with students can be daunting. You worry about safety and control. But we also know that teacher after teacher has come away from these outdoor excursions in awe of what their students have accomplished. Sometimes it's the most disruptive student who becomes the natural leader outdoors. Sometimes being outdoors is the one time students drop their mobile devices and start to engage with each other and the world in a deeper way. It won't happen all at once and it won't be perfect. But we encourage you to take a cue from John Muir himself and walk boldly outdoors. We're confident it's a journey you won't regret.

**American Masters “John Muir in the New World” will premiere nationally
Monday, April 18th at 9pm ET on PBS. (Check local listings.)**

Join the Natural Teachers Network! All it takes is a commitment to spending time outdoors with your students for their health, well-being, and learning. Visit <http://www.childrenandnature.org/movement/naturalteachers/> to take the natural teacher's pledge and find resources to enhance your outdoor teaching.



ACTIVITIES

NATURE AND ME

“There is a love of wild nature in everybody....” –
The Wilderness World of John Muir, edited by Edwin Way
Teale, 1954



Invite your students to share their responses to the American Masters film “John Muir in the New World.” Then write the above quote where all the students can see it. What do they think? Do they agree or disagree that there’s a love of wild nature in everybody?

Have everyone write a page or two describing their relationship with nature. Better yet, find or make nature journals and use this as the opening entry. Do your students spend time outdoors? Did they ever? What are their favorite memories of time in nature? What are their favorite places to go? What, if anything, keeps them from spending more time outdoors now? (Consider social, cultural, and physical barriers.)

Try to make time outdoors a regular part of your classroom routine—either daily time in the schoolyard or weekly excursions to nearby natural areas. Encourage the students to spend some time sitting alone and in silence on your outings. Then have them record their observations and reflections. When your unit or year is over, return to the quote. Have their feelings changed at all?

ROCK STARS

"....all the rocks seemed talkative, and more telling and lovable than ever. They are dear friends, and seemed to have warm blood gushing through their granite flesh; and I love them with a love intensified by long and close companionship." – *Steep Trails*, 1918

John Muir knew rocks. Many of his insights about glaciers and other geologic phenomena are still upheld by today’s scientific community. So it’s quite remarkable that he spoke about rocks not with scientific detachment but with genuine tenderness! Following his example, introduce your students to local rocks with a respect for the many ways that scientific curiosity unfolds. With very young students, go outside and have everyone collect a “pet rock.” They can name it, make it a house, and keep it on their desks. Elementary students can go outside and collect an assortment of rocks for a classroom display. Arrange them by color, type, or location. Try to identify them with field guides. Consider visiting a nearby river or stream where you can collect small rocks and also observe the relationship between boulders and water flow. Or look at city buildings to see the different kinds of rocks used in their construction. With advanced students, make a map of geologic formations in your community. What forces created nearby mountains or mesas? Is that egg-shaped hill a drumlin left by a passing glacier? You might want to arrange a field trip with a local geologist and tour the area for insights into its geologic history. How has geology influenced patterns of human settlement and land use?



TREE AMIGOS

“I never saw a discontented tree. They grip the ground as though they liked it, and though fast rooted they travel about as far as we do. They go wandering forth in all directions with every wind, going and coming like ourselves, traveling with us around the sun two million miles a day, and through space heaven knows how fast and far!”

– *John of the Mountains*, edited by Linnie Marsh Wolfe, 1938

Read the Muir quote out loud to your students. What sorts of comparisons does he make between people and trees? (*We all “come and go” with the wind, are travelers on the spinning world, and so on.*) In what other ways does he personify trees? (*He says they’re not “discontented” and that they “grip” the ground “as though they liked it.”*) Even if you didn’t know a thing about John Muir, what would you take away about him from this quote? (*He has a sensitive kinship with the natural world.*)



Now go outside with your students. Have each one choose a different favorite tree and get to know it. Look at its branches, twigs, leaves or needles, and seeds. Feel its bark or make a bark rubbing. Measure its width in inches or kid-hugs. Use estimates or triangulation to determine its height. Draw a sketch of the tree and record its movements. Note any wildlife that uses the tree. Try to revisit these trees a few times. Does their tree seem discontented or happy?!

SMALL WONDERS

“The universe would be incomplete without man; but it would also be incomplete without the smallest transmicroscopic creature that dwells beyond our conceitful eyes and knowledge.” – *A Thousand-Mile Walk to the Gulf*, 1916

Read the quote to your students. What does Muir mean by “conceitful eyes?” Do humans forget the importance of insects, fungi, and other small organisms? Explain that for this project, you’ll be giving more attention to these minute movers and shakers.

Start by giving everyone tips about where to look for insects and other small organisms outdoors: e.g. on trees and shrubs, on leaves, inside flowers, under logs, in the soil, and so on. Or use stakes and string or hula hoops to create small transects to inspect for insect life in different terrain. Remind students that these creatures should be treated with respect. Instead of collecting them, you’ll just be observing them, sketching them, and noting their location. Have children use magnifying glasses or binoculars if you have them. Encourage them to jot details (actual or estimated length, color, and so on) around their sketches. Afterward, you can use field guides to identify what you found. Depending on the age of your students, they can now do some individual or group research to find out what role some of these organisms play in the environment. Share your findings. Were they surprised about the importance of these little creatures? Would the universe “be incomplete” without them?



THE REAL WORLD WIDE WEB

“When we try to pick out anything by itself, we find it hitched to everything else in the Universe.” —
My First Summer in the Sierra, 1911



John Muir’s quote is a perfect starting point for an activity on ecosystems. Write the quote where all the students can see it. Can anyone give examples of what Muir is talking about?

Take your students outside. For younger students, have everyone pick a different object from nature that they see or know resides here (e.g. tree, crow, worm, grass, soil, puddle, person, squirrel, acorn, flower, bee), and have them write the name of their object on an index card. Or hand out cards with the objects written or drawn on them. Have the students tape the cards to their chest. Give the group a little time to observe their objects. Now choose one of your students to come to the front of the group. Can anyone think of a way their object is “hitched” to this one? That person can come to the front of the group and hold the first person’s arm. Invite every other student, in turn, to come forward when they see someplace where they could be hitched. Build a chain with the whole class. Afterward, talk about these connections. Do they know the names of some of the relationships they’ve represented (predators and prey, pollinators, microhabitats, decomposers, parasites and hosts, and larger food and nutrient webs)?

More advanced students can also pick an object to observe. But use this exercise as a chance for them to draw upon their existing ecosystem knowledge to discuss their object’s role. Or have them conduct an independent observation and research project to define the many ways their object is hitched to others in your local system.



OH, BEAUTIFUL

“All the wild world is beautiful, and it matters but little where we go, to the highlands or lowlands, woods or plains, on the sea or land or down among the crystals of waves or high in a balloon in the sky...” — Unpublished journal entry dated June 1890, in *John of the Mountains*, edited by Linnie Marsh Wolfe, 1938

Ask your students what they think of John Muir’s quote. Is all the wild world beautiful to them? What are the most beautiful natural places in your area? Have your students head outside to document the beauty they find around them. They can do field sketching with pencils or charcoal. They can try plein air painting. They can use cameras, cell phones, or video cameras to capture photographs or moving images of these places. When they’ve finished, have them create an accompanying “wall text” with the name of their work, the artist’s name, the location, and a brief accompanying text (focused on the place, the process, their vision, and so on). Then arrange to present these student works and viewpoints together in a group art show at your school, library, or other community center. You might even want to make a map pinpointing where each of these wild beautiful places can be found.



Additional Resources

Read a comprehensive collection of John Muir's writing, interspersed with fascinating biographical material in *The Wilderness World of John Muir*, edited by Edwin Way Teale, a great naturalist writer himself (Mariner Books, 2001).

You can also find a collection of John Muir's writing online at http://www.sierraclub.org/john_muir_exhibit/writings/default.aspx.



Do you want to share ideas and questions about getting outdoors with your students? Join a community of like-minded educators in the Natural Teachers Network on C&NN's social networking site, C&NN Connect: <http://childrenandnature.ning.com/group/naturalteachers>.

Find the latest programs and research on the children and nature connection by visiting the Children and Nature Network at www.childrenandnature.org.

Are you interested in linking nature lessons to literature? Find an extensive list of recommended titles for toddlers through teens, as well as accompanying activities, at <http://www.childrenandnature.org/naturestory/>.





The Children and Nature Network is honored to help celebrate the life, accomplishments, and legacy of John Muir. We respect a range of values and beliefs about the natural world, including but not limited to those of John Muir as presented in this film. We encourage everyone who participates in the movement to connect people to the natural world to exercise appropriate caution and responsibility when engaging in any nature-based outdoor activities.

Program Sponsors



American Masters “John Muir in the New World” is made possible by the support of the National Endowment for the Humanities. Additional funding provided by Floyd and Delores Jones Foundation, The Russell Family Foundation, RSF Global Community Fund-Roger Jordan Fund, Italo Bredo, Wisconsin Humanities Council, Craig McKibben & Sarah Merner, Walter Henry Freygang Foundation, Billings and John E. Cay III. Funding for American Masters provided by The National Endowment for the Arts, Corporation for Public Broadcasting, Rosalind P. Walter, The Blanche & Irving Laurie Foundation, Rolf and Elizabeth Rosenthal, Cheryl and Philip Milstein Family, Jack Rudin, The Andre and Elizabeth Kertesz Foundation, Michael & Helen Shaffer and PBS.



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The mission of the Children & Nature Network (C&NN) is to build a worldwide movement to reconnect children and nature—for their health and well-being and the health of the Earth itself. C&NN builds awareness, provides access to state-of-the art resources, supports the grassroots with tools and strategies, develops publications and educational materials, synthesizes the best available research, and encourages collaboration to heal the broken bond between children and nature. C&NN is a 501c3 non-profit organization.



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