## EARTH TALK Questions & Answers About Our Environment

<u>Dear EarthTalk</u>: My kids just want to play videos games and watch TV all day. Do you have any tips for getting them outside to appreciate nature more?

- Sue Levinson, Bowie, MD

Getting kids away from computer and TV screens and outside into the fresh air is an increasing challenge for parents everywhere.

Researchers have found that U.S. children today spend about half as much time outdoors as their counterparts did 20 years ago.

The Kaiser Family Foundation reports that kids aged eight to 18 spend on average more than seven and a half hours a day—or some 53+ hours per week—engaging with so-called entertainment media.

Meanwhile, the Children & Nature Network (C&NN), a non-profit founded by writers and educators concerned about "nature deficit disorder," finds that, in a typical week, only six percent of American kids aged nine to 13 play outside on their own.

According to Richard Louv, a founding board member of C&NN and author of the book, *Last Child in the Woods*, kids who stay inside too much can suffer from "nature deficit disorder," which can contribute to a range of behavioral problems including attention disorders, depression and declining creativity as well as physical problems like obesity.

Louv blames parental paranoia about potential dangers lurking outdoors and restricted access to natural areas—combined with the lure of video games, websites and TV.

Of course, one of the keys to getting kids to appreciate nature is for parents to lead by example by getting off the couch and into the outdoors themselves. Since kids love being with their parents, why not take the fun outside?

For those kids who need a little extra prodding beyond following a parent's good example, the National Wildlife Federation (NWF), a leading national non-profit dedicated to preserving and appreciating wildlife, offers lots of suggestions and other resources through its Be Out There campaign.

One tip is to pack an "explorer's kit"—complete with a magnifying glass, binoculars, containers for collecting, field guides, a notebook, bug repellent and bandages—into a backpack and leave it by the door to facilitate spontaneous outdoor adventures.

Another idea is to set aside one hour each day as "green hour," during which kids go outside exploring, discovering and learning about the natural world.

NWF's online Activity Finder helps parents discover fun outdoor activities segmented by age. Examples include going on a Conifer Quest and making a board displaying the different types of evergreen trees in the neighborhood, turning an old soda bottle into a terrarium and building a wildlife brush shelter.

Another great source of inspiration is Children and Nature Network which, during the month of April, is encouraging people of all ages to spend more time outdoors at various family-friendly events as part of its nationwide Let's Get Outside initiative.

Visitors to the C&NN website can scroll through dozens of events within driving distance of most Americans—and anyone can register an appropriate event there as well.

Researchers have found that children who play outside more are in better shape, more creative, less aggressive and show better concentration than their couch potato counterparts—and that the most direct route to environmental awareness for adults is participating in wild nature activities as kids. So do yourself and your kid(s) a favor, and take a hike!



Researchers have found that children who play outside more are in better shape, more creative, less aggressive and show better concentration than their couch potato counterparts. (*Photo courtesy of iStockPhoto*)

CONTACTS: Richard Louv, www.richardlouv.com;\_NWF Be Out There, www.nwf.org/Be-Out-There.aspx; C&NN, www.childrennature.org.

<u>Dear EarthTalk</u>: I'm getting my roof redone and have heard about solar shingles. Are they available—and are they practical for the Northeast?

– John Denson, Glastonbury, CT

Solar shingles are photovoltaic cells designed to look like and integrate with conventional asphalt roof shingles.

First commercially available in 2005, solar shingles were much more costly than traditional "bolt-on" photovoltaic panels, and thus were used mainly by those wanting to go solar but maintain a traditional roofline.

But more recently solar shingles have become price-competitive with bolton panels, and are getting much more popular accordingly.

Eco-conscious home and building owners might find solar shingles especially attractive when they are re-shingling anyway since the solar shingles also double as functional, protective and weatherproof roof shingles in their own right.

The biggest name in solar shingles is Dow's Powerhouse line, which uses cutting edge Copper Indium Gallium Selenide solar cells (aka "thin-film" solar) to turn sunlight into electricity via a supplied inverter box.

The Powerhouse shingles generate 12 watts per square foot and are "gridtied," meaning they're designed for structures already connected to the power grid and can send excess power back to the grid.

They are wireless, snap together and can be installed by regular roofing contractors just like (or alongside) conventional asphalt shingles (an electrician needs to set up the inverter box).

Dow reports that a typical residential cluster of 350 solar shingles on a roof could slash one's household electric bill by 40-60 percent.

Such an installation can cost a homeowner over \$20,000, but federal, state and local incentives can bring the cost to half that in some areas.

Powerhouse shingles are currently available (from Dow-authorized contractors) in California, Colorado, Connecticut, Louisiana, Maryland, Massachusetts, Michigan, New York, North Carolina, Texas and Washington, D.C.

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