

A leader's guide to the new Sustainability merit badge

By Mark Ray

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JUST AFTER JON HARMON

GRADUATED from high school, the Eagle Scout from Portola Valley, CA, started acting a little strange around the house. "He was chasing us around turning the water off when we were washing our hands. He would turn off the computers at night," says his father, Scott, also an Eagle Scout. "I was getting a little frustrated."

That frustration led to several conversations, which led the elder Harmon to think about what it means to live sustainably. It also prompted him to propose a merit badge in sustainability. "I realized that ... [other Scouting families] could learn about how important it is to live sustainably, too."

Five years later, the *Sustainability* merit badge debuted at that summer's national jamboree and joined the list of Eagle-required merit badges as an alternative to *Environmental Science*.

The new badge begins and ends with a family meeting in which family members discuss what they can do to live more sustainably. In between, the Scout undertakes projects, often alongside his family, to understand the big picture regarding topics such as water, food, energy, and transportation, as well as waste reduction, species decline, world population, and climate change.

To learn more about the badge, we talked with four Scouters who served on the *Sustainability* Merit Badge Task Force: Scott Berger of Scotch Plains, NJ, chairman of the Sustainability Leadership Team overseeing the merit badge's development and chairman of the Merit Badge Maintenance Task Force; Scott Harmon of Portola Valley, chairman of the content team; Steve Bowen of El Centro, CA, a member of the National Advancement Committee; and David Disney of Kansas City, Mo., a member of the National Executive Board.

What is sustainability in the simplest terms? "Sustainability is more of a new way of thinking as opposed to the science in the *Environmental Science* merit badge," Berger says. "The idea is not just to conserve but to truly be stewards of our environment, our energy sources, and more—to think in terms not just of having enough for our lifetime but enough for future generations."

Those challenges can seem overwhelming. Is that why the requirements focus so much on Scout-size projects? "It's a hard concept for a Scout to feel that he himself, as a single person, can have an impact on the world, but he certainly can have an impact within his own family," Berger says. "We're hoping to bring [sustainability] down to a level where a Scout can feel he can make a difference, where his actions matter."

How does the new badge compare with Environmental Science? "Environmental Science is more about studying the scientific end, whereas Sustainability is trying to teach a way to think—to live more responsibly and sustainably," Berger says. "It's a state of mind as opposed to the science." Drawing similarities between the two is kind of like comparing macroeconomics vs. microeconomics, Harmon says. "Sustainability is macro, looking outward at the whole global problem. Environmental Science is micro, looking at the science and chemistry of what's going on."

Should interested Scouts pursue both badges, counting the second as an elective for Eagle? "I would encourage them to earn both," Berger says. Bowen agrees, pointing out that earning Environmental Science

could be good preparation for Sustainability. “You’ve got to understand the environment a bit before you can start figuring out how we can do a better job,” he says.

Can a Scout earn this badge if he lives in an urban area? Yes, says Berger. “There are a lot of things we’ve done to make this badge viable for any Scout, regardless of where he’s living,” he says. “Sustainability is certainly not just for suburban Scouts; it’s for everybody.”

Who can counsel this badge? Bowen suggests science teachers as potential counselors, although he points out that the badge is about more than just science. “Trees are very important to it, but so is not filling up our landfills,” he says.

Disney suggests seeking out people who are doing the sorts of projects the badge requires. “Who’s helping with glass recycling? Who’s helping with the community garden? Who’s helping with other things and might have a passion for a component of this? They would be ideal counselors,” he says.

Another source would be people who have responsibility for sustainability efforts at work. “Most companies have an energy team, or a green team, or an efficiency team,” Harmon says. “There’s a huge grassroots movement going on—in big companies in particular—that was not there five years ago.”

Of course, all merit badge counselors must register with the BSA and be approved by the council advancement committee before beginning work.

What impact could this badge have beyond the Scouts who earn it and their families? “I would hope that our awareness of our footprint on this earth will be recognized at an earlier age and will start the conversation about how we protect the earth,” Disney says. “Many young people are concerned about that and don’t know how to approach it. This gives them a path.”

Harmon adds, “We really want to empower the Scouting movement to make a difference, to make a visible difference in the world outside Scouting.”

Sustainability merit badge requirements released

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Ready ... set ... go green!

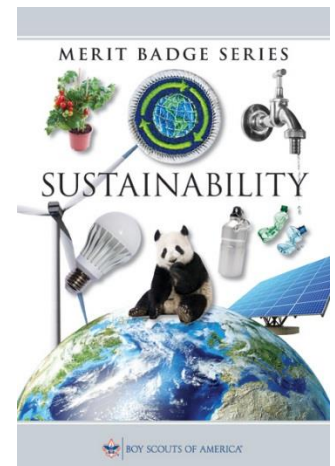
The long-awaited requirements for the Boy Scouts of America’s **Sustainability merit badge** have been released.

The badge joins the Eagle-required list as an option to Environmental Science merit badge. Scouts must earn either Sustainability **or** Environmental Science on their journey to Eagle.

Scouts may begin working on Sustainability MB once pamphlets arrive in Scout Shops and at scoutstuff.org in early August, but you can get a first look at the requirements below. Or [click here \(PDF\)](#) for a downloadable flier you can share with your Scouts.

Sustainability MB requirements

1. Before starting work on any other requirements for this merit badge, write in your own words the meaning of sustainability. Explain how you think conservation and stewardship of our natural resources relate to sustainability. Have a family meeting, and ask family members to write down what they think sustainability means. Be sure to take notes. You will need this information again for requirement 5.
2. Do the following:
Water. Do A AND either B OR C.
A. Develop and implement a plan that attempts to reduce your family’s water usage. Examine your family’s water bills reflecting usage for three months (past or current). As a family, choose three ways to help reduce consumption.



Implement those ideas for one month. Share what you learn with your counselor, and tell how your plan affected your family's water usage.

B. Using a diagram you have created, explain to your counselor how your household gets its clean water from a natural source and what happens with the water after you use it. Include water that goes down the kitchen, bathroom, and laundry drains, and any runoff from watering the yard or washing the car. Tell two ways to preserve your family's access to clean water in the future.

C. Discuss with your counselor two areas in the world that have been affected by drought over the last three years. For each area, identify a water conservation practice (successful or unsuccessful) that has been used. Tell whether the practice was effective and why. Discuss what water conservation practice you would have tried and why.

Food. Do A AND either B OR C.

A. Develop and implement a plan that attempts to reduce your household food waste. Establish a baseline and then track and record your results for two weeks. Report your results to your family and counselor.

B. Discuss with your counselor the ways individuals, families, and communities can create their own food sources (potted plants, family garden, rooftop garden, neighborhood or community garden). Tell how this plan might contribute to a more sustainable way of life if practiced globally.

C. Discuss with your counselor factors that limit the availability of food and food production in different regions of the world. Tell three ways these factors influence the sustainability of worldwide food supplies.

Community. Do A AND either B OR C.

A. Draw a rough sketch depicting how you would design a sustainable community. Share your sketch with your counselor, and explain how the housing, work locations, shops, schools, and transportation systems affect energy, pollution, natural resources, and the economy of the community.

B. With your parent's permission and your counselor's approval, interview a local architect, engineer, contractor, or building materials supplier. Find out the factors that are considered when using sustainable materials in renovating or building a home. Share what you learn with your counselor.

C. Review a current housing needs assessment for your town, city, county, or state. Discuss with your counselor how birth and death rates affect sufficient housing, and how a lack of housing—or too much housing—can influence the sustainability of a local or global area.

Energy. Do A AND either B OR C.

A. Learn about the sustainability of different energy sources, including fossil fuels, solar, wind, nuclear, hydropower, and geothermal. Find out how the production and consumption of each of these energy sources affects the environment and what the term "carbon footprint" means. Discuss what you learn with your counselor, and explain how you think your family can reduce its carbon footprint.

B. Develop and implement a plan that attempts to reduce consumption for one of your family's household utilities. Examine your family's bills for that utility reflecting usage for three months (past or current). As a family, choose three ways to help reduce consumption and be a better steward of this resource. Implement those ideas for one month. Share what you learn with your counselor, and tell how your plan affected your family's usage.

C. Evaluate your family's fuel and transportation usage. Review your family's transportation-related bills (gasoline, diesel, electric, public transportation, etc.) reflecting usage for three months (past or current). As a family, choose three ways to help reduce consumption and be a better steward of this resource. Implement those ideas for one month. Share what you learn with your counselor, and tell how your plan affected your family's transportation habits.

Stuff. Do A AND either B OR C.

A. Keep a log of the "stuff" your family purchases (excluding food items) for two weeks. In your log, categorize each purchase as an essential need (such as soap) or a desirable want (such as a DVD). Share what you learn with your counselor.

B. Plan a project that involves the participation of your family to identify the "stuff" your family no longer needs. Complete your project by donating, repurposing, or recycling these items.

C. Discuss with your counselor how having too much "stuff" affects you, your family, and your community. Include the following: the financial impact, time spent, maintenance, health, storage, and waste. Include in your discussion the practices that can be used to avoid accumulating too much "stuff."

3. Do the following:

Explain to your counselor how the planetary life-support systems (soil, climate, freshwater, atmospheric, nutrient, oceanic, ecosystems, and species) support life on Earth and interact with one another.

Tell how the harvesting or production of raw materials (by extraction or recycling), along with distribution of the resulting products, consumption, and disposal/repurposing, influences current and future sustainability thinking and planning.

4. Explore TWO of the following categories.

Have a discussion with your family about the two you select. In your discussion, include your observations, and best and worst practices. Share what you learn with your counselor.

- **Plastic waste.** Discuss the impact plastic waste has on the environment (land, water, air). Learn about the number system for plastic recyclables, and determine which plastics are more commonly recycled. Find out what the trash vortex is and how it was formed.
- **Electronic waste.** Choose three electronic devices in your household. Find out the average lifespan of each, what happens to these devices once they pass their useful life, and whether they can be recycled in whole or part. Discuss the impact of electronic waste on the environment.
- **Food waste.** Learn about the value of composting and how to start a compost pile. Start a compost pile appropriate for your living situation. Tell what can be done with the compost when it is ready for use.
- **Species decline.** Explain the term species (plant or animal) decline. Discuss the human activities that contribute to species decline, what can be done to help reverse the decline, and its impact on a sustainable environment.
- **World population.** Learn how the world's population affects the sustainability of Earth. Discuss three human activities that may contribute to putting Earth at risk, now and in the future.
- **Climate change.** Find a world map that shows the pattern of temperature change for a period of at least 100 years. Share this map with your counselor, and discuss three factors that scientists believe affect the global weather and temperature.

5. Do the following:

After completing requirements 1 through 4, have a family meeting. Discuss what your family has learned about what it means to be a sustainable citizen. Talk about the behavioral changes and life choices your family can make to live more sustainably. Share what you learn with your counselor.

Discuss with your counselor how living by the Scout Oath and Scout Law in your daily life helps promote sustainability and good stewardship.

6. Learn about career opportunities in the sustainability field. Pick one and find out the education, training, and experience required. Discuss what you have learned with your counselor and explain why this career might interest you.

Updated, July 16, 2013 with clarification about water bill:

Absent of a monthly water bill or statement, a Scout could arrive at his best guess or estimate on the amount of water usage in his home to satisfy the requirement. For example, if a meter is attached to the well, the Scout could estimate his family's daily water usage by tracking gallons used per day.

Also, the Internet is a great source for finding information on conducting a household water audit. By searching Google, one might discover the state of Maryland, for example, offers a way to accurately estimate water use without a meter by measuring water flow from each fixture in the home. Other states' websites offer water audit spreadsheets, charts, or checklists to help individuals evaluate water use.

Updated, Aug. 22, 2013: Leaders, check out *Scouting* magazine's latest Merit Badge Clinic focusing on the Sustainability merit badge. In this column, writer Mark Ray speaks to the four members of the Sustainability Merit Badge Task Force, all of whom share insights into why Sustainability merit badge was created and how to help Scouts earn the new badge.