



What Can We Do in Our Homes and Schools to Care for the Environment?

As Christians, we believe God created the Earth and has entrusted us to care for it. What are some practical things we can do at home and school to care for the Earth's environment? Before you step out in action, pray individually and with your family and students about what God desires your family and class to do in caring for His creation. Consider the path God impresses you to take. Perhaps He will lead you to start with simple steps. But first, teach your children and students to love God's great outdoors.

Get Involved With Nature

The more time we spend outdoors in God's creation, the more likely we are to treasure and value nature and feel compelled to care for it. We must teach children to love what God has created and to care for the environment. One simple way is to take them on nature hikes where they can observe animals and plants. Obtain books they can use to identify birds, plants, trees, and animals and their tracks. A fun activity while on a hike is to make plaster casts of animal footprints you find.¹

Another fun activity: Raising a caterpillar to a butterfly or

moth. You can find monarch caterpillars on milkweed plants; search under the leaves for a green caterpillar with black-and-white stripes. They eat milkweed leaves, so you will need to supply fresh leaves as the caterpillar eats them (other types of caterpillars prefer different plants).² Watching the caterpillar grow, the chrysalis form, and the butterfly emerge is awe-inspiring and can bind our hearts to the Creator and His work.

Another enjoyable learning activity is to catch a tadpole or polliwog from the edge of a pond. Before taking your students to the pond, obtain a little net and jar with a lid, in which to store a few tadpoles. They will need clean, dechlorinated water and food (frozen lettuce or spinach works well) and may take many weeks to metamorphose into a frog. If it is a native species, you can release the frog back into the same pond; otherwise you need to care for the frogs in your home or classroom.³

You can also help your students to learn more about creation by providing them with books or magazines on nature topics. Every family and school should consider subscribing to magazines that contain well-written articles on environmental issues. Increased knowledge and awareness can lead to

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a greater desire to care for the environment.

When you take your students on field trips to state or provincial parks, pay the entry fee, and enter your name and those of your students in the log of visitors. If you use a nature trail with a registry, be sure to record your hike. The more use these parks and trails receive, the more likely that they will continue receiving funding. Your class could plan to stay overnight in the park campground. The visitor or interpretive center usually contains much information, including the schedule for special programs and hikes, where your students can learn more about many natural things, including the sky at night, animals in ponds or streams, the types of plants and birds living nearby, and ways to help the flora and fauna continue to thrive. While at the park, you might also learn how your students can volunteer for organized data-collection efforts, such as counting birds or plants for scientific surveys. Some parks have specialists who will present full lectures (often with animals or plants) in school classrooms.

Recycle, Reuse, and Reduce

Our environment is God's gift to us. We live in it, we use it, and we enjoy it. It is also our responsibility to care for it. What are some practical things we can do to achieve this objective? An easy way to start is by keeping in mind the three R's of environmentalism: *recycle*, *reuse*, and *reduce*.

Is there a recycling program in your neighborhood or city? Some items that are commonly recycled are glass, paper, cardboard, metal cans, and plastics. Some companies offer money for used aluminum. It is easier and less expensive to recycle aluminum than to mine and process it.

Many cities have a public location where citizens can deposit recyclable items for free. Decide where you will temporarily collect items for recycling.

Some cities also have curbside pickup of certain recyclables. Check the phone book or the Internet for local recycling companies. Many recyclers don't require you to sort the items; glass,

paper, cardboard, and metal containers can be mixed together. If your town does not have curbside pickup, make arrangements with someone who owns a truck or station wagon to deliver the recyclables to the recycling station on a regular schedule.

Consider reusing items and reducing your household/school waste. One easy item to reuse or reduce is grocery bags. Use reusable cloth bags when shopping, and avoid plastic bags.

If you do get new grocery bags, reuse them at home and school. Instead of buying plastic bags for your wastepaper baskets, reuse grocery bags. Other ways to reuse and reduce garbage: Cut old clothes into rags for cleaning, or donate used clothing and household items to a thrift shop so others can reuse them.

Two examples of Websites that assist communities in reducing the amount of waste going to landfills and in reusing items are the Freecycle Network and Craigslist. The Freecycle Network⁴ is active in more than 85 countries; it is an e-mail list where you can list household items that you want to give away. Craigslist⁵ is also active internationally and has a free section for advertising used items. Many things that your family and school don't need anymore may be just right for someone else.

Provide Financial Support/Volunteer

Encourage your students to raise or donate money to environment-friendly organizations, or have them volunteer some time to help advance their work. There are both international and local organizations that your family or class may wish to support. Students can pick up trash along local roads and streams, and in parks, and write letters advocating for clean water and air.

Try Composting

A system of complete and natural processing, composting combines recycling and reducing the amount of waste going into landfills. Most people throw compostable materials in the garbage, not realizing that they can be transformed into composted humus, a soil conditioner and fertilizer for the garden,





yard, or potted plants. Your family or school can purchase a composting container, or create a homemade composting bin by forming chicken wire into a bottomless cylinder. Press the wire into the earth. Put a few sticks on the bottom to ensure that the compost gets adequate air circulation, then add layers of “green” items, like cut grass or cafeteria waste (e.g., food scraps, fruit and vegetable peels and food leftovers, excluding meat), alternating with thin layers of “brown” things—dead leaves, crumpled or shredded paper, or waste litter from vegetarian pets like gerbils or guinea pigs.

Add a little water to the compost heap, but don’t let it get too wet. Cover the bin so it won’t get soaked with rain. Soon the mixture will decay. You can’t make a mistake composting because it will happen no matter what you do, whether it is hot or cold, or you add an uneven mixture of “green” and “brown.” Depending on the outdoor temperature (in hotter climates, it works faster), it will take months to a year to completely re-process; when it is done, the compost is basically topsoil, smells of earth, and is a great medium in which to grow plants.

Foul odors may emanate from the compost if it has inadequate oxygen or there is too much “green” and too little “brown” material. If it starts to smell, mix it to inject more air, and add additional “brown” material.⁶

An alternative to a compost bin is using worms to process food scraps.⁷ Brandling worms (*Eisenia fetida*, also known as tiger worms) will live in a plastic bucket or vermicomposting bin and eat their weight in excess food every day or so. They break down the food, recycling it into rich compost that can be used for organic gardening or fertilizer for indoor plants.⁸

Buy Local

By choosing to buy food locally grown, you and your school support the local economy and reduce the amount of gasoline or diesel fuel necessary to transport food long distances. The price may reflect lower transportation costs. Also, fresh produce often tastes better and contains more vitamins since it is more likely to have been picked when it was ripe. Your local market may indicate which produce was grown locally. There may be a farmers’ market or food co-op nearby that you can patronize, or even arrange for a farmers’ market on school grounds one afternoon each week.

Be a Vegetarian

Choosing to eat a diet that includes less or no meat and to consume more plant-based foods will mean less pollution from animal feed lots (urine, manure, antibiotics, and other waste materials from factory farms can seep into rivers and ground water). In addition, if fewer animals are raised for slaughter, the amount of grain that goes into animal feed can be reduced and made available for people instead. This would also save water: For example: “Approximately 2,500 gallons of water,⁹ and 10 to 16



Top: Food scraps and green items ready for composting.

Middle: Rainwater can be captured to irrigate gardens and even for household use if properly treated.

Bottom: International Rescue and Relief students from Union College (Lincoln, Nebraska) built the Tasba Raya Adventist Mission Station in Nicaragua, where rainwater collected from the roof and gutters is stored in a large holding tank. A 55-gallon barrel uses a bio-sand water filter system to produce safe drinking water. The station has a separate filtering system for water that is piped to the kitchen. Overflow from the holding tank goes to an underground cistern for use during the dry season.



pounds of grain¹⁰ are required to produce one pound of beef.⁹ Clearly, it is much more economical for people to eat grain and plant-based foods than to eat meat. Adequate protein is easy to obtain from a plant-based diet. For example, all essential amino acids are ingested in sufficient amounts when a person eats a mixture of rice and beans, or corn and beans. Also, choosing to eat a plant-based diet reduces the demand for meat, and hence less slaughter and potentially, less cruelty to animals.¹¹

Harvest Rainwater

Consider capturing rainwater in a barrel or cistern for use when water is scarce.¹² You can use it for irrigation (lawns and gardens) or even to bathe. If captured water is used for drinking, it should be properly filtered, boiled, or treated. Even where drinking water is clean and readily available, it makes environmental sense to capture rainwater and use it for lawns and gardens, instead of using tap water.¹³

Unless you live where it rains often and the earth around you is saturated with water, you might want to catch some of the rainfall and store it on your land rather than allowing it to run off, carrying topsoil with it. Such water can be used to make rain gardens,¹⁴ which allow the water to soak into the ground, after which you can fill the area with perennial flowers and native vegetation, or a butterfly garden.¹⁵

Use Wind and Solar Power

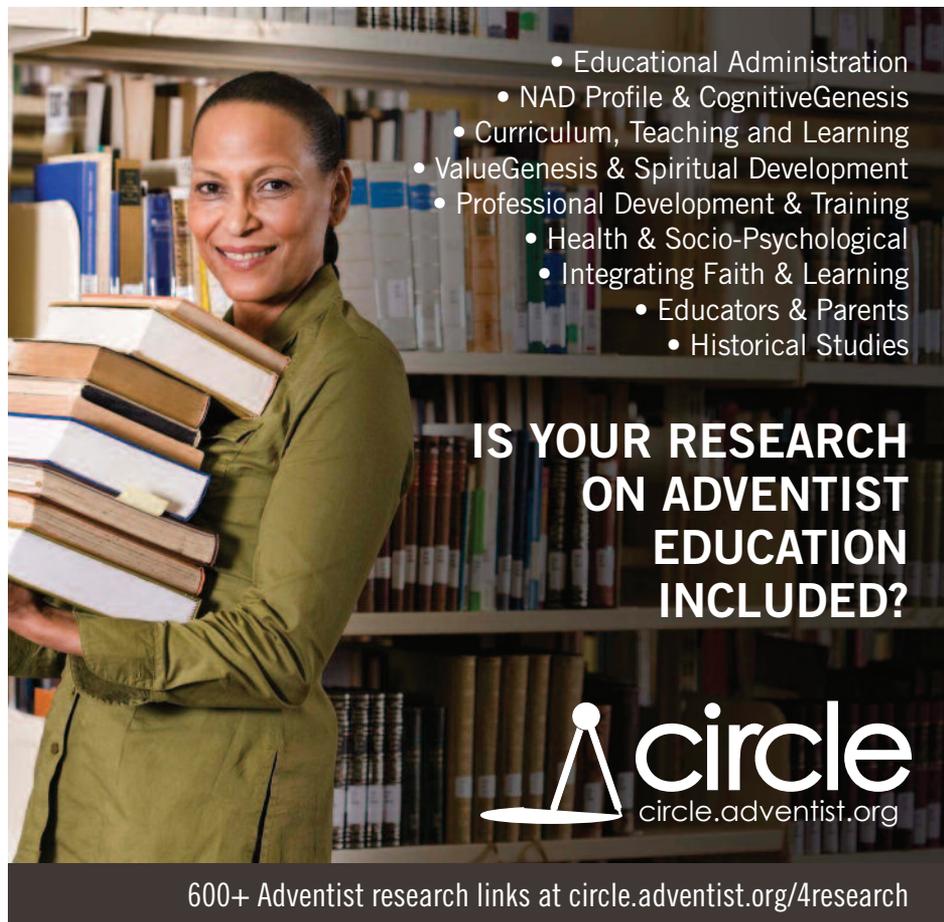
Energy from both the wind and the sun can be harnessed to produce electricity. Burning less coal and natural gas for electricity and heating/cooling buildings is beneficial to the environment. If you live where city/county ordinances don't prohibit wind turbines, consider buying and installing a roof- or tower-mountable vertical-axis wind turbine.¹⁶ If your home or school does not use all the energy produced by the wind turbine, the generator can be tied into the electrical grid, or you can store the energy in a battery. Some localities give tax credit for installing wind turbines.

Solar panels are becoming more efficient and available for homes and schools. Some European countries, such as Spain and Germany, are far ahead of other nations in solar power utilization.¹⁷ After in-

stalling the solar panels, you can use them to create power to operate a hot water heater or to heat your home or school. Current technology has made flexible solar cells affordable, so that people can use them to charge portable electronic devices, such as cellular phones and small computers.

Involve Your Church in Conservation

While your family and school can do much to care for the environment, you and your colleagues have an opportunity and an obligation to make your church more sensitive to environmental concerns. Share with parents and church members the biblical reasons for taking care of God's creation and challenge them to be good stewards.¹⁸ Raise people's consciousness about conservation, and collaborate with your constituents, church elders, and pastor to take simple measures to care for the environment: creating an appreciation for nature by organizing walks, camping trips, etc.; printing church bulletins on recycled paper; placing recycling containers in the church building; and arranging seminars on some of the environmental concerns mentioned in this article, such as recycling, composting, catching rainwater, and being responsible stewards of God's creation. ✍



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Recommended Books and Websites

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<http://www.vegetariansrecipes.org/>

<http://www.syvm.com/recipes/ivrindex.html>

<http://www.epicurious.com/>

<http://www.foodnetwork.com/>

<http://www.adventistbookcenter.com>

This article is adapted from a chapter in the new book *Entrusted: Christians and Environmental Care* (Adventus, 2013), and is printed with permission from the editors and publisher. For more information about the book, see <http://www.adventus21.com>.



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2. See Beverly J. Robinson-Rumble, "Creating a Butterfly Garden at Your School," *The Journal of Adventist Education* 71:3 (February/March 2009):26-29: <http://circle.adventist.org/files/jae/en/jae200971032604.pdf>.

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6. Pauline Pears, *All About Compost: Recycling Household and Garden Waste* (Tunbridge Wells, Kent, U.K.: Search Press, 1999).

7. See Mike Woolnough, *Worms and Wormeries: Composting Your Kitchen Waste . . . and More!* published by The Old Pigsties, Clifton Fields, Lytham Road (Preston, U.K.: The Good Life Press, Ltd. PR4 0XG, 2010).

8. "What Do Worms Eat?": <http://www.professorhouse.com/Your-Home/Gardening-Plants/General/Articles/What-Do-Worms-Eat/>. Accessed October 23, 2011; Mary Appelhof, *Worms Eat My Garbage: How to Set Up and Maintain a Worm Composting System* (Kalamazoo, Mich.: Flower Press, 1997).

9. G. Bornstrom, "Impacts on Demand for and Quality of Land and Water," presentation for the 1981 annual meeting of the American Association for the Advancement of Science, cited in Sandra Blackmer, "What Are the Ethical Issues Related to the Livestock Industry?" *Entrusted*, Stephen Dunbar, L. James Gibson, and Humberto M. Rasi, eds. (Adventus, 2013), p. 94.

10. Sierra Club, "Choosing for Nature: Three Times a Day: The True Cost of Food": http://www.sierraclub.org/sustainable_consumption/toolkit/choosing.pdf. Retrieved January 17, 2012. Cited in *ibid*.

11. See Blackmer, "What Are the Ethical Issues Related to the Livestock Industry?" *Entrusted*, op. cit., Chapter 9.

12. "Rainwater Harvesting": http://en.wikipedia.org/wiki/Rainwater_harvesting. Accessed November 20, 2011.

13. An example of harvesting rainwater is the one in use at the Tasba Raya Seventh-day Adventist Mission station in Nicaragua in an area where there are no wells. In this area, the rainy season is followed by three months of drought. To overcome the water shortage, the Union College (Lincoln, Nebraska) International Rescue and Relief program set up a rain-capturing system consisting of a large building with a 30- by 85-foot (about 9- by 26-meter) zinc roof and sufficient guttering system to capture the rainwater. The collected water is stored in a 40,000-gallon (151,400-liter) masonry cistern. Even during a light rain, water rushes at a speed faster than one gallon per second. The water is stored in the cistern and pumped out during the dry season. The system is large enough to supply 30 to 40 people with all the water they need for cooking and drinking (with a limit of four liters per person per day for cleaning). All drinking water is filtered with a Berkey water filter system ("Berkey Water Filter. Water Purification Systems and Filtration": <http://www.berkeyfilters.com/index.html>. Accessed November 29, 2011).

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18. Tri Robinson with Jason Chatraw, *Saving God's Green Earth: Rediscovering the Church's Responsibility to Environmental Stewardship* (Norcross, Ga.: Ampel Publishing, 2006).



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NOTES AND REFERENCES

1. In all fairness, the steakhouse also featured an excellent salad bar. So perhaps, only a potential disconnect.
2. Genesis 1:28. All Scripture quotations in the article and endnotes are from *The Holy Bible, New International Version*. Copyright © 1973, 1978, 1984, 2011 by Biblica, Inc. Used by permission. All rights reserved worldwide.
3. Matthew 6:26; 12:11, 12.
4. Isaiah 44; Romans 1:25. A similar pantheistic worldview pervades the New Age “Mother Earth” perspective.
5. 2 Peter 3:10-12.
6. Isaiah 65:17; Revelation 21:1.
7. Matthew 28:18-20.
8. In Genesis 1, God repeatedly assesses the creation as “good” and “very good,” conveying its God-given value. See also Exodus 20:11; Nehemiah 9:6; Psalm 95:5; Jeremiah 32:17; John 1:3; Ephesians 3:9; Colossians 1:15-17; Hebrews 1:2; and Revelation 4:11; 14:7; 11:17, 18.
9. Genesis 1:26-28. God’s command that humans were to have dominion over all created things has been used irresponsibly as an excuse to plunder the Earth. To *have dominion*, however, means *to be in charge of*. Thus, God put us in charge of *caring* for His creation.
10. Genesis 2:15. The Hebrew words *abad* and *shamar* in this passage, rendered in the KJV as *dress* and *keep*, could also be translated as *serve* and *preserve*.

In fact, the word *shamar* is also used in the Aaronic blessing (Numbers 6:24), “The Lord bless you and keep you.” In the same way that we wish for God to preserve us, we are to protect and care for His creation.

11. Exodus 9:29; Deuteronomy 10:14; 1 Chronicles 29:11; Job 41:11; Psalm 24:1, 2; 89:11; 95:3-5; 104:24; 1 Corinthians 10:26.
12. Leviticus 25:23-24; Psalm 8:6-8; Luke 16:2-13.
13. Job 12:10; Psalm 65:9-13; 104:10-14; 145:9-17; Isaiah 43:20, 21; Matthew 6:26; 10:29; Luke 12:6; Hebrews 1:3.
14. Genesis 6:19-21; 7:3; 9:1.
15. Genesis 9:8-10; 9:12-17. A covenant that includes the creatures of the field and the birds is also referenced in Hosea 2:18.
16. Exodus 23:4, 5, 10-12; Leviticus 25:2-7; Deuteronomy 5:12-15; 22:1-4; 25:4; Proverbs 12:10.
17. Deuteronomy 20:19.
18. Isaiah 24:4-6; Hosea 4:1-3; Joel 1:15-20; Zechariah 7:8-14; 11:1-3. Jeremiah, for example, writes: “I brought you into a fertile land to eat its fruit and rich produce. But you came and defiled my land” (2:7). “How long will the land lie parched and the grass in every field be withered? Because those who live in it are wicked, the animals and birds have perished” (12:4). “It will be made a wasteland, parched and desolate before me; the whole land will be laid waste because there is no one who cares” (12:11).
19. Ezekiel 34: 2-4, 17, 18; Isaiah 5:8-10; 24:4-6; Psalm 107:33, 34.
20. Revelation 11:18.

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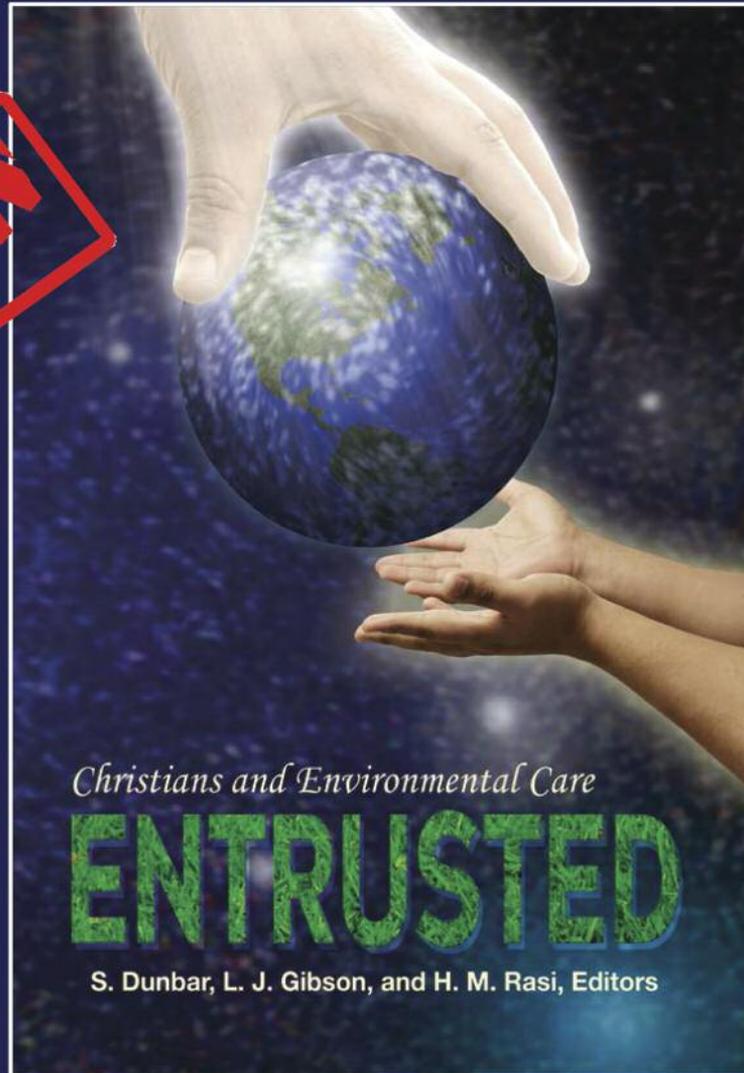
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