Adapted from the Jane Goodall Institute’s Roots & Shoots Program.

“Roots creep underground everywhere and make a firm foundation. Shoots seem very weak, but to reach the light they can break open brick walls. Imagine that the brick walls are all the problems we have inflicted on our planet. Hundreds and thousands of roots and shoots, hundreds and thousands of young people around the world, can break through these walls. You can change the world.”

Jane Goodall

The Roots & Shoots mission is to foster respect and compassion for all living things, to promote understanding of all cultures and beliefs and to inspire each individual to take action to make the world a better place for the environment, animals and the human community. All Roots & Shoots members, from pre-K to university, demonstrate their care and concern for all living things through service projects in their community.

The Roots & Shoots program began in 1991 in Dar es Salaam, Tanzania, with a gathering of 12 students on Dr. Jane Goodall’s back porch. The groups met with Dr. Jane to discuss a range of problems they knew about from first-hand experience that caused them deep concern. Their discussion covered topics such as pollution in the city, deforestation in the mountains, the welfare of domestic animals and the future of wild animals, including Dr. Jane’s threatened chimpanzees.

These motivated young people wanted to learn more, they were willing to take action and they hoped that their peers would join with them to help make a difference, and Roots & Shoots was born.

The Roots & Shoots is based on the philosophy that:

- Every individual matters, whether human or animal.
- Every individual has a role to play.
- Every individual can make a difference.

Through the completion of a series of activities, Girl Scouts will become involved in projects to help save animals and the environment as well as each other, their communities and their world.

Membership in the Jane Goodall Institute is not required to participate in the Girl Scout Roots & Shoots program, but you may find many of the programs and resources helpful in planning and implementing your own community service activities. For more information, visit www.janegoodall.org.

Complete a total of seven activities including two Discover, two Connect, one Take Action and two other activities chosen from any category.

**Discover:**

1. Learn about an endangered plant or animal. Research the history of how it became endangered. How could this have been prevented? Is there anything that can be done to prevent extinction?

2. What are some of the tools researchers use to learn about factors that impact the environment? How have these tools effected or changed the way we live on earth? Research at least one of the following and what tools are being used to measure or collect information
   - Air and water pollutants
   - Weather
   - Contaminants in the soil
   - Activities on the sun
3. Research the life of Jane Goodall. What education and training did she receive for the work she is doing today? What skills did she develop and what techniques did she use during her career? Did she have a mentor or teacher?

4. Learn about birds that migrate through your community. Are they likely to have a safe, healthy journey? Where did they start and what is their destination? What happens to them if their winter or summer habitat is destroyed or if sites along their migratory route are destroyed.

5. Find out how land development has affected plants and animals in your local area. What can be done to help improve situations caused by development?

**Connect:**

1. Research five global concerns for the environment, such as destruction of rainforests, water contamination or ozone depletion. Interview people in your community if they are aware of how these problems will affect the quality of life on this planet now and in the future. Contact three organizations to learn how they are addressing global environmental issues.

2. Write to the Roots & Shoots Club in Africa (Jane Goodall Institute, P.O. Box 727, Dar-es-Salaam, Tanzania, Attn: Jane Walsh). Find out what its members are doing about preserving or rebuilding the habitat for endangered animals. Find out what the members of Roots & Shoots Clubs are doing to spread information about endangered species.

3. Identify two different women working in environmental careers and ask them to visit your troop meeting or arrange to talk to them about their career. What kind of education is necessary? What kind of specialists are needed in other countries?

4. Design the perfect place to live. Does it have trees? Why would you want trees around this place? List all the reasons trees are beneficial to us and the environment. Find out what builders, landscape architects and biologist consider when planning a new site. Find out how new homes are advertised. How is landscaping important in the picture? Show the difference between planning and not planning of trees and other plants in building a home. What are some of the pitfalls that can be avoided?

5. Visit the web site for Chimpanzoo (www.wcsu.ctstateu.edu/cyberchimp/chimpanzoo.htm/). Find out what the program is about and how many chimps and zoos are participating. Write or e-mail to find out the status of the research. Find out if there is a zoo near you that is participating in the chimpanzoo project.

**Take Action:**

1. Organize an environmental day for troops in your service unit. Demonstrate positive care of the environment in a wide game. For example:
   - Show how an oil spill or the introduction of non-bio-degradable materials in the woods, lake and streams affect plants and animals.
   - Demonstrate ways to tell if packaging is made of recycled materials and can be recycled.
   - Sort litter into recyclable or non-recyclable or let girls compare litter to demonstrate ways to help the problem.

2. Design posters, flyers or exhibits for libraries and/or schools to share information about what is being done and what needs to be done to keep an endangered species from becoming extinct.

3. Erect bird houses or bird feeding stations at a local park, school or Girl Scout camp. Organize a group to help stock the feeders with food all year and protect the site from noises and animals that would keep the birds from using the feeding station or bird house. The biggest predator of birds in suburban areas is domestic cats. Help raise awareness of this if it is a problem in your area.

4. Share environmental awareness with younger children. Develop a play or activity that describes some of the environmental problems our world faces today. Teach them environmental songs and games.

5. Organize an environmental day for the troops in your school or service unit. Demonstrate positive care of the environment. For example, set up stations to show how plants and animals are affected by an oil spill and non-bio-degradable materials in the woods, lakes and streams, how to tell if packaging is of recycled materials or can be recycled or let girls compare litter to demonstrate ways to solve the problem.