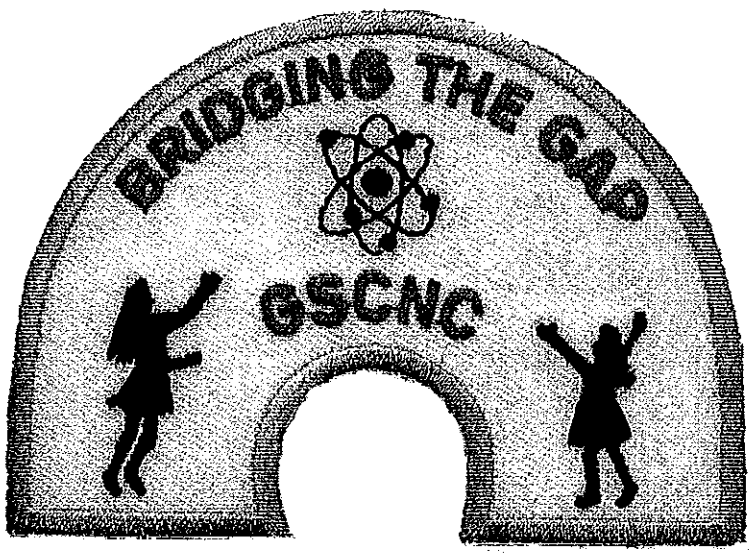
Eco-Action

Adult Resource Guide



Cadette Senior Interest Project Patch

Introduction

Are you an adult Girl Scout who works with older girls? This book is written for you. It does not matter if you are a troop leader, a Bridging the Gap volunteer, or professional staff. This Bridging the Gap resource book is written for all Girl Scout adults who are supporting Cadette and Senior Girl Scouts using the Bridging The Gap Cadette and Senior Girl Scout Interest Project Patch Guides and materials. A combination of both leader guide and council guide, this book is intended to be used as a training piece and a resource guide for the following Bridging the Gap Interest Project Patch guides:

- Math, Maps and More
- Build a Better Future
- Eco-Action
- Space Exploration

Why Choose These Interest Project Patches?

The activities for these four Interest Project Patches incorporate a great deal of mathematics, physics, chemistry, and technology. If girls are going to succeed in many careers, including, but not limited to, science, mathematics and technology careers, they need to become comfortable with these four different "gatekeeper" subjects. To some, these subjects seem difficult, boring and unfeminine. In middle and high school, girls in particular may avoid them. However, girls are just as talented in these areas as boys are. It is important for Cadette and Senior Girl Scouts to have positive exposure to these subjects as part of Girl Scouting with its nurturing, all-girl environment and strong female role models. It is part of what today's girls need to grow strong.

What Happened to My Leader Guide?

Prior to national release, all Bridging the Gap guide books and materials are tested with Girl Scouts and Girl Scout Leaders. During testing of the Interest Project Patch Leader Guides, it was discovered that the types of Leader Guides which work so well for younger Girl Scouts did not adequately meet the needs of today's Cadette and Senior Girl Scouts and their leaders. Evaluation led to the development of a new, girl-centered approach for doing Bridging the Gap Science Activities with Cadette and Senior Girl Scouts.

The most obvious change is that the Cadette and Senior Girl Scout books are not Leader Guides. Instead they are ***Interest Project Patch Guides*** designed to be used directly by the girls as a resource. Other changes include:

- Revised girl-friendly format;
- Materials provided in bags that serve 1-5 girls that can be checked out by the girls;
- Adults serving in a support role instead of a teaching role;
- Interest Project Patch planning by the girls;
- Independent work on the patches by girls, whether at home or at a troop meeting;
- Additional background and resource material available on the internet.

As you use this resource guide, remember that you are the expert when it comes to meeting the needs of your girls.

Review the new Interest Project Patch Guides. You will see how they are written for a girl to use independently or with a group of friends. The activities can be done at home, at a troop meeting or in many other settings. Each guide includes an Interest Project Patch Planner to help the girls map the completion of the activities. An easy and interest-grabbing Get Started activity meets one Skill Builder or Technology requirement. Four more Skill builder or Technology requirements follow the Get Started activity. Ideas for related service projects and career links in addition to possible gold and silver links are listed after every activity. The girl can use these suggestions to design their own career exploration and service projects to complete the Interest Project Patch.

Each activity is designed to be done on a basic level with one to two hours of concentrated work. The girls should control the work pace for each activity. After all, it is their Interest Project Patch. The times given are minimum times and an activity may take longer if the girls really get involved with it. Socializing time will also extend the time needed to

complete the activity. Socializing while doing science, mathematics and technology activities is a very positive thing for middle and high-school age girls and should be encouraged.

Do We Still Have Tubs?

You still have tubs at the service unit level. However, the tubs will contain three bags of materials, which will serve up to five girls each. The bags will also contain materials to restock the consumable items. Each bag will contain a copy of the Interest Project Patch guide and a minimum supply of essential materials needed for 1-5 girls to do the activities, including some consumable materials that will need to be replaced. Consumable items are included so that girls who use the materials will not be required to purchase anything to complete the activities.

While some girls may wish to purchase additional materials if they become more involved in an activity, this is not necessary. Bridging the Gap tubs should contain a stock of these consumable items so the troop leader or volunteer science consultant can restock the bag with fresh supplies before the girls check them out. These materials can be obtained locally and include items such as yarn, ribbon, Alka-Seltzer®, and powered soft drink mix. Tips for locating and supplying the materials will be included in each activity section.

Most of the activities only require the girls to provide paper and pencil and occasionally things such as an oven, sunlight, or access to the Internet or library. Internet access is desirable but not absolutely necessary. While many girls do not have Internet access at home, they may have Internet access at school, a community center, or public library. There is a wealth of valuable resource information on the Internet today from federal agencies such as NASA and the EPA as well as websites maintained by professional societies and universities.

Depending on the size of your troop or the number of girls interested in doing the Interest Project Patch, you may not need to check out an entire tub of materials. One bag may be enough. As with all Bridging the Gap materials, materials distribution is determined by each individual council. This section only offers information on how the materials were initially designed to be used. Each council should choose a method that best meets the needs of the girls it serves. As always, the best way to use Bridging the Gap materials is what works best for you and your council.

How Should I Use The Materials With Girls?

Again, you are the expert on how to best serve your girls and these are only suggestions. These materials are designed to be flexible for use in a variety of formats. Cadette and Senior Girl Scout troops have many different meeting structures; there are also individually registered girls who need access to program materials. Rather than take a one-size-fits-all approach, the guides and materials are girl-centered so that the girls can decide how, when, and where, they want to work through the activities. Older girls can work on Interest Project Patches in a variety of situations such as:

- An individually registered girl, or as a single girl registered in a troop;
- A group of girls within a troop;
- The whole troop working together at troop meetings;
- Overnights and other special service unit or council events;
- Part of an outreach program or special interest group.

One way to spark the girls' interest in the Interest Project Patches is to do the Get Started Activity from the Interest Project Patch guide with them. If the girls have fun with the Get Started activity, then have them review the Activities At A Glance section and the Interest Project Patch Planner sheets. Let the girls plan if and how they want to complete the Interest Project Patch. The Interest Project Patch Planner sheet, career links and service project ideas in the guides are tools that you or the girls can use if you choose. You are not required to use them.

Depending on the number of girls who will be working on the Interest Project Patch at one time you may only need to check out one or two bag of materials from your volunteer science consultant. Individual girls could then take the materials home and do the activities on their own. Small groups of girls within the troop may want to work on the activities only at troop meetings, or if the troop only meets once or twice a month for a short time, they might want to work together outside of normal meetings.

If you are doing the activities as part of a large troop, you may need the whole tub to have enough materials. Often a troop overnight is a good setting for Bridging the Gap Interest Project Patch activities. While Brownie and Junior Girl Scouts are usually able to do hands-on science activities for only a short time, Cadette and Senior Girl Scouts have longer attention spans and enough stamina to go all night long if they are doing something they enjoy with their friends.

If you are doing these activities as part of a special council or service unit event, one tub can serve many girls, in rotating groups of 15 or less, as long as you have enough consumable materials available for all the girls and you take the other materials out of the bags and reorganize them by activity. If the groups for each activity are larger than 15 girls, you will need to use additional bags to have enough materials.

If the Interest Project Patch guides and materials are used as part of an outreach program or special interest group, you may be able to use the materials as they are normally packaged. However you may need to customize how they are used to meet the particular needs of the group you are working with. Feel free to structure the activities and use the materials in a way that best meets the needs of your girls.

Overview of This Book

To give you a brief overview of the Interest Project Patch guides, the next section of this book will reproduce the opening Introduction pages, directed to the girls, found in each guide. This introduction is followed by the Activities At A Glance section of all four guides and a sample Interest Project Patch planner page. Additional information about each Interest Project Patch guide follows and is broken down by activity. This information will include an introduction to each Interest Project Patch topic, a synopsis of and the purpose behind each activity and tips about how to assist the girls while they are doing the activity. This will be followed by information on how to replace the consumable items and a complete materials list. Career links, service project ideas, and gold and silver links will also be listed for each activity. The remainder of the book will include appendices, which will group this and other material together in different ways to make it easier to find.

Introduction to Interest Project Patch Guidebooks for Cadette and Senior Girl Scouts

Who, What, Why, When, Where, and How?

Who? You, of course! This Bridging the Gap Interest Project Patch Guide was written to give Cadette and Senior Girl Scouts extra resources to make it easier to investigate science, engineering, and mathematics Interest Project Patches.

What? What is Bridging the Gap (BTG)? Bridging the Gap is a nationally recognized science education program developed specifically for Girl Scouting. BTG promotes the idea that girls can learn and have fun exploring science, engineering, and mathematics activities when given the opportunity to try them in a girl-friendly environment.

You may have already tried BTG activities as a Daisy Girl Scout, Brownie Girl Scout, or Junior Girl Scout and know how fun they can be. Fun is of special importance to Bridging the Gap. After all, LEARNING IS DIRECTLY PROPORTIONAL TO THE AMOUNT OF FUN YOU HAVE!

Why? Why do Bridging the Gap activities? Understanding science and mathematics and being comfortable with engineering and technology can help you succeed in any career path you choose. If you dream of becoming an astronaut or a marine biologist, you know you need strong math and science skills. What many people do not realize is that in today's world, science, math, and technology play a major role in everything we do. So if instead, you dream of becoming an artist, an athlete, or businessperson, you will be better prepared if you have a strong background in science and mathematics. Here are the facts:

- Women with good math skills earn more than women without these skills;
- Engineering will be among the highest paying and fastest growing occupations over the next decade; and
- The fastest growing occupations all require strong backgrounds in science, technology, math and/or engineering.

When? You can work on your Interest Project Patch whenever you want to do so. Use the Planner Page and Outline to decide which activities you want to do and plan when you want to complete them. One of the great things about being a Cadette or Senior Girl Scout is that you plan your own activities. Just remember to consult with your troop leader or an adult advisor and always follow Safety-Wise guidelines.

Where? Bridging the Gap activities can be done almost anywhere—at home, at troop meetings, at service unit or council events, at school, or any place you find Girl Scouts. You can even complete some of the activities over the Internet. Some activities require electricity or access to hot water, but each activity section will list what you need before you begin.

How? How do you know if you want to try this Interest Project Patch? Try the Get Started Activity first. To complete the patch requirements, you must choose at least 7 activities:

- 2 Skill Builder activities
- 1 Technology activity
- 1 Service Project activity
- 1 Career Exploration activity
- 2 more activities from any category you choose

The Get Started Activity counts as one of the seven required activities, leaving only six to complete the Interest Project Patch. Each activity in this Interest Project Patch Guide will help you complete a different Skill Builder or Technology activity and will have more suggestions for possible Career Exploration activities and Service Projects. Additional links are provided to help you connect this Interest Project Patch to a future Gold or Silver project.

Activities at a Glance
Eco-Action

Read the activity descriptions below and then try the Get Started with Going Solar activity to see if you would like to learn more about the subject of this Interest Project Patch. Then refer to pages 58-59 of *Interest Projects for Cadette and Senior Girl Scouts* and the corresponding activities in this guide to decide which activities you want to do to complete your Interest Project Patch.

In the Get Started with Going Solar section, you will explore the potential of solar energy to meet society's need for electricity as you complete Technology 1.

Additional activities in this guide provide hands-on activities to:

- ❑ Discover what happens to plastic after you put into a recycle bin for Technology 5;
- ❑ Discover how the types of trash have changed over time and explore the connection between what you use and the trash you create as you complete Skill Builder 1;
- ❑ Experiment with spinning and dyeing natural and synthetic fabric as you explore the relationship between your cultural values and traditions and how you view your relationship to the earth for Skill Builder 4; and
- ❑ Develop your own criteria to help you define the term "environmentally friendly" as you complete Skill Builder 5.

These activities are only suggestions. Some of the activities will go beyond the basic suggestions in the Interest Project Patch requirements listed in *Interest Projects For Cadette and Senior Girl Scouts*. If an activity in this book isn't interesting to you, change it or choose another activity. Remember, this is your Interest Project Patch!

Sample Planner Page for Interest Project Patch Guides

Make a copy of this sheet to plan your Interest Project Patch activities.

My Interest Project Patch Plans

My two Skill Builders are:

1)

2)

My Technology activity is:

1)

My other activities are:

1)

2)

My Service Project is:

1)

My Career Exploration activity is:

1)

My Gold or Silver links could be:

Eco-Action Interest Project Patch Guide

This information will include an introduction to each Interest Project Patch topic, a synopsis of and the purpose behind each activity and tips about how to assist the girls while they are doing the activity. This will be followed by information on how to replace the consumable items and a complete materials list. Career links, service project ideas and gold and silver links will also be listed for each activity.

This Interest Project Patch is designed to help girls discover for themselves what they believe it means to be environmentally friendly and what eco-action means to them. Scientists are continuously learning about what is good for the environment as well as discovering new reasons for environmental concern. The Get Started activity introduces the girls to the potential of solar energy. The next two activities deal with the issues of recycling and reducing trash. The last two activities explore the roles of culture and technology and how they affect our environment.

Get Started With Going Solar

Civilizations and societies would not exist without energy. Since prehistoric times, people have used an energy source for heat, cooking, and lighting. Today's world is very dependent on electricity as an energy source but where does that electricity originate? One way of producing electricity is to use solar cells, which use sunlight to produce electricity. Is this a practical? The girls will use a solar cell to power a small electrical motor in this activity for Technology 1.

The purpose of this activity is to let girls learn about solar energy by experimenting with a real solar cell and motor. To keep material costs down, only one solar cell and motor assembly is included per bag of materials. Make sure that all the girls get a chance to experiment with it. The solar cell works best in natural sunlight.

Bag Contents

- ❑ 1 solar cell and motor assembly
- ❑ 1 fan blade
- ❑ 1 holographic disk
- ❑ 1 white plastic wheel
- ❑ 1 piece of silicon
- ❑ 1 paper spiral disk
- ❑ 1 pair of scissors

Consumable Items

This activity does not have any consumable items. The solar cell and motor assembly can be fragile. If it breaks, a replacement can be purchased from Radio Shack® at local stores or online at www.radioshack.com. The part number is 227-1201.

Career Links

- ❑ No matter what kind of job you seek, you will need to use electricity or some other form of energy to work. Brainstorm ways you could use solar energy or some other renewable source of electricity in your future career.

Service Project Ideas

- ❑ Are there places where your troop meets or a council outdoor site that could use solar energy to produce electricity?

Gold and Silver Interest Project Patch Links

- ❑ Analyze how you depend on different energy sources to complete your Gold or Silver Project. Are there changes that you can make to your project plan that can help conserve energy?

Recycle It!

Many communities recycle aluminum, plastic, paper and glass. What happens to these materials after they are collected? In this activity for Technology 5, the girls will explore what happens to plastic after it is collected and learn how a soda bottle can be turned into a shirt.

The purpose of this activity is to learn about recycling codes and the different kinds of plastic that can be recycled. Each of these plastics has different properties, which the girls will discover by performing basic experiments. The girls need adult permission before beginning the final activity that involves using a hot skillet to melt recycle code #1 plastic and recycle it into polyester fiber. This activity requires that the girls obtain more items on their own than other Interest Project Patch activities. While these items can be found in most kitchens, some girls may need help obtaining materials.

Bag Contents

- ❑ 1 pair Scissors
- ❑ 2 permanent markers
- ❑ 1 soda bottle preform
- ❑ 6 disposable bamboo chopsticks
- ❑ 1 small bag of polyester fiberfill

Consumable Items

This activity does not have any consumable items. You may need to replace the chopsticks and the permanent marker over time.

Career Links

- ❑ Learn what Green Chemistry is and how chemistry can be used to prevent pollution.

Service Project Ideas

- ❑ Design a collection system that helps people correctly sort trash for school or you troop's meeting place.

Gold and Silver Interest Project Patch Links

- ❑ Instead of using traditional trashcans to collect waste when you do your Gold or Silver Project, set up an area to collect materials, which are recyclable. Try to design it so it is easy for people to use. After the project, evaluate how well your system worked.

Trash Talking

Where is all the garbage coming from? How is trash different today from what it was 150 years ago or even 75 years ago? Do we produce more trash or just different types of trash or do we do both? Are there ways to reduce the amount of trash we produce? These are all questions the girls will explore while doing this activity for Skill Builder 1.

The purpose of this activity is to introduce to girls to precycling. Precycling reduces trash by not creating it in the first place. Disposing of trash has always been a problem throughout human history. What is different today is the kind of trash we produce as a society. Packaging for the items we buy can be a big contributor to what ends up in our household trash and this is an area where the girls can have a direct effect on the environment.

The girls can do this activity at home on an individual basis. If working in a group, they can share what they have discovered with each other completing the activity.

Bag Contents

- ❑ None

Consumable Items

This activity does not have any consumable items.

Career Links

- ❑ Check www.eco.org for links to information about environmental careers.

Service Project Links

- ❑ Survey the snack habits of Brownie and Junior troops in your community or service units. Produce guidelines for environmentally friendly snacks that are also quick, easy and popular. Share the information with others and start an environmentally friendly snack campaign.

Gold and Silver Ideas

Precycle and shop smart to reduce waste as you work on your Gold or Silver project.

Culture, Clothing, and the Environment

An important part of how people feel about the environment depends on their culture and beliefs. How we view the world around us affects how we interact with it. The clothes we wear say a lot about our values and our culture as well as how we use resources. In this activity for Skill Builder 4, the girls will explore the different viewpoints Navaho and Western European cultures have about dyeing and spinning wool to weave into cloth.

The purpose of this activity is to learn about how our cultural views affect how we all, both girls and adults view the environment. Different cultures have different world views which leads to some very different ideas on what is good for the environment. The girls won't find this cultural diversity nearly as interesting as dyeing yarn with Kool-Aid® or other brands of powered soft drink mix.

This is a high interest, messy activity as most dyeing activities are. Two reference books are included which give some excellent background information to do the activity and suggest additional activities to girls who want to go further.

Bag Contents

- ❑ 1 small bag Wool fiber and 10 yards Wool yarn
- ❑ 1 small bag Polyester fiber and 10 yards Polyester ribbon or yarn
- ❑ 20 strips of Multi-fiber Test ribbon
- ❑ 1 book—*The Chemistry of Natural Dyes* by Dianne N. Epp
- ❑ 1-book—*Navaho Weaving Way* by Noël Bennett and Tiana Bighorse
- ❑ 10 packets of *unsweetened* powdered soft drink mix such as Kool-Aid® or Flavor Aid®

Consumable Items

This activity has four different consumable items, powered soft drink mix, wool, polyester and multi-fiber test ribbon. Girls generally have so much fun with this activity that they will use all the materials available so the amount included in each bag is kept to a minimum. The girls may want to purchase or obtain more materials, so be prepared.

The Kool-Aid® or other brands of powered soft drink mix can be purchased at grocery stores. Buy the inexpensive unsweetened kind, which contains citric acid, flavoring and U.S. Certified Food Colors such as Red #40, Blue #1 and Yellow #5. Try to buy flavors which only contain a single type of food coloring. You will need to buy two different colors so that the girls can compare the results. A flavor with only Red #40 and another flavor with Blue #1 give excellent results.

The girls will be dyeing both polyester and wool. It doesn't matter if it is in the form of ribbon, yarn, fabric or unspun fiber. What matters is that it is pure polyester or pure wool and that it doesn't have a finish on it that will prevent it from absorbing the dye. You can find 100% polyester ribbon and polyester fiberfill where craft items and fabric are sold. 100% wool may be hard to find depending on what part of the country you live in, but may be found at these same craft or fabric stores. Sometimes wool and wool yarn is also available at specialty knitting or needlework shops. You can also purchase wool and wool yarn from *Earth Guild* at www.earthguild.com, 800-327-8448. The multi-fiber test ribbon as well as wool fiber can be purchased from *Educational Innovations* at www.teachersource.com, 888-912-7474.

Career Links

- ❑ Dyeing yarn and cloth can be a source of water pollution. Become an environmental scientist by doing the acid rain activity found in the Girls Science Network part of www.plugged-in.org.

Service Project Links

- ❑ Help younger girls explore natural and manufactured fibers and learn about traditional clothing from different cultures. You could do this as part of a Thinking Day celebration.

Gold and Silver Interest Project Patch Links

- ❑ No matter what kind of Gold or Silver project you do, design it so it promotes a positive environmental message.

Environmentally Friendly

While completing this Interest Project Patch, the girls should have discovered new ideas and explored new options. What sorts of things should they look at when developing personal criteria for what is environmentally friendly? To complete Technology 4, the girls will take all they have learned so far to develop their own personal plan for eco-action.

The purpose of this activity is to introduce the girls to the idea of sustainable development and to pull together all the ideas explored while earning this Interest Project Patch. Each girl needs to take into account her own cultural and personal values and combine it with what she has learned about precycling, recycling, and alternative energy sources and come to her own conclusion about what "environmentally" friendly means to her.

Bag Contents

- ❑ None

Consumable Items

This activity does not have any consumable items.

Career Links

- ❑ Explore websites to learn more about government, public, and private organizations that are committed to eco-action. What sorts of career opportunities are available?

Service Project Ideas

- ❑ Design an eco-action project of your own to make a difference about something you believe is important.

Gold and Silver Interest Project Patch Links

- ❑ Put your personal definition of environmentally friendly into practice with your Gold or Silver project.

MATERIALS LIST FOR ECO-ACTION ACTIVITIES

Going Solar
Materials
From your leader:

- ❑ 1 Solar cell and motor assembly
- ❑ 1 Fan blade
- ❑ 1 Holographic disk
- ❑ 1 White plastic wheel
- ❑ 1 Piece of silicon
- ❑ 1 Paper spiral disk
- ❑ 1 pair Scissors

To get yourself:

- ❑ Invisible tape
- ❑ Index cards or heavy paper
- ❑ Colored pencils, or crayons
- ❑ Sunlight and/or other light source

Recycle It!
Materials
From your leader:

- ❑ 1 pair Scissors
- ❑ 2 Permanent marker
- ❑ 1 Soda bottle preform
- ❑ 6 Disposable bamboo chopsticks
- ❑ 1 small bag Polyester fiberfill

To get yourself :

- ❑ Samples of plastics with recycle codes 1,2,3,4,5,6
- ❑ Pencil or pen
- ❑ Regular or toaster oven
- ❑ Aluminum foil, (heavy duty type is best)
- ❑ Small muffin pan or baking sheet
- ❑ Oven mitt or potholder
- ❑ 3 reusable or recyclable cups or glasses (6 ounces or larger, clear ones work best)
- ❑ 3 spoons
- ❑ ½ cup vegetable oil (Tip--Check the ingredients to see what kind of oil. Soybean works well)
- ❑ One cup of water
- ❑ One tablespoon of salt
- ❑ Electric skillet or range top and heavy frying pan

Trash Talking
Materials

From your leader:

- ❑ None

To get yourself:

- ❑ Trash from your home
- ❑ Container in which to collect trash

Culture, Clothing, and the Environment
Materials
From your leader:

- ❑ 1 small bag Wool fiber and 10 yards Wool yarn

- ❑ 1 small bag Polyester fiber and 10 yards Polyester ribbon or yarn
- ❑ 20 strips of Multi-fiber Test ribbon
- ❑ 1 book- *The Chemistry of Natural Dyes* by Dianne N. Epp
- ❑ 1 book—*Navaho Weaving Way* by Noël Bennett and Tiana Bighorse
- ❑ 10 Packets of *unsweetened* powdered soft drink mix such as Kool-Aid® or Flavor Aid®

To get yourself:

- ❑ 2 Heat resistant cups
- ❑ 2 Spoons
- ❑ White paper towels
- ❑ Aluminum foil
- ❑ Watch or minute timer
- ❑ Source of boiling water
- ❑ Heatproof measuring cup
- ❑ Access to sink or running water
- ❑ Baking soda or bleach based cleaner for cleanup
- ❑ Microwave oven (optional)

Environmentally Friendly Materials

From your leader:

- ❑ None

To get yourself:

- ❑ Internet access if possible

Career Links List for Eco-Action

Going Solar

- ❑ No matter what kind of job you seek, you will need to use electricity or some other form of energy to work. Brainstorm ways you could use solar energy or some other renewable source of electricity in your future career.

Recycle It!

- ❑ Learn what Green Chemistry is and how chemistry can be used to prevent pollution.

Trash Talking

- ❑ Check **www.eco.org** for links to information about environmental careers.

Culture, Clothing, and the Environment

- ❑ Dyeing yarn and cloth can be a source of water pollution. Become an environmental scientist by doing the acid rain activity found in the Girls Science Network part of **www.plugged-in.org**.

Environmentally Friendly

- ❑ Explore websites to learn more about government, public, and private organizations that are committed to eco-action. What sorts of career opportunities are available?

Service Project Ideas for Eco-Action

Going Solar

- ❑ Are there places where your troop meets or a council outdoor site that could use solar energy to produce electricity?

Recycle It!

- ❑ Design a collection system that helps people correctly sort trash for school or you troop's meeting place.

Trash Talking

- ❑ Survey the snack habits of Brownie and Junior troops in your community or service units. Produce guidelines for environmentally friendly snacks that are also quick, easy and popular. Share the information with others and start an environmentally friendly snack campaign.

Culture, Clothing, and the Environment

- ❑ Help younger girls explore natural and manufactured fibers and learn about traditional clothing from different cultures. You could do this as part of a Thinking Day celebration.

Environmentally Friendly

- ❑ Design an eco-action project of your own to make a difference about something you believe is important.

Gold and Silver Interest Project Patch Links for Eco-Action

Going Solar

- ❑ Analyze how you depend on different energy sources to complete your Gold or Silver Project. Are there changes that you can make to your project plan that can help conserve energy?

Recycle It!

- ❑ Instead of using traditional trashcans to collect waste when you do your Gold or Silver Project, set up an area to collect materials, which are recyclable. Try to design it so it is easy for people to use. After the project, evaluate how well your system worked.

Trash Talking

- ❑ Precycle and shop smart to reduce waste as you work on your Gold or Silver project.

Culture, Clothing, and the Environment

- ❑ No matter what kind of Gold or Silver project you do, design it so it promotes a positive environmental message.

Environmentally Friendly

- ❑ Put your personal definition of environmentally friendly into practice with your Gold or Silver project

Silver and Gold Projects in Science
Real Stories from Real Girl Scouts

Silver Awards

* Nicole, age 15
  Kennebec Girl Scout Council
  Maine

"For my Silver Award project I put together a Mars Science Activity Kit and donated it to my council. The reason I chose to do this project was because I wanted younger girls to be able to know what was happening with Mars, some of the things that may happen in the future, and about Mars in general. I included a list of Web sites, science activities they could do, information about past, current and future missions to Mars, and general information about Mars."

* Alicia, age 16
  Hi-Low Girl Scout Council

"A friend and I got together to do our Silver Award. We planned and organized a Brownie Girl Scout Earth Day, encouraging Brownies to bring recycled products with them to use for crafts. There were four or five stations, a lunch break, opening and closing ceremonies, and song time (my favorite), where I led all of the girls in crazy songs. We involved several girls from our troop to run stations. Although things were rough at first, they eventually smoothed out and it convinced me to become a teacher because I love kids so much."

* Linda, age 13
  Mid-Continent Girl Scout Council
  Missouri

"My friend and I did a Science weekend. We chose this project because her dad is a science teacher so we would have resources. We also liked this project because we both like kids. We did this for a Brownie troop. It helped them earn the "Science in Action" try-it and it got them a Junior badge, which is one of their bridging requirements. My friend and I learned that Brownies want and can do things for themselves. Third grade Brownies are able to do more than we thought. We also learned the hardships of planning an event. We did have fun making paper and crystals. The Brownies had lots of fun too, and that's the most important part."

* Kaity, age 15
  Greater New York Girl Scout Council
  New York

"I got involved with beach clean ups with my family at our local beach. I decided to make this my Silver Award project (1995) by getting others involved. Through the American Littoral Society, I was given a beach to clean for the National Beach Clean Up. I involved my whole troop as well as the as the community. We contacted the community through our local newspaper and by hanging flyers all over town. We then asked local merchants to donate drinks and snacks for the volunteers. Before the

event, I held a workshop for Girl Scout troops in the area and had the parks department and other community workers talk about our role in cleaning up the beach, erosion, etc. We even made posters for store windows and held a poster contest. This was a lot of hard work for me but it paid off because that year we collected over 1200 pounds of trash and had some very unusual finds along the shore. The Annual Beach Clean Up is still being sponsored by my old troop at our local park, and I go to help out now as a Senior Girl Scout."

* Meredith T., age 17
  Mississippi Valley Girl Scout Council
  Illinois

"I planned a science workshop for girls in third through sixth grade. I had women scientists present science through music, water, creative solutions, and Earth Matters! It allowed these girls to have a hands-on experience, while seeing professional women scientists in action!"

Gold Awards

* Alicia
  Pine to Prairie Girl Scout Council

"I started a recycling program in our community. I started the program because our community did not have a recycling program and there was a need for recycling. I learned that it takes a lot of work to get recycling going. We wrote a grant, met with city board members, and did a lot of paperwork. Most of all, I know I did something good for my community, and it will continue now that I have finished it. The whole community and our environment benefited from this project. It was worth all the work."

* Serina, age 16
  Girl Scout Council of Hawaii
  Hawaii

"My Gold Project, entitled "Math = Fun + Logic," was a weekend workshop for 4th-7th grade girls. It is in this time period that girls may experience difficulty while learning math, and that they then give up on ever learning it. My project was to show the girls, through untraditional math problems, that they can be good at it, or at least be able to use math. I showed them that math is not only numbers and computations, it also is logic, sequence, pattern, connection, etc. Arithmetic is what most girls have trouble with, not the other math subjects; and arithmetic can only be improved through practice.

"At the workshop, I had the girls cook a meal with conversions and ratio, do string designs, learn magic tricks explained through math, and just become comfortable with their own individual math strengths and weaknesses. The favorite activities were a human checkers game (strategy and order) and a burning of our "math fears." I later presented each girl with a necklace containing the ashes of her fears to remind her that if she puts her mind to it, she can do anything—even math!"

* Sarah, age 18
  Morris Area Girl Scout Council
  New Jersey

"For my Gold Award project, I created a science program for first through third graders to introduce them to the idea that anyone can have fun with science. I chose the project because I have been interested in science since I was a young girl. I learned a lot about my own skills with people, especially children."

Gold and Silver Project Ideas

Even if your Gold Award project is not related to science, you can still incorporate skills you develop through Interest Projects in the "Nature, Science and Health" category into your project. Take a look at some of these ideas gathered from different web sites for Girl Scout Cadette/Senior troops across the country:

* Create an interpretive map for a self-guided historical walking tour around your community, using math and mapping skills.

* Present a series of games and workshops utilizing sensory experiences to show girls first-hand what it's like to be disabled.

* Involve your community in an effort to clean up a polluted area, such as a lake or stream. You can also organize a community effort to clean up and improve facilities at a local park or nature center.

* Develop a web page for your school, troop or Council, or assist in maintaining an existing one.

* Plan and implement a recycling program in your school. Get people involved through an educational campaign, teaching people about environmentalism and the benefits of recycling. Arrange for the program to be continued after you graduate.

* Repair a troop house, making sure it complies with Safety Wise standards. Build a wheelchair ramp, if the house doesn't already have one, and make other improvements to ensure the house is accessible to all.

* Create a landscaping project for your school or Council. Consult with a landscape architect, if possible, to learn more about irrigation, maintenance, design and other aspects of the project.

* Conduct stargazing workshops for younger girls, teaching them about constellations and astronomy. Volunteer at a local observatory to lean more.

* If you are interested in the arts, you can write and produce a play that touches upon such themes as environmentalism, space exploration, modern technology or another topic related to science or nature.

* Develop and distribute science activity kits, with instructions and materials, for children who are hospitalized with extended care needs.

* Work with a local historical society and/or extension service to create a native plants education program. Develop a resource binder with reference information for the project.

Eco-Action
Activity Survey

Approximately how long did you spend on each of the following activities?

Going Solar_____minutes

Recycle It!_____minutes

Trash Talking_____minutes

Culture, Clothing, and the Environment_____minutes

Environmentally Friendly_____minutes

What activity did you enjoy most, and why?

What activity did you like the least, and why?

Did you further explore any of the activities?

Which ones?

Give an example of what you did.

What can be done to make these activities more fun and/or successful?

Thank you for your help and your opinions!!!

Please return all forms to: _____
_____
_____