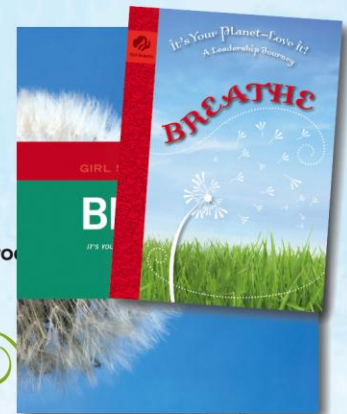


How to Offer *Breathe* as a Six-Week Cadette Series

First, attract girls by promoting the series with a fun title and introducing something like:



Don't Let Boys Have All the Fun!

What's Hot and Cool About Science, Technology, Engineering, and Math

Did you know that science, math, and engineering are as much a part of your daily life as the air you breathe? Think about it! Sirens in the night? A lesson in decibels. Cell phones beeping? Modern technology as daily distraction. A line of smog or a fresh ocean breeze? A reminder of Earth's atmosphere, and how countries halfway around the world are our next-door neighbors when it comes to air. Give your science smarts a stretch as you become a leader who cares for Earth's air!

Then, attract parents, volunteers, and teachers with the basic purpose of this series. Let them know that the series gives girls the opportunity to have fun as they explore the exciting and wide-ranging fields of science, technology, engineering, and math—which are also some of the highest-growth fields for future careers. Spread the word that the *Breathe* leadership journey's fresh and airy content also offers team-building and leadership skill-building activities that can lead to earning three prestigious leadership awards.

Next, plan your schedule for the full series. What follows is a sample schedule to use in full or adapt as you see fit. (All ideas spring directly from the content of *Breathe*—except for supplemental engineering content created in partnership with the National Science Foundation, as noted.)

How to Offer *Breathe* as a Six-Week Cadette Series

Week 1

SCIENCE: SO MUCH MORE THAN DISSECTING A FROG!

- “Symphony of Noise” opening activity (page 36, adult guide) and “Weighing in on Noise and Silence” (page 27, adult guide)
- Intro to the wide variety of science fields using local experts (a panel discussion is a great format to use)—aim for at least four experts. Be sure to include two experts who can guide the girls to greater air awareness (these could include meteorologists, biologists, forestry experts, wind farm or aeronautical engineers, parasailing instructors, astronauts, physicians or other health specialists, fragrance specialists, and yoga instructors), as this will move the girls through a step toward their AWARE Award. Also include someone who works with sound in some way, as this will relate to the opening activity of the series.
- “Harvesting Particulates: What’s Really in the Air” (also see “What’s in Your Air,” page 68, girls’ book)
- Girls’ book content: “Come on in and Breathe Awhile” and “The Sound of Silence,” pages 4–31; “What’s in Air?” pages 36–37; science profile of Marie Antoine, environmental scientist and botanist, page 58
- Get the girls started on their Air Logs (pages 14–15, girls’ book).
- Got more time? Try any science activities from pages 51–55 of the adult guide.

Week 2

ENGINEERING EVERYTHING!

- Intro to a wide variety of engineering fields, using experts from the community (and using Girl Scouts/National Science Foundation-created questions as a starting point)
- Girls’ book content: Engineer profile of Trudy Forsyth, wind engineer, page 94
- National Science Foundation’s (NSF) mechanical engineer and electrical engineer profiles (available to councils by the end of 2010)
- NSF’s “How Many Engineers Do You Know?” word puzzle and “Stack ‘em Up” engineering activity (available to councils by the end of 2010)

You might begin this engineering-focused gathering by giving the girls a general introduction that sounds something like, “Engineers are creative problem-solvers who aim to improve the world, increase productivity, and help people live better lives. They apply math and science principles to design just about everything from 3-D televisions to bionic arms to hybrid cars.

“Imagine how many engineers worked to improve airplanes so that they can carry up to 800 people, and how many engineers created the Kingda Ka roller coaster to safely accelerate to 128 miles per hour! Engineers not only work on exciting projects, but are also part of a growing field with above-average salaries.”

Let the girls know that, as engineers, they might:

- Develop the world's fastest jets
- Design solar-powered medical equipment
- Invent a new generation of e-readers
- Power the quickest escalator using minimal electricity
- Design underwater recycling systems
- Make power tools operate more efficiently



Week 3

SCIENCE: SO MUCH MORE THAN DISSECTING A FROG!

- "Symphony of Noise" opening activity (page 36, adult guide) and "Weighing in on Noise and Silence" (page 27, adult guide)
- Intro to the wide variety of science fields using local experts (a panel discussion is a great format to use)—aim for at least four experts. Be sure to include two experts who can guide the girls to greater air awareness (these could include meteorologists, biologists, forestry experts, wind farm or aeronautical engineers, parasailing instructors, astronauts, physicians or other health specialists, fragrance specialists, and yoga instructors), as this will move the girls through a step toward their AWARE Award. Also include someone who works with sound in some way, as this will relate to the opening activity of the series.

Week 4

- "Harvesting Particulates: What's Really in the Air" (also see "What's in Your Air," page 68, girls' book)
- Girls' book content: "Come on in and Breathe Awhile" and "The Sound of Silence," pages 4–31; "What's in Air?" pages 36–37; science profile of Marie Antoine, environmental scientist and botanist, page 58

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Week 5

WHERE SCIENCE MEETS ART AND AIR CARE IN ACTION

- Intro to the wide array of creative fields that make use of science, technology, engineering, and landscaping (graphic arts, new media, culinary arts, music, film, theater) with panel of guest speakers representing various fields
- Discuss the art-related profiles from the girls' book (Maggie Jackson, writer, page 28; Liz Duffy Adams, playwright, page 46; Gabriela McCall-Delgado, photographer, page 56; Ellen Sandbeck, writer, page 73; Miwa Koizumi, artist, page 100)
- Girls move ahead with their ALERT projects (see the adult guide's "Guiding Questions," page 64; "Project Possibilities," pages 68–69; and "Coaching Tips," page 78)
- "Imagine . . ." a green roof (page 87, girls' book)
- "Break for Some Sweet Air," pages 88–89
- Girls' book content: "Greening with Greenery," pages 82–83; "Green Roofs Rock," page 86; "Wind Farm Haiku and You," page 99
- Got more time? Have fun fashioning kites from plastic bags for a group of Brownies.

Week 6

UP, UP, AND AWAY

"Celebrate with Purpose" (page 92, adult guide)

- "Your Now and Future Air" (page 94, adult guide)
- "Airy Thoughts from the Archives" (page 95, adult guide)