



Marie's Electric Adventure Outreach Guide

About the book

The Duke Energy chapter of NAYGN organized and wrote an elementary school-aged children's book to begin to dispel fears about nuclear energy. The characters in the book are named after important scientists in the history of nuclear: Marie Curie, Pierre Curie, and Albert Einstein. The story describes a stormy evening in the life of a little girl named Marie. After the power goes out in her home, she is upset her nightlight stops working. She leaves her stuffed penguin, Pierre, behind as she and her trusty pup Einstein go find out where power comes from.

On their journey, Einstein and Marie discover their friendly local nuclear power plant. Adam (the talking tree) helps to explain that there's nothing wrong with the power plant. A power line failure is the real culprit of the 'broken' nightlight. Adam also explains the basics of nuclear power production to Marie. With Marie's fears dissipated, she returns home to find the lights already back on. The book also contains a glossary of terms, a safety message, and a bit more detail on nuclear energy. There is also a link to NAYGN's public information library and a listing of the authors. –[NAYGN GoNuke article](#), Ashley Marlowe

About this guide

This guide is intended for NAYGN members to familiarize themselves with the book and the resources available to share the book with children in their communities. The target recipients for the free sample books are local schools, libraries, community centers, and the like. It is **not** for NAYGN members to keep for personal use. If you would like to purchase a hardcover book for yourself/family, please check on [Amazon.com](https://www.amazon.com) in October! An e-book will also be made available for use in classrooms.



OUTREACH

#ReadWithMarie

Classroom visits

NAYGN is encouraging all members to read the book to students during **Nuclear Science Week (October 16-20, 2017)**. Use the following tips to arrange classroom visits:

- Talk to a friend or family member who is a teacher or knows an educator
- Work with your company's communications team
- Find the district curriculum director on your school district's website

Social media

- Take photos of your outreach efforts and share them using the hashtag **#ReadWithMarie**
- Tag @NA_YGN on [Twitter](#), [Facebook](#) and [Instagram](#)
- Don't forget to share with your company as well

Photos

Please remember that taking up-close photos of children without parental consent could get you in trouble. Instead, try:

- Taking photos from a distance so faces aren't easily recognizable
- Sending release forms ahead of time to the teacher so the form can be sent home to parents
- Taking photos that only show faces of adults, who can sign a form on the spot
- Having someone else take the photo and post it on social media then share their tweet or post

Other outreach ideas

- Donate a book to a local library
- Work with a library to do a book reading
- Read the book at a children's camp or community center
- Invite a scout troop to a book reading
- Work with corporate communications to host a media event featuring the book



HANDS-ON ACTIVITIES

In addition to reading the book, try doing an activity to help bring the story to life. Choose one that fits the grade you're reading to and the amount of time you have. Consider leaving these activities with the teacher when you leave the classroom.

"Power Your Town!"

Students act as different parts of the electricity transmission process, all connected with string. One acts as the generator, two as transmission towers, four as substations, others as houses, school, hospital etc.

Target age: 1st or 2nd grade

Prep time: 10 minutes

Activity time: 20 minutes

Materials needed: Many 3ft. lengths of string; optional: hand crank generator (<https://goo.gl/tK5q3V>)

Takeaway: A generator produces power at a power plant. The generator at a typical nuclear plant makes enough electricity to power 720,000 homes. Power lines transport electricity to places from the power plant. Discuss electrical safety. For second graders: Nuclear plants produce electricity 24/7.

Questions to ask the students:

- Before the book reading: What are some things that use electricity? Where does electricity come from?
- After the book reading: What used electricity in the story? Where did it come from?
- After the activity: Where else is electricity used, besides your home? Which places need electricity during the day? At night?

"Nuclear Dance"

Students "dance" out different parts of the generation process from splitting atoms to using electricity .

Target age: 1st or 2nd grade

Prep time: 10 minutes

Activity time: 20 minutes

Instructions and suggested

materials: <https://goo.gl/U7PpYQ>

Takeaway: Splitting atoms create heat, which create steam, which turns a turbine, which turns a generator, and creates electricity which flows through power lines to power towns.

Use same questions from "Power Your Town!" For 2nd graders, talk about how nuclear is carbon free, while other energy sources (coal, gas) are not.

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Since Nuclear Science Week occurs in October, here are some additional Halloween-themed outreach activities, which are suitable for all-ages that will be reading the book.

"Trick or Treat?" sensory fun!

Create a spooky Halloween "feel-box" - cardboard boxes with hand holes that contain icky-feeling items like peeled grapes ("eyeballs"), cooked spaghetti noodles ("worms"), feed corn ("teeth"), etc.

Prep time: 30 minutes

Activity time: 30 minutes

Inspiration and suggested materials: <https://goo.gl/cTvqe1>

Takeaway: not everything that seems scary or is unknown is actually scary (i.e. the dark, nuclear power)

Questions to ask the children:

- **Before the book reading:** Have you ever been afraid? What were you afraid of? How many of you are afraid of the dark? How many of you know what a nuclear power plant is?
- **After the book reading:** What was Marie's problem she was facing (the dark, the nuclear plant/cooling tower)? What did Marie do to overcome her fear? What did you do to overcome your fear? What is this coming out of the nuclear power plant? (Point to picture of cooling tower steam in book.)
- **After the activity:** How many of you were scared of the creepy feeling items you touched? How many of you are still scared of them (after the reveal)?

"Is it Scary?" Cloud in a Jar demonstration and student artwork

Demonstrate how a cooling tower works by creating a "cloud" in a jar. After, have the children express their thoughts on fear through art. Brainstorm fears and how they have overcome them. Students will draw a picture of what they were afraid of on one side of the paper, and how they conquered the fear on the other side.

Prep time: 20 minutes

Activity time: 20 minutes

Cloud in a Jar instructions and suggested materials: <https://goo.gl/hQsd7n>

Other materials: paper and drawing utensils (school typically provides)

Takeaway: Steam ("clouds") is coming out of a cooling tower, not smoke. Fears can be overcome.

Use the same before and after the book reading questions as the "Trick or Treat?" activity.

"Energy Vampires"

Place glow in the dark stickers around the room on things that use electricity (computer, phone, television etc.). Turn the lights out and have them hunt for the items. Show kids pictures of the items if they get stuck.

Prep time: 10 minutes

Activity time: 20 minutes

Materials: Glow- in-the- dark stickers. Print out pictures or slideshow of common classroom items that use electricity.

Takeaway: Everyday activities depend on electricity! These items are "energy vampires" that suck energy to function. The items plugged into the wall also use electricity even when they are off!

Questions to ask the children:

- Use the same before and after the book reading questions as the "Power Your Town!" activity.
- After the activity: What uses electricity in this room? Where does it come from? (What plants are nearby). Brainstorm ways to stop the energy vampires (How can everyone cut back on energy usage).

Optional for both activities: Use spooky theatric effects!

- Wear cloaks and/or vampire teeth
- Carry goblets of dry ice or lanterns with electric candles
- At the end, take all of that off and show you are a non-scary nuclear professional!



ADDITIONAL RESOURCES

Suggestions for connecting with your audience

All ages: Character connection – Can the students relate themselves to the characters and story? Feeling afraid, confused, brave, relieved; exploring & problem solving, rules, being safe

First Grade: Focus on electricity – Where does it come from (a power plant, power lines)? How do you stay safe around it?

Second Grade: Talk about nuclear energy - How does nuclear energy turn a turbine at a power plant (nuclear dance)? What is carbon-free (pollution)?

Scouts: All of the above

Reading tips

- Look at the cover and brainstorm – “what do you think this story is about?”
- Flip through the pages and brainstorm to get the kids excited and hypothesizing.
- Go slowly and enunciate the words. Reading the book should take 10-15 minutes.
- Ask questions: Why is Marie scared? Have you ever felt scared? What makes you feel better?
- Voice fluctuation – BOOM!! Yelling “Mom!!”
- Exaggerate your facial expressions/body language to get the students involved and grab their attention
- Review at the end – “What happened?”

For more information

- Visit the [NAYGN website](#) for more information!
- If you have questions about the book, please email adventure@naygn.org
- Get a book [here!](#)