

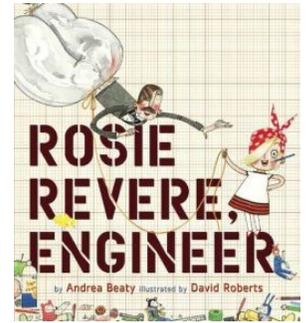
ROSIE REVERE, ENGINEER

written by Andrea Beaty

Rosie may seem quiet during the day, but at night she's a brilliant inventor of gizmos and gadgets who dreams of becoming a great engineer. When her great-great-aunt Rose (Rosie the Riveter) comes for a visit and mentions her one unfinished goal—to fly—Rosie sets to work building a contraption to make her aunt's dream come true. In the process, Rosie learns the only real failure for an inventor is giving up.

Rosie Revere loves nothing more than to create Rube Goldberg–worthy contraptions during the wee hours of the morning. Comically detailed mixed-media illustrations...keep the mood light and emphasize Rosie's creativity at every turn.

—Publisher's Weekly



Fun Across the Curriculum

LANGUAGE ARTS

Word Study: What's a *doohickey*? *Gizmo*? *Dynamo*?

Word Study: An **engineer** is someone who uses science and math to develop solutions to problems. Engineers don't just build *machines*. They also design *systems* to make things function better, as in a *traffic engineer*. *Architectural engineers* design *structures* such as bridges or buildings. *Agricultural engineers* design machines specifically for farming, as well as methods and systems to conserve natural resources and humanely manage livestock. What do you think a **mechanical engineer** does? What about an **electrical engineer**? **Software engineer**?

Word Play: Many types of work involve engineering. Here are some playful names for everyday work—guess the common name for each job: *breakfast engineer*; *clothing engineer*; *automotive engineer*. Make up your own engineer names for these occupations: *parents*, *students*, *teachers*, *doctors*.

Writers' Workshop: Rosie learns she can solve any problem she sets her mind to. What is a problem you would like to solve? What kinds of tools and machines would help you solve it? Write a story with diagrams about your ideas.

Compare & Contrast: The book *Iggy Peck, Architect* (also by Andrea Beaty and David Roberts) features an inventive young boy from Rosie's classroom. How are these stories and characters similar? How are they different?

SCIENCE

True or False? Rosie made her zookeeper uncle a hat with cheddar cheese spray to keep the pythons away. Do you think that is a **FACT**? Or is it a detail made up for entertainment? This

story is made up (fiction), but many of the things in it *could* happen in real life. What are some things in this book that probably would **NOT** happen in real life?

Python-be-gone! If cheese spray doesn't repel snakes, what are some other ways to discourage them from getting too close to humans? Are there any reasons you might want snakes nearby?

MATH & CREATIVE ARTS

The illustrations in *ROSIE REVERE, ENGINEER* use graph paper. You can use graph paper to accurately enlarge (or shrink) images. Find a photo or illustration that is 4 inches by 4 inches. Draw a grid of 16 one-inch squares on it with pencil. Next, draw a larger (or smaller) grid on a piece of plain paper. For example, double the size so your grid on the plain paper has 16 squares that are 2 inches by 2 inches (or .5 by .5). Look at your original image and draw what you see in each box on the plain paper grid. Try re-drawing the same picture without using a grid. Which method is easier for you?

Make a machine! Reuben Goldberg was an American cartoonist, engineer, and inventor. To entertain himself, he liked to create complicated machines to do simple tasks. Now we call these kinds of devices *Rube Goldberg machines*. Gather recycled supplies such as string, cardboard, plastic containers, springs, popsicle sticks, tubes, etc. and make your own Rube Goldberg machine. Ideas for simple tasks: *putting coins in a bank*; *turning a page*; *watering a plant*; *closing/opening a door*. Use a notebook to plan and document your results!



illustrated by David Roberts Abrams Books for Young Readers ISBN 978-1419708459
visit the author's website: www.andreabeaty.com

More Curriculum Fun

SOCIAL STUDIES

We can do it! Rosie the Riveter was a famous fictional character in American history. She was the poster girl representing the millions of women from Allied nations who went to work during World War II to produce equipment and food for the troops. Some worked in factories, others worked on farms, all jobs traditionally held by men.

Why did women start taking these jobs during the war?

Do you think people's attitudes about what women could accomplish changed as a result of their contributions to the war effort? In what ways? What do you think happened when they returned from war?



Trailblazers! Great-Great Aunt Rose kept notebooks, too. She had notes about important women in the history of flight:

- Elizabeth Thible
- Harriet Quimby
- E. Lillian Todd
- Bessie Coleman
- Amelia Earhart
- Lynn Rippelmeyer

What did each woman accomplish? What do you think these women were like as children? Make pages from notebooks they might have kept. Rosie struggled with self-confidence. What other struggles might these women have had? Use words and pictures to imagine what childhood was like for these pioneering women.

Core Curriculum Standards

Rosie Revere, Engineer is a great high interest, low reading level text to engage young readers from preschool through grade three and beyond. Below are just a few examples of ways that exploring and extending this book with activities can help teachers meet **Core Curriculum State Standards** (Math and English) and **Next Generation Science Standards**.

Mathematics

- Describe and compare measurable attributes. (KG)
- Represent and interpret data. (1st)
- Measure and represent lengths with standard units. (2nd)
- Solve problems involving measurement and estimation. (3rd)

English

- Recognize and produce rhyming words. (KG)
- Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. (1st)
- Describe how characters in a story respond to major events and challenges. (2nd)
- Compare and contrast the message, settings, and plots of stories written by the same author about the same or similar characters. (3rd)

Science

- Define a simple problem that can be solved through the development of a new or improved object or tool. (K-2)
- Develop a simple sketch, drawing, or model to illustrate how the shape of an object helps it function as needed to solve a given problem. (K-2)
- Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. (K-2)



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Math and English standards (CCSS) found at www.corestandards.org Science standards (NGSS) found at www.nextgenscience.org/

activities by Hope Vestergaard: www.hopevestergaard.com

visit the illustrator's website : davidrobertsillustration.com/home.html