



Rosie Revere, Engineer & Friends

2021-22
AUDIENCE
GUIDE

ABOUT THE PERFORMANCE

Ms. Greer's classroom includes three inquisitive out-of-the-box thinkers. Rosie Revere has big dreams. Iggy Peck has a relentless passion for architecture. And Ada Twist's curiosity can lead her to solve any problem. It's the first day of second grade, and Rosie, Ada, and Iggy are excited to meet their teacher. Ms. Greer is a little bit nervous about teaching second grade. In an attempt to get to know them better, Ms. Greer schedules a field trip. It happens to be on the day that Rosie's Great Great Aunt Rose returns to visit and she goes with them. Unfortunately the field trip doesn't go as planned and Rosie, Ada, and Iggy are faced with the ultimate test of their problem-solving skills that can only be conquered with teamwork. This energetic musical is based on the books *Rosie Revere, Engineer*; *Iggy Peck, Architect*; and *Ada Twist Scientist* by Andrea Beaty.

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ABOUT THE PRODUCTION

Rosie Revere, Engineer & Friends is currently touring to cities around the country. The play was written by Lauren Gunderson, who is one of the most produced playwrights in the country. She has written over 20 plays that have been produced at hundreds of theaters around the United States. The music and lyrics were written by Kait Kerrigan (lyrics) and Bree Lowdermilk (music). Together they have written many musicals, and have two albums. To see the many other people who worked to bring the play together check out Who Makes a Play? on page 3.

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WHAT TO KNOW



WHAT DOES A SCIENTIST DO?

A scientist is someone who is curious about the world and asks questions to help them figure it out. Anyone with these traits can call themselves a scientist (just like anyone who makes art can call themselves an artist). A person whose job it is to be a scientist is someone who has expert knowledge in life or physical sciences. Life sciences include biochemistry, microbiology, botany, zoology, and ecology. Physical sciences include physics, chemistry, astronomy, Earth science, geology, oceanography, meteorology, and Space science. Scientists gather information from observations and research, then they make a hypothesis (a guess) about what might happen next. They test to see if their guess is right and then share their learning with others.

WHAT DOES AN ENGINEER DO?

An engineer is someone who uses science and math to develop solutions to problems. They start by asking, What is the problem? Who has the problem? Why is it important to solve it? There are many kinds of engineers including aerospace engineers, architectural engineers, agricultural engineers, software engineers, mechanical engineers, and civil engineers (who build bridges).

HOW DOES A BRIDGE WORK?

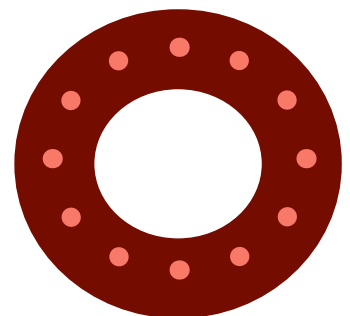
Bridges are ways for people to cross over bodies of water, canyons, railroads, or roads. If we didn't have bridges it would be much harder to get to places. The first bridge was likely a log or sturdy vine that went across a stream. The first person-made bridge is thought to be an arch bridge build in 2200 BCE in Babylon made of stone. Today, Engineers design and build bridges. A bridge can be just a few feet or many miles. A bridge needs to be very strong so that it can hold its own weight as well as the weight of people and vehicles that need to cross it. It also needs to be strong to stand up to natural occurrences such as strong winds, ocean currents, and earthquakes. Most bridges are made of concrete, steel, and wood framing. There are seven different kinds of bridges – girder bridges, truss bridges, arch bridges, cantilever bridges, suspension bridges, cable-stayed bridges, and movable bridges (like a drawbridge). Engineers design different types of bridges based where a bridge is needed. One of the most famous bridges in America, the Golden Gate Bridge in California, is a suspension bridge.

WHAT IS FAILURE?

In *Rosie Revere, Engineer & Friends*, Rosie's invention doesn't work right and she feels sad, frustrated and embarrassed that it failed. **Failure** is when something does not go as expected. We often think of failure as a bad thing but experts on human behavior, the brain, and education think that failure is an important part of being human. Failure is an inevitable part of learning! When you learned to walk you fell down a lot, but you got back up and tried again. You learned from your falls how to use your body to find your balance. That is the same way you can approach failure in different parts of your life – through hard work, feedback, and multiple attempts. One of the important things to remember is that you are not a bad person if you fail. Often you might not get it “right” but this is okay because you still learned something from the experience.

WHO IS ROSIE THE RIVETER?

In the play, Rosie's Great Great Aunt Rose is based on a figure from American history named Rosie the Riveter. The 'real' Rosie the Riveter was a famous fictional character in American history. During World War II, millions of American men were overseas fighting. So, many of the jobs that kept the country running were without workers. Women took the place of the men who usually worked these jobs. The American government created a poster to encourage women to get jobs in factories, farms, and mills. The strong woman on the poster was nicknamed Rosie the Riveter because one of these important war-time jobs was working the factories that produced equipment for the troops - things like tanks and artillery. These were factories in which women rarely, if ever, worked and the government needed to change that perspective. World War II was one of the first times in our history that women had access to jobs traditionally worked solely by men. Rosie really did rivet things but that was just one of her jobs! Unfortunately, when the war ended many of the women lost their jobs. However, the independence and agency that many of these women discovered helped fuel the revival of the feminist movement in the 1960s.



ACTIVITIES

WHO MAKES A PLAY?

There are many different types of artists and technicians who work together to create a play. Which one sounds interesting to you? Why?



ACTOR

The person who takes on the role of a character in the performance.

CHOREOGRAPHER

The person who creates the dance and movement for the performers.

SET DESIGNER

The person who creates what the stage will look like including what walls and furniture will be on stage.

COSTUME DESIGNER

The person who creates the clothes for the performance.

SOUND DESIGNER

The person who creates the sound and music that is played during the performance.

PLAYWRIGHT

The person who writes the script for the performance.

DIRECTOR

The person who tells the actors in the play or performance where to move and what emotion to show when they speak.

LIGHTING DESIGNER

The person who creates what kind of light will be onstage during the performance.

BOOK OR PLAY?

Visit your local library and borrow *Rosie Revere, Engineer* by Andrea Beaty. Read it to yourself, a friend, or have someone else read it to you. After you see the play, compare and contrast the book with the play. What was similar across the two? What was different between the two? How did the theater performance feel different from the story you read? Using specific examples, explain which version of the story you enjoyed more and why?

MAKE A PLAY

With your family, friends, stuffed animals, or figurines you can turn any story into a play. The difference between writing a story and performing it is that the story is all told through characters talking to each other and acting out the actions. Actors have a toolbox of skills that they use when performing to show different emotions – their faces, their bodies, their voices. You’ve got these tools too!

POSTER ART

The original Rosie the Riveter poster was meant to inspire women to go work in places where they previously weren’t allowed to. In the play, Rosie Revere struggles with confidence. What words of encouragement are helpful when you feel this way? Inspired by these words, draw, paint or collage your own poster with a motivational phrase that inspires you. Use colors and images that also make you feel inspired.

CLICK

to check out the original Rosie the Riveter poster.

ENGINEER A BRIDGE

Hopefully you don’t get stuck on an island and have to build a real bridge like Rosie, Ada and Iggy did. However, you can build a marshmallow and toothpick bridge and see how much weight it can hold.

CLICK

to check out the step by step guide.

TALK ABOUT IT

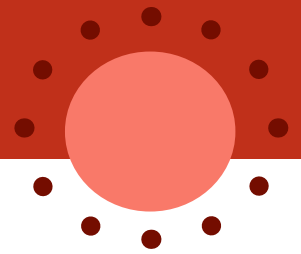
- What is the play about? Who are the main characters?
- What problems do the characters encounter? How do they create solutions to the obstacles they face?
- What is the relationship like between Rose and her Great Great Aunt? Among Rosie, Iggy, and Ada?
- What does Rosie learn about failure?
- What part of the play did you like best, and why? What character did you like best, and why?
- Did seeing the play make you want to learn more about engineering and using math and science to solve problems?
- Did seeing the play make you want to see more plays and performances in the future?
- What are the differences between attending a live performance and going to a movie or watching television? ?

YOU, THE AUDIENCE

An audience member is a part of a larger community - an audience - and we all work together to create our theater experience. The performers are very aware of the audience while they perform. Sharing their hard work and joy with you is one of the best parts of being a performer. Each performance calls for different audience responses. Lively bands, musicians and dancers may desire audience members to clap and move to the beat. Other performers require silent focus on the stage and talking from the audience can be distracting. The cast of *Rosie Revere, Engineer & Friends* highly encourage clapping, laughing and cheering at the parts of the play that you enjoy.



ADDITIONAL RESOURCES



READ MORE ABOUT ONE OF MAINE'S ROSIE THE RIVETERS!

<https://bangordailynews.com/2021/11/10/news/real-life-maine-rosie-the-riveter-96-looks-back-on-her-world-war-ii-effort/>

Engineering activities

Engineering For Kids: <https://www.engineeringforkids.com>

Science For Kids: <http://www.sciencekids.co.nz/sciencefacts/engineeringnz/typesofengineeringjobs>

Architecture activities

Archkitecture.com, encouraging visual literacy and explaining math, science, and visual concepts to kids through architecture: <http://archkitecture.org>

Kid World Citizen: <https://kidworldcitizen.org/world-architecture-for-kids/>

From Andrea Beaty

<https://www.andreabeaty.com/parents--teachers.html>

Kids, Parenting & Failure

Bologna, Caroline. "You Need to Teach Your Kids to Fail. Here's How." HuffPost, 21 Mar. 2019, https://www.huffpost.com/entry/teaching-kids-failure-resilience_l_5c882690e4b038892f485ba9

Grose, Jessica. "Teach Your Kids to Fail." The New York Times, 8 Jan. 2020, <https://www.nytimes.com/2020/01/08/parenting/teach-your-kids-to-fail.html>

ABOUT PORTLAND OVATIONS

Founded in 1931, Portland Ovarions produces dynamic performing arts events including classical music, jazz, opera, dance, theater, and Broadway. We believe that cultural enrichment should be high quality and accessible to all. Ovarions collaborates with other nonprofit organizations, education systems, and the business sector to promote lifelong learning while celebrating the power and virtuosity of the performing arts. We bring the exhilaration of the performing arts into our communities with free events as part of Ovarions Offstage, connecting artists and audiences. Join us at unexpected "art happenings," classroom workshops, masterclasses, community discussions, and pre-performance lectures to explore together the relevance and connection of the performing arts to our lives.