



Rosie Revere, Engineer & Friends

Rosie Revere, Engineer & Friends (L-R) Jenna Perez-Kalilah Black, Kyle Sherman-Daisy Carnelia, Kiani Nelson. Photo By Jeremy Daniel Photography

School Matinee Performances

Presented by
 **University Hospitals**
 Rainbow Babies & Children's



TEACHER RESOURCE GUIDE

Rosie Revere, Engineer & Friends

TABLE OF CONTENTS

About Playhouse Square	3
Coming to the Theater	4
About the Show	6
Key Terms & Events	8
Pre-Show Activities	11
Post-Show Activities	18
Resources	22
Curriculum Standards Index	23
English/Language Arts	23
Fine Arts	25
Mathematics	27
Science	28
Social & Emotional Learning	28
Social Studies	28
Technology	29



EDUCATION



The lessons and activities in this guide are driven by the Ohio Learning Standards in English Language Arts (2017), Fine Arts (2012), Mathematics (2017), Science (2019), Social & Emotional Learning (2019), Social Studies (revised 2019) and Technology (2019).

21st century skills of creativity, critical thinking and collaboration are embedded in the process of bringing the page to the stage. Seeing live theater encourages students to read, develop critical thinking skills and to be curious about the world around them.

This Teacher Resource Guide includes background information, questions and activities that can stand alone or work as building blocks toward the creation of a complete unit of classroom work.

The lessons and activities in this guide are created and adapted by Jeanine Tesch in partnership with Playhouse Square's Education Department.



The Ohio Arts Council helps fund this organization with state tax dollars to encourage economic growth, educational excellence and cultural enrichment for all Ohioans.

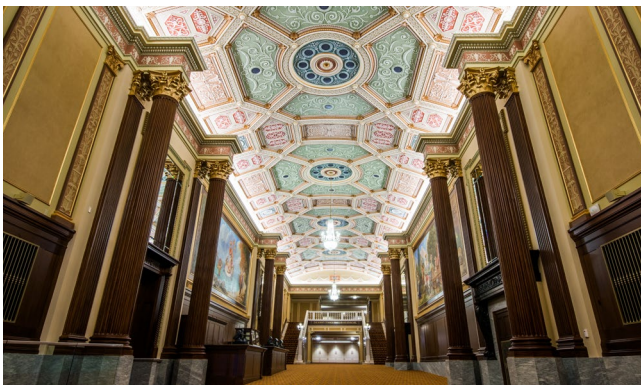
Playhouse Square is supported in part by the residents of Cuyahoga County through a public grant from Cuyahoga Arts & Culture.

ABOUT PLAYHOUSE SQUARE

Playhouse Square is an exciting field trip destination! The not-for-profit Playhouse Square attracts more than one million guests to 1000+ shows and events each year. Five of Playhouse Square's 12 venues are historic theaters that first opened in the early 1920s. By the late 1960s, they had been abandoned. A group of volunteers saved the theaters from being turned into parking lots. Now, all five historic theaters are fully restored.

You'll find Broadway, concerts, comedy, dance and family shows on Playhouse Square's stages, along with performances and events held by Playhouse Square's eight resident companies: The City Club of Cleveland, Cleveland Ballet, Cleveland International Film Festival, Cleveland Play House, Cleveland State University's Department of Theatre and Dance, DANCECleveland, Great Lakes Theater and Tri-C JazzFest.

When you visit, be sure to check out the retro Playhouse Square sign with its 9-foot-tall letters and the largest outdoor chandelier in North America – the Playhouse Square Chandelier generously presented by GE Lighting, a Savant company.



COMING TO THE THEATER

This discussion and attendance at one of our in-person School Matinee Performances address the following Fine Arts Ohio Learning Standards for Drama: K.1CE, K.5CE, K.6CE, 1.4CE, 1.5CE, 1.6CE, 2.5CE, 2.6CE, 2.3RE, 4.4CE, 4.6CE, 4.3RE

We look forward to welcoming you and your students to Playhouse Square! To prepare for a successful field trip, we encourage you to spend some time discussing the differences between coming to the theater and watching a television show or movie or attending a sporting event, especially if you have students who have not yet had the opportunity to attend a live theater performance. Cleveland has a vast arts district with many theatres at the professional and community level. Have any students attended a theatrical performance at Playhouse Square before? How about anywhere else in the community? At school?

Here are a few points to begin the discussion:

- You and your students will be greeted and helped to your seats by members of Playhouse Square's staff and "RedCoat" volunteers.
- The Mimi Ohio Theatre is a proscenium theater, featuring a large archway and raised stage. Learn about other features you'll see on the next page. Can you point them out when you get to the show?
- Theaters are built to magnify sound. Even the slightest whisper can be heard throughout the theater. Remember that not only can those around you hear you, but the performers can also too.
- As you watch the performance, feel free to respond by laughing or applauding. Theatre is meant to excite, entice, and motivate its audience. It helps us to see a different perspective from our own.
- Food, drink and gum are not permitted in the theater for school matinee performances.
- Photography and recording of performances are not permitted.
- Mobile phones and other electronic or noise-making devices should be silenced and put away before the performance begins.
- When the houselights dim, the performance is about to begin. Please turn your attention toward the stage.
- After the performance, a member of the Playhouse Square staff will come out on stage to dismiss each school by group number. Check around your seat to make sure you have all your personal belongings before leaving.

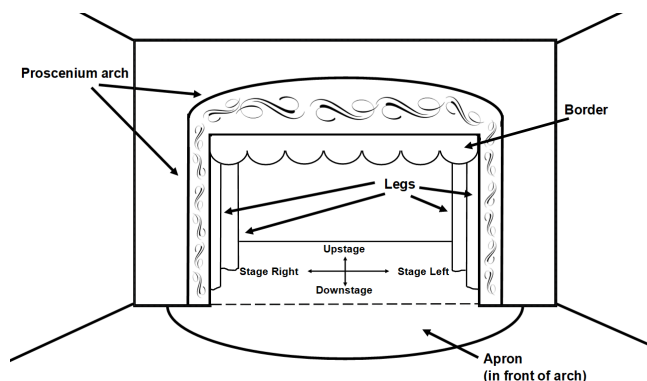


Parts of a Theater

Theater is both a place *and* a thing. It's the art of creating and producing plays, the act of performing plays, and it's a place where plays are performed. Theater can take place anywhere – at school, a big fancy building or even outside. The Mimi Ohio Theatre, our main stage for school matinee performances, is over 100 years old and seats over 1,000 guests.

There are many types of theaters, including thrust stages, amphitheaters, black boxes and proscenium theaters. The Mimi Ohio Theatre is an example of a proscenium theater, or a theater that features a proscenium, or “picture frame” arch. The diagram below shows an example of this and other elements that are visible during a theater performance. Review the glossary below prior to the show and ask students how many terms they can recognize and point out during their visit. These terms may reappear in other pre- and post-show activities provided in this guide.

An exact paper model of the Mimi Ohio Theatre is linked on our Resources page and can be printed out. Work individually or as a class to assemble your own replica, learn hands-on about the parts of the theater, and stage your very own productions!



Glossary

Apron – the section of the stage floor which projects towards or into the auditorium. In proscenium theatres, it's the part of the stage in front of the proscenium arch, above the orchestra pit.

Blackout – an absence of stage lighting, often cued to distinguish the start or end of a show or scene

Borders and Legs – curtains or panels framing the stage. Legs are flown vertically to hide the wings or offstage areas. Borders are flown across the top of the stage.

Cast – a group of actors in a play

Character – a person in a novel, play or movie portrayed by an actor

Choreography – rehearsed movement or dance

Chorus – a group of singers and dancers in a play or musical

Costumes – the clothing worn by the actors onstage

Cyclorama – a curved, plain cloth filling the rear of the stage, often used as a sky backing or to project lighted backgrounds

Main Rag, or Main Curtain – large, heavy curtain (often red) that separates the stage from the audience

Props – objects used by characters on stage, usually small enough to be carried easily

Proscenium – an arch framing the opening between the stage and the auditorium in some theaters

Scene – a division of an act or play. Often, scenes change when characters or set pieces change to indicate a new place or time.

Set – the environment of the play; scenery and furniture used on the stage

Stage directions – movements or placements of actors on stage

- **Onstage** means standing where an audience is able to see you. **Offstage** usually means outside of view but still on the actual stage.
- If you are standing in the center of the stage, you are **center stage**. If you are standing center stage, you are facing **downstage** and the area behind you is **upstage**.
- If you are standing center stage, facing the audience, **stage right** is to your right and **stage left** is to your left.

ABOUT THE SHOW

Book by Lauren Gunderson
Music by Bree Lowdermilk
Lyrics by Kait Kerrigan

This new musical adaptation is based on the beloved and bestselling *Rosie Revere* books by Andrea Beaty and David Roberts. 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 drive her teacher crazy. But all three are needed to save the day when their fieldtrip goes awry! By using their engineering know-how and problem-solving skills, they can get everyone home safe and sound.

ABOUT THE AUTHOR



Andrea Beaty is an American author and illustrator known for her children's books. Born on September 8, 1963, in Southern Illinois, she has a background in computer science and engineering. After working in the technology field, she shifted her focus to writing children's literature.

One of her most well-known works is the "Questioners" series, which includes books like *Rosie Revere, Engineer*, *Iggy Peck, Architect* and *Ada Twist, Scientist*. These books celebrate creativity, curiosity and perseverance, encouraging young readers to explore careers in science, technology, engineering or mathematics. Andrea Beaty's writing often combines humor and educational themes, making her books engaging for children and appealing to parents and educators. Apart from the "Questioners" series, she has authored and illustrated several other picture books.

ABOUT THEATERWORKSUSA

TheaterWorksUSA's mission is to create exceptional, transformative theatrical experiences that are accessible to young and family audiences in diverse communities throughout New York City and North America. TWUSA believes that access to art – and theater in particular – is vital for youth programming to address the disproportionate accessibility of art for young people across the country. Now more than ever, TheaterWorks not only entertains but creates experiences that bring audiences together by encouraging compassion, inclusivity and anti-racism, and inspiring young people by giving them a reason to look up with optimism and hope. For nearly six decades they have been a trailblazer in the not-for-profit theater industry with a repertoire of over 140 literature and history-based plays and musicals.

Having served over 100 million children, educators and families, TWUSA continues to play a leading role in the rise of theater for young audiences as an art form.

Learn more at twusa.org.



MEET THE CHARACTERS

Rosie Revere

Ambitious but also shy. A sweet kid who is used to blending into the background (where she can secretly build machines) as she presumes that no one will understand her ideas. She is recently energized by her Great Great Aunt Rose and is now testing out her own confidence. She is an engineer.



Iggy Peck

A sophisticated young man in the body of a second grader. An independent dreamer that can realize his ideas. Straightforward. Calm. Confident. He is an architect.



Ada Twist

Full of nonstop hyper energy and has a constantly shifting focus. Happy, excited and full of ideas and questions. Talks too fast and does not always listen to the answers to questions she peppers at people. She is a scientist.



Miss Lila Greer

Teacher, worrier, prim, proper and always a little nervous.



Great Great Aunt Rose

Adventurous and fun, always cheering her niece Rosie on.

KEY TERMS & EVENTS

Architect – a person who plans and designs buildings and how they will be built

Creative – a person who uses imagination to make new things

Elevate – to lift something up or make it higher

Engineer – a person who uses science and math to design and create things, such as machines, buildings or bridges

Expedition – a journey or an adventure

Experiment – a test or a trial to learn something unknown

Failure – when something does not succeed or work as planned

Idea – a thought or a concept that comes to mind

Invent – to create or design something entirely new that has never been made

Kinetic – caused by motion

Out of sync – not happening together or in a coordinated way

Physics – the branch of science that deals with the study of matter, energy and force

Propel – to push or drive something forward

Ravine – a deep, narrow valley with steep sides, usually formed by water erosion

Scientist – a person who studies and explores the natural world, conducting experiments and making observations to learn more about it

Velocity – the speed and direction of an object's motion



Rosie Revere, Engineer & Friends (L-R) Kailash Black, Kyle Sherman, Daisy Carmelia, Jenna Perez. Photo By Jeremy Daniel Photography

Who is 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. All the jobs that kept the country running were typically done by men so without them, the workforce was lacking. Rationing, or the controlled distribution of scarce resources, was important during wartime because Americans did not have access to certain goods. To aid in this, the Rosie the Riveter campaign was created by the American government to celebrate women who took manufacturing positions that were once reserved for men. The government created a poster to encourage women to get jobs in factories, farms and mills. The strong woman highlighted on the poster was named Rosie the Riveter. Women who made equipment for the troops like tanks and artillery were also nicknamed a Rosie. World War II was one of the first times in history that women had access to jobs traditionally worked by men. Rosie the Riveter represented all the women who were trailblazers during that time.



What is STEAM?

STEAM is an acronym representing the following areas:

Science – the systematic study of the structure and behavior of the physical and natural world through observation and experiment

Technology – the application of scientific knowledge for practical purposes, especially in industry and commerce

Engineering – the application of scientific and mathematical principles to design and build systems, structures, devices and processes

Arts – creative expression and representation of ideas through various forms such as visual arts, music, literature and performing arts

Mathematics – the study of numbers, quantities, shapes, patterns and structures, and their relationships

The inclusion of “Arts” in the STEM acronym to form STEAM reflects a recognition of the importance of creativity and artistic expression in the learning process. Arts education fosters creativity and innovation. The arts encourage students to think outside the box, explore new ideas and approach problem-solving in unconventional ways. The ability to be innovative is valuable in science, technology, engineering and mathematics.

Women currently represent only about a quarter of the workforce in STEAM-related careers, highlighting a significant gender gap. Addressing this disparity requires proactive measures, including fostering a love of science and math from an early age and challenging wage inequalities within these fields to create a more inclusive and equitable environment for women in STEAM professions.

Who are notable women in STEAM?



Shafi Goldwasser (Mathematics/Computer Science)

An award-winning computer scientist and mathematician, Shafi Goldwasser has made significant contributions to the fields of cryptography and computational complexity.



Hedy Lamarr (Technology)

In addition to being a Hollywood actress, Hedy Lamarr co-invented an early version of frequency-hopping spread spectrum communication, a technology that laid the groundwork for modern wireless communication.



Temple Grandin (Engineering)

A professor of animal science and a pioneer in the field of animal behavior, Temple Grandin has revolutionized the livestock industry with her humane and effective designs for livestock handling systems.



Maya Lin (Arts/Architecture)

An architect and artist, Maya Lin gained fame for her design of the Vietnam Veterans Memorial in Washington, D.C. and has continued to create impactful works at the intersection of art and architecture.



Margaret Hamilton (Technology)

As the Director of the Software Engineering Division of MIT Instrumentation Laboratory, Margaret Hamilton played a crucial role in the development of the software for NASA's Apollo missions.



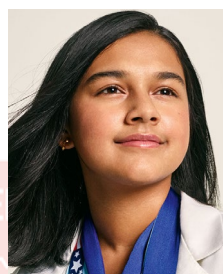
Ada Lovelace (Technology)

Often regarded as the world's first computer programmer, Ada Lovelace wrote the first algorithm designed for implementation on Charles Babbage's Analytical Engine.



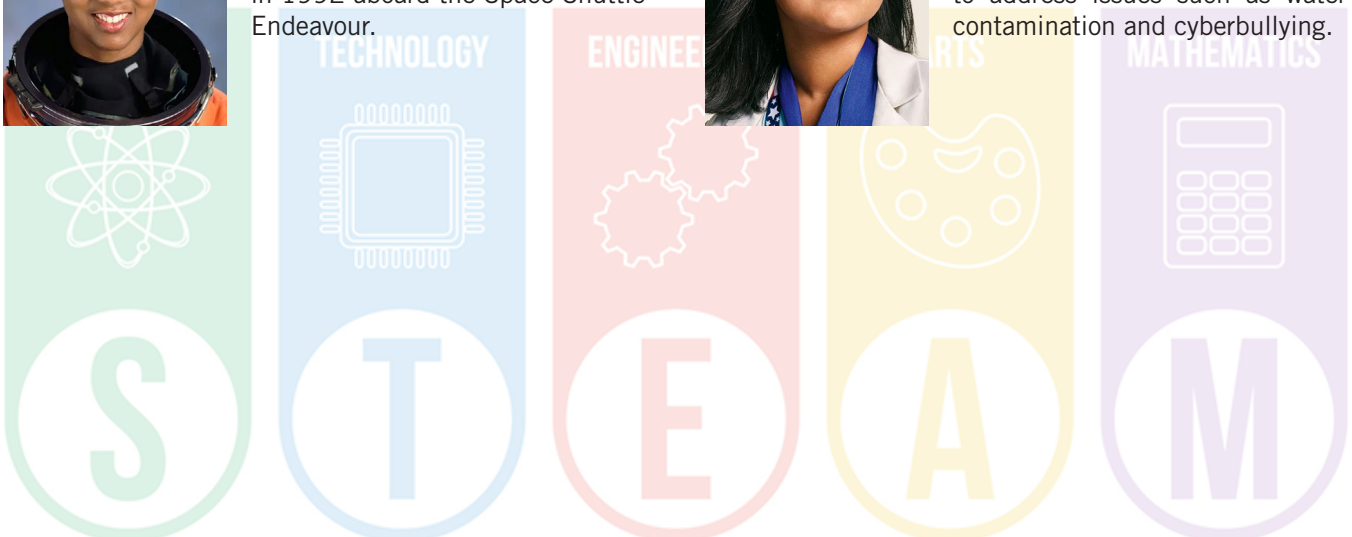
Mae Jemison (Science)

An astronaut and physician, Mae Jemison became the first African American woman to travel in space in 1992 aboard the Space Shuttle Endeavour.



Gitanjali Rao (Science/Technology)

A young inventor and TIME's Kid of the Year in 2020, Gitanjali Rao has developed innovative solutions to address issues such as water contamination and cyberbullying.



■ PRE-SHOW ACTIVITIES

Classroom Connections Pre-Show Workshop (Grades: K-4)

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

English/Language Arts: SL.K.1, SL.1.1, SL.2.1, SL.3.1, SL.4.1

Fine Arts: Drama: K.5PR, 2.4PR, 3.7PR

Mathematics: K.CC.1, 1.OA.1, 1.OA.3

Science: 1.PS.2, 2.PS.1, 4.PS.2



Join AJ and Molly as they invite students to warm-up their bodies, play with numbers, explore what it means to be an engineer and take a trip to The Children's Museum of Cleveland!

Running time: 15:02

Guest stars:

Ms. Kasey, The Children's Museum of Cleveland

Mr. Charlie, The Children's Museum of Cleveland

Who was Rube Goldberg?

Born in 1883, Rube Goldberg was an American author, cartoonist, engineer, inventor and sculptor. Many of his popular cartoons featured elaborate set-ups of gadgets of all kinds which when linked together solved simple tasks. His creations were so popular that they inspired a movement of artists and inventors to continue creating outrageous collections of seemingly random objects for competitions and displays. Today, there is a Rube Goldberg Institute and a Rube Goldberg Machine Contest amongst many.

Additional Terms

Catapult – a simple device that can throw an object, like the cotton ball catapult that Mr. Charlie built in the video

Kinetic Energy – the energy an object has because of its movement, such as the energy created when Ms. Kasey dropped the ball into the tube and it rolled to the next level in the video

Traverse – to move along or pass through something, like when Ms. Kasey dropped the ball into one slot and the ball continued to roll through one tube to the next in the video

Vocabulary Worksheets (Grades: K-4)

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

English/Language Arts: L K.4, L.1.4, L.2.4, L.3.4, L.4.4

Name: _____

Directions: Review the vocabulary words listed in the Key Terms & Events section. Individually or in groups, have students complete the vocabulary matching below.

- | | |
|----------------------|--|
| 1. _____ Experiment | a. journey or an adventure |
| 2. _____ Ravine | b. test or trial to learn something unknown |
| 3. _____ Expedition | c. deep, narrow valley with steep sides |
| 4. _____ Out of sync | d. branch of science dealing with matter, energy and force |
| 5. _____ Idea | e. speed and direction of an object's motion |
| 6. _____ Velocity | f. not happening together or in a coordinated way |
| 7. _____ Creative | g. thought or a concept that comes to mind |
| 8. _____ Elevate | h. person who studies and explores the natural world |
| 9. _____ Engineer | i. person who uses imagination to make new things |
| 10. _____ Scientist | j. create or design something entirely new |
| 11. _____ Physics | k. to push or drive something forward |
| 12. _____ Invent | l. person who uses science & math to design and create |
| 13. _____ Propel | m. when something does not succeed or work as planned |
| 14. _____ Failure | n. person who plans and designs buildings |
| 15. _____ Architect | o. to lift something up or make it higher |

Name: _____

Directions: Review the vocabulary words listed in the Key Terms & Events section. Students should individually complete the word search below to find the terms.

C	H	N	I	I	V	E	L	O	C	I	T	Y	R	L	F	Q	M
O	U	T	O	F	S	Y	N	C	O	H	Y	N	C	T	I	F	M
I	R	S	C	I	E	N	T	I	S	T	K	B	W	J	L	I	Y
L	Z	I	S	K	Q	D	Z	J	K	P	W	A	U	L	X	D	E
I	E	N	Y	C	C	R	D	U	C	R	E	A	T	I	V	E	L
F	L	V	Y	Q	F	C	E	Y	F	A	I	L	U	R	E	A	E
N	B	E	P	R	O	P	E	L	E	N	G	I	N	E	E	R	V
U	G	N	K	E	X	P	E	D	I	T	I	O	N	E	G	G	A
Z	M	T	Z	W	L	A	R	C	H	I	T	E	C	T	Z	Q	T
Y	H	P	H	Y	S	I	C	S	J	Y	A	F	T	N	C	Q	E
E	X	P	E	R	I	M	E	N	T	B	C	Q	I	W	N	Q	A
B	X	S	M	R	A	V	I	N	E	Y	S	G	I	L	J	C	L

ARCHITECT
CREATIVE
ELEVATE
ENGINEER
EXPEDITION

EXPERIMENT
FAILURE
IDEA
INVENT
OUT OF SYNC

PHYSICS
PROPEL
RAVINE
SCIENTIST
VELOCITY

Full STEAM Ahead (Grades: K-4)

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

English/Language Arts: RI.K.10, RL.K.10, W.K.2, RL.1.3, RL.2.10, W.2.2, RL.3.10, W.3.2, RL.4.10, W.4.2

Social Studies: 2.Eco.15, 2.Eco.17

Technology: K-2.ICT.3.a, 3-5.ICT.2.b

This activity also aligns with Ohio's Career Connections Framework for Career Awareness in Elementary Grades (K-5).

Read or listen to the three stories that the play is based on: *Rosie Revere Engineer*, *Ida Peck Architect* and *Ida Twist Scientist*. Then, review the What is STEAM? section on page 9.

Facilitate a lesson on STEAM careers with the students. With the class, generate a list of the STEAM concepts/careers presented in the books: an engineer, an architect and a scientist. From there, get more specific and continue a brainstorm session with the students until the class comes up with a list of about a dozen STEAM careers.

Next, break the class into groups and assign each group a STEAM profession from the brainstormed list. Together as a class or individually, students should use at least two online digital learning tools or websites (see suggested resources on page 22) to conduct their research.

Instruct the students to answer the following career research questions:

- What type of training does this job require?
- What are the everyday duties of this job?
- What skills might be helpful to have in this career area?
- How much money does this profession typically make?
- Does this job create goods, provide services or do both? List the goods or services.

To assess learning, a worksheet is available on the next page for students to complete. Students may also summarize their findings on chart paper or a dry erase board and present them in front of the entire class.

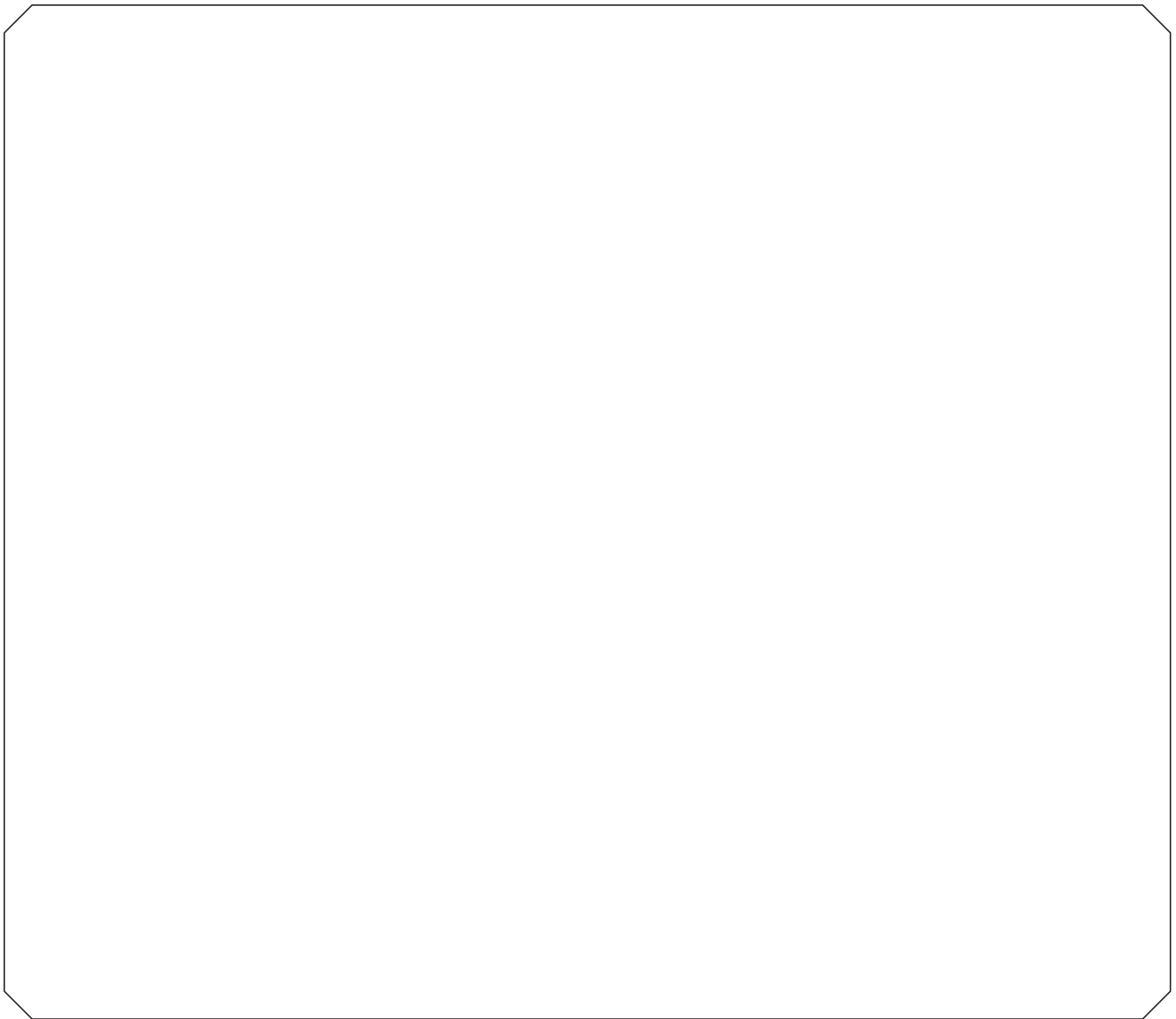




Full STEAM Ahead Worksheet

Name: _____

Directions: After listening to the different areas of STEAM, think about which field you might like to work in when you are older. Write 2-3 sentences about the area you found most interesting and why. In the box, draw your future self as a scientist, architect, engineer or another STEAM related career. Have fun and be creative!



Building on Shapes (Grades: K-4)

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

Fine Arts: Visual Arts: K.2PR, K.3PR, 1.3PE, 1.3PR, 2.3PR, 2.4PR, 3.3PE, 3.4PR, 4.3PR, 4.5PR

Mathematics: K.G.4, K.G.5, K.G.6, 1.G.1, 1.G.2, 1.G.3, 2.G.3, 3.G.2

During the play, the students will meet three children who are very inquisitive. They are always asking questions, designing new projects and exploring. Likewise, students will use creativity in this activity to draw and build with basic shapes.

For Grades K-1

Using the stencil on the next page students will learn the definitions of a variety of shapes, cut out the shapes with scissors and trace the shapes onto a large piece of drawing paper to design a building of their choice. With the students, read the shape definitions out loud. Give students directions for cutting out the stencils. Show the students how to trace the stencils and draw their buildings, reminding them that the buildings are to be drawn only from the shapes. Students can fold their stencils to use a half or a quarter of a shape, if needed, for their drawing.

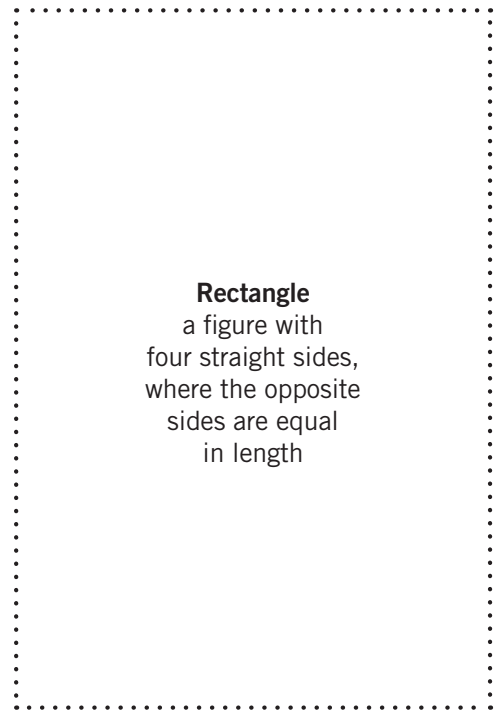
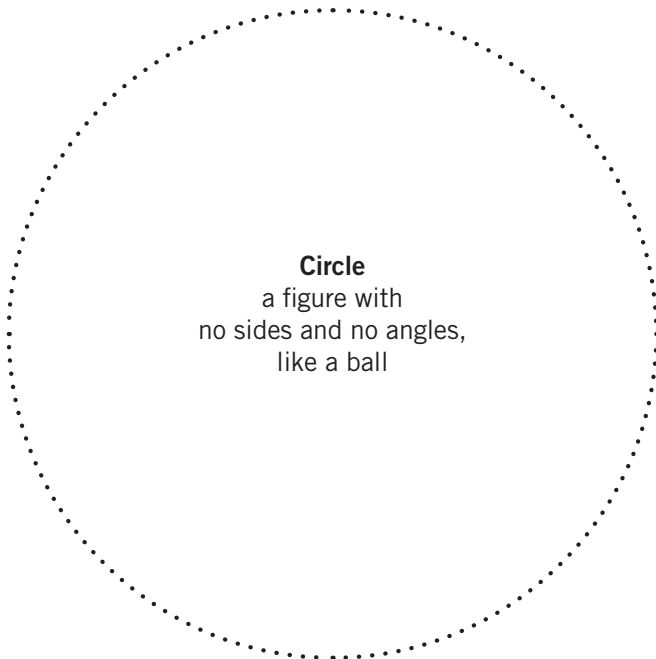
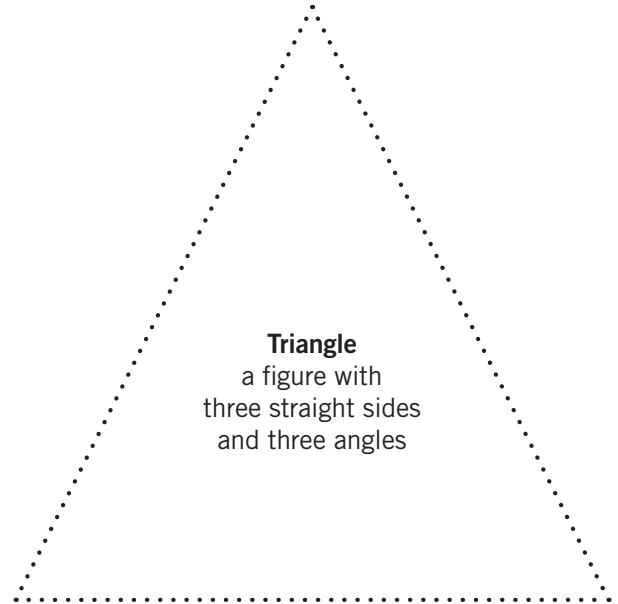
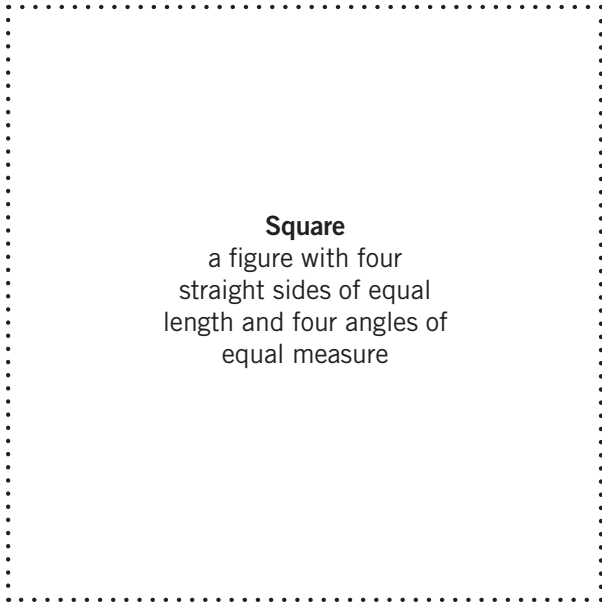
Make sure the stencil-drawn buildings include all the basic structural components such as a foundation, walls and a roof. While the students are drawing, ask them to describe similarities and differences for each shape. Challenge them to draw shapes in different sizes or orientations when creating their masterpieces.

For Grades 2-4

To challenge students to be innovative, cut out a variety of construction paper shapes and place them in a large bowl. Make sure to cut out enough shapes in various sizes so that each student receives five to ten pieces. Have students randomly pick out construction paper shapes from the bowl. Then, have students construct a building out of the selected shapes. The paper shapes can be glued or taped together. Remind students that shapes can be cut in halves, thirds or quarters, if needed. After the entire class is finished, a whole city can be made from the student crafted buildings.

An extension of this activity could be to have the students research a famous building and recreate it using only shapes, either drawn or constructed. Remind them to think like an engineer and ask questions like a scientist.

Shapes Stencil



■ POST-SHOW ACTIVITIES

Traits and Emotions (Grades: K-4)

The Ohio Learning Standards listed below are addressed in the following Post-Show Activity:

English/Language Arts: RL.K.3, RL.1.3, RL.1.4, RL.2.3, RL.3.3, RL.4.3

Social & Emotional Learning: B1.1.a, B1.3.a, B1.1.b, B1.2.b

Rosie and her friends have big emotions and very special traits making them unique. In this discussion and activity, students will learn about the following terms:

TRAIT

the tried-and-true way a character in the story acts from within

EMOTION

the temporary feeling of the character at certain times in the story

Explain the meanings of the above terms to the students, asking them to repeat the terms out loud. Host a discussion of the differences between these two terms. Have students raise their hands and give examples of traits and emotions.

Next, have each student pick a character from the play. Using the worksheet on the next page, students will make a list or draw a picture to identify this character's traits and emotions. Then, the students will repeat this for their own traits and emotions. Encourage them to explore their traits and emotions at home versus at school.



Traits and Emotions Worksheet

Name: _____

Directions: Pick a character from the *Rosie Revere, Engineer & Friends* play. List the traits and emotions of this character. Then, list the traits and emotions you have.

Character from play: _____

Traits	Emotions
My Traits	My Emotions

Real Life Rosie (Grades: K-4)

The Ohio Learning Standards listed below are addressed in the following Post-Show Activity:

Fine Arts: Visual Arts: K.1PE, K.3PE, 1.3PE, 1.3PR, 2.3PR, 2.4PR, 3.5PR, 3.6PR, 4.4PR, 4.5PR

Social Studies: K.Gov.9, 1.Gov.8, 1.Hist.2, 2.Hist.2, 2.Hist.3, 3.Eco.16, 3.Gov.10, 3.Hist.2 4.Hist.2

Rosie's Great Great Aunt Rose is based on a figure from American history named Rosie the Riveter who inspired women to take action and help their communities. After reading the history of Rosie the Riveter on page 9, show the class the poster of the original Rosie the Riveter (linked in the Resources). Open a class-wide discussion about who Rosie the Riveter was and what she represented.

Then, have the students learn about a few notable women who are trailblazers in STEAM careers by reading the information on page 10. The students should think about how Rosie the Riveter would change if representing the women of today.

With this information in mind, students are to imagine a modern-day version of Rosie the Riveter who will help inspire others to get involved in their communities. Students should depict their modern-day Rosie in a drawing or a painting. To adapt for younger students, use the coloring sheet on the next page to give a starting point for the drawing.

While the students create, prompt them with questions such as:

- What does this person do for a living?
- How might this person dress?
- What items might this person carry?
- What are some traits of this person?

If permitted, pictures of the students' completed modern-day Rosie the Riveter creations can be shared with us by sending them via email to schoolprograms@playhousesquare.org or to:

Playhouse Square
Attn: School Field Trips
1501 Euclid Ave. Ste. 200
Cleveland, Ohio 44115



We can do it!



RESOURCES

BOOKS

Ada Twist, Scientist, by Andrea Beaty

Iggy Peck, Architect, by Andrea Beaty

Rosie Revere, Engineer, by Andrea Beaty



Suggestions for Further Reading

Beautiful Oops!, by Barney Saltzberg

Not a Box, by Antoinette Portis

Sofia Valdez, Future Prez, by Andrea Beaty

The Dot, by Peter H. Reynolds

The Most Magnificent Thing, by Ashley Spires

WEB



“Ada Twist, Scientist by Andrea Beaty Read Aloud,”
Learn Conmigo 123 YouTube, [youtube.com/watch?v=wbNwnRLbmC0](https://www.youtube.com/watch?v=wbNwnRLbmC0)

“Color My Career Coloring Worksheets,” *Ohio Means Jobs*, June 6, 2023. education.ohio.gov/getattachment/Topics/Career-Tech/Career-Connections/In-Demand-Jobs-Week-Toolkit/Elementary-K-5-Activities/Coloring-Book.pdf.aspx?lang=en-US

“Iggy Peck Architect by Andrea Beaty Read Aloud,”
Storytime with Ryan & Craig YouTube, youtu.be/qsDG0s_1TX8?si=whTy0h5x7jTyvAxB

“Rosie Revere, Engineer read by Lea Michele,” *StorylineOnline* YouTube, youtu.be/7LOuUq4FT6g?si=12V2nypxSuM3S3KC

“Full STEAM Ahead” Activity

A to Z Career Lab, *Ohio Broadcast Educational Media Commission*, atoz.thinktv.org

Suggested pages: Aerospace Engineer, Botanist, Computer Programmer, Fashion Designer, Research Analyst

Safe Visual Search Engine for Kids, *Kiddle*, kiddle.co

“Real Life Rosie” Activity

We Can Do It! Poster, *National Museum of American History*, americanhistory.si.edu/collections/nmah_538122

Classroom Connections Workshop Video

Rosie Revere, Engineer & Friends Pre-Show Workshop Video. Password: STEAM0308 <https://vimeo.com/905719881>

Visiting Playhouse Square Social Stories

For Schools and Groups. <https://vimeo.com/228684472>

For Families and Homeschools. <https://vimeo.com/228683843>

Ohio Theatre Letterbox Activity

<https://www.playhousesquare.org/assets/doc/Printable-Ohio-model-4dad95fd76.pdf>

CURRICULUM STANDARDS INDEX

English/Language Arts

Standard	Description	Grade	Activity	Page
L.K.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck). Use the most frequently occurring inflections and affixes (e.g., -ed, -s, re-, un-, pre-, -ful, -less) as a clue to the meaning of an unknown word.	K	Vocabulary Worksheets	12
RI.K.10	Actively engage in group reading activities with purpose and understanding.	K	Full STEAM Ahead	14
RL.K.3	With prompting and support, identify characters, settings, and major events in a story.	K	Traits and Emotions	18
RL.K.10	Ask and answer questions about unknown words in a text.	K	Full STEAM Ahead	14
SL.K.1	Participate in collaborative conversations about kindergarten topics and texts with diverse partners in small and larger groups.	K	Pre-Show Video Workshop	11
W.K.2	Use a combination of drawing, dictating, and writing to compose informative/explanatory texts that name what is being written about and supply some information about the topic.	K	Full STEAM Ahead	14
L.1.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies.	1	Vocabulary Worksheets	12
RL.1.3	Describe characters, settings, and major events in a story, using key details.	1	Full STEAM Ahead Traits and Emotions	14 18
RL.1.4	Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.	1	Traits and Emotions	18
SL.1.1	Participate in collaborative conversations about grade 1 topics and texts with diverse partners in small and larger groups.	1	Pre-Show Video Workshop	11
L.2.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.	2	Vocabulary Worksheets	12
RL.2.3	Describe how characters in a story respond to major events and challenges.	2	Traits and Emotions	18

RL.2.10	By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range. Activate prior knowledge and draw on previous experiences in order to make text-to-self or text-to-text connections and comparisons.	2	Full STEAM Ahead	14
SL.2.1	Participate in collaborative conversations about grade 2 topics and texts with diverse partners in small and larger groups.	2	Pre-Show Video Workshop	11
W.2.2	Write informative/explanatory texts that introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.	2	Full STEAM Ahead	14
L.3.4	Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.	3	Vocabulary Worksheets	12
RL.3.10	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently. Activate prior knowledge and draw on previous experiences in order to make text-to self or text-to-text connections and comparisons.	3	Full STEAM Ahead	14
RL3.3	Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.	3	Traits and Emotions	18
SL.3.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.	3	Pre-Show Video Workshop	11
W.3.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	3	Full STEAM Ahead	14
L.4.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.	4	Vocabulary Worksheets	12
RL.4.3	Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).	4	Traits and Emotions	18
RL.4.10	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range. Activate prior knowledge and draw on previous experiences in order to make text-to-self or text-to-text connections and comparisons.	4	Full STEAM Ahead	14

SL.4.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.	4	Pre-Show Video Workshop	11
W.4.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	4	Full Steam Ahead	14

Fine Arts – Drama

Standard	Description	Grade	Activity	Page
K.1CE	Demonstrate observation and listening skills in a theatrical context.	K	Coming to the Theater	4
K.5CE	Listen to and follow directions in both classroom and theatrical settings.	K	Coming to the Theater	4
K.6CE	Use basic, appropriate vocabulary while engaging in dramatic play and attending theatre productions.	K	Coming to the Theater	4
K.5PR	Engage in drama and theatre experiences to explore concepts from other academic areas.	K	Pre-Show Video Workshop	11
1.4CE	Use appropriate dramatic and theatrical vocabulary (e.g., character, time and place) to describe dramatic and theatrical experiences.	1	Coming to the Theater	4
1.5CE	Demonstrate audience behavior appropriate for the forms and styles of theatre (e.g. live theatre, film, television, film and media).	1	Coming to the Theater	4
1.6CE	E Identify how audience behavior differs among dramatic forms (e.g., live theatre, film, video and broadcast media.)	1	Coming to the Theater	4
2.5CE	Use appropriate dramatic and theatrical vocabulary (e.g., plot, setting) to describe dramatic and theatrical experiences.	2	Coming to the Theater	4
2.6CE	Listen to and follow directions from instructor and peers in both classroom and theatrical settings.	2	Coming to the Theater	4
2.4PR	Engage in physical warm-ups to develop relaxation and build coordination and flexibility.	2	Pre-Show Video Workshop	11
2.3RE	Recognize and demonstrate acceptable audience behavior when participating in a drama experience.	2	Coming to the Theater	4
3.7PR	Use elements and processes of theatre to integrate information from other academic content areas.	3	Pre-Show Video Workshop	11
4.4CE	Use a variety of dramatic and theatrical vocabulary (e.g., theme, author, conflict, resolution) to describe a dramatic experience.	4	Coming to the Theater	4

4.6CE	Identify where dramatic and theatrical activities occur in the school or community.	4	Coming to the Theater	4
4.3RE	Explain how a theatrical experience (e.g., live theatre production, film, video and media) impacts its audience.	4	Coming to the Theater	4

Fine Arts – Visual Arts

Standard	Description	Grade	Activity	Page
K.1PE	Describe the meaning in the marks they make on paper.	K	Real Life Rosie	20
K.3PE	Describe different ways that an artwork expresses an emotion or mood.	K	Real Life Rosie	20
K.2PR	Generate ideas and images for artwork based on observation, memory, imagination and experience.	K	Building on Shapes	16
K.3PR	Discover, select and combine art and design elements to communicate subject matter in various visual forms.	K	Building on Shapes	16
1.3PE	Explore and use a range of subject matter to create original works of art.	1	Building on Shapes Real Life Rosie	16 20
1.3PR	Create an artwork based on observation of familiar objects and scenes.	1	Building on Shapes Real Life Rosie	16 20
2.3PR	Create artworks based on imagination and observation of familiar objects and scenes.	2	Building on Shapes Real Life Rosie	16 20
2.4PR	Demonstrate flexibility in their creative processes and use of art materials.	2	Building on Shapes Real Life Rosie	16 20
3.3PE	Find and solve problems of personal relevance and interest when developing artmaking ideas.	3	Building on Shapes	16
3.4PR	Create artworks that demonstrate awareness of two- and three-dimensional space.	3	Building on Shapes	16
3.5PR	Show increasing attention to the nuances of elements and principles of design when creating personal works of art.	3	Real Life Rosie	20
3.6PR	Collaborate with others to create a work of art that addresses an interdisciplinary theme.	3	Real Life Rosie	20
4.3PR	Generate ideas and employ a variety of strategies to solve visual problems.	4	Building on Shapes	16
4.4PR	Demonstrate motivation, independence and persistent during studio practices to complete artworks.	4	Real Life Rosie	20
4.5PR	Combine the elements and principles of art and design to create visually effective compositions in original works of art.	4	Building on Shapes Real Life Rosie	16 20

Mathematics

Standard	Description	Grade	Activity	Page
K.CC.1	Count to 100 by ones and by tens.	K	Pre-Show Video Workshop	11
K.G.4	Describe and compare two- or three-dimensional shapes, in different sizes and orientations, using informal language to describe their commonalities, differences, parts, and other attributes.	K	Building on Shapes	16
K.G.5	Model shapes in the world by building shapes from components, e.g., sticks and clay balls, and drawing shapes.	K	Building on Shapes	16
K.G.6	Combine simple shapes to form larger shapes.	K	Building on Shapes	16
1.G.1	Distinguish between defining attributes, e.g., triangles are closed and three-sided, versus non-defining attributes, e.g., color, orientation, overall size; build and draw shapes that possess defining attributes.	1	Building on Shapes	16
1.G.2	Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Students do not need to learn formal names such as “right rectangular prism.”	1	Building on Shapes	16
1.G.3	Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of or four of the shares in real-world contexts. Understand for these examples that decomposing into more equal shares creates smaller shares.	1	Building on Shapes	16
1.OA.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	1	Pre-Show Video Workshop	11
1.OA.3	Apply properties of operations as strategies to add and subtract.	1	Pre-Show Video Workshop	11

2.G.3	Partition circles and rectangles into two, three, or four equal shares; describe the shares using the words halves, thirds, or fourths and quarters, and use the phrases half of, third of, or fourth of and quarter of. Describe the whole as two halves, three thirds, or four fourths in real-world contexts. Recognize that equal shares of identical wholes need not have the same shape.	2	Building on Shapes	16
3.G.2	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.	3	Building on Shapes	16

Science

Standard	Description	Grade	Activity	Page
1.PS.2	Objects can be moved in a variety of ways, such as straight, zigzag, circular and back and forth	1	Pre-Show Video Workshop	11
2.PS.1	Forces change the motion of an object.	2	Pre-Show Video Workshop	11
4.PS.2	Energy can be transferred from one form to another.	4	Pre-Show Video Workshop	11

Social & Emotional Learning

Standard	Description	Grade	Activity	Page
B1.1.a	Identify personal behaviors or reactions when experiencing basic emotions	K-2	Traits and Emotions	18
B1.3.a	Identify and begin to use strategies to regulate emotions and manage behaviors	K-2	Traits and Emotions	18
B1.1.b	Demonstrate strategies to express a range of emotions within the expectations of the setting	3-5	Traits and Emotions	18
B1.2.b	Apply strategies to regulate emotions and manage behaviors	3-5	Traits and Emotions	18

Social Studies

Standard	Description	Grade	Activity	Page
K.Gov.9	Individuals share responsibilities and take action toward the achievement of common goals in homes, schools and communities.	K	Real Life Rosie	20

1.Gov.8	Individuals have responsibility to take action toward the achievement of common goals in homes, schools and communities and are accountable for those actions.	1	Real Life Rosie	20
1.Hist.2	Photographs, letters, artifacts and books can be used to learn about the past.	1	Real Life Rosie	20
2.Eco.15	Most people around the world work in jobs in which they produce specific goods and services.	2	Full STEAM Ahead	14
2.Eco.17	People earn income by working.	2	Full STEAM Ahead	14
2.Hist.2	Change over time can be shown with artifacts, maps, and photographs.	2	Real Life Rosie	20
2.Hist.3	Science and technology have changed daily life.	2	Real Life Rosie	20
3.Eco.16	Individuals must make decisions because of the scarcity of resources. Making a decision involves a trade-off.	3	Real Life Rosie	20
3.Gov.10	Individuals make the community a better place by taking action to solve problems in a way that promotes the common good.	3	Real Life Rosie	20
3.Hist.2	Primary and secondary sources can be used to show change over time.	3	Real Life Rosie	20
4.Hist.2	Primary and secondary sources can be used to create historical narratives.	4	Real Life Rosie	20

Technology

Standard	Description	Grade	Activity	Page
K-2.ICT.3.a	Develop basic skills for gathering and organizing information from multiple digital learning tools and resources to build knowledge.	K-2	Full STEAM Ahead	14
3-5.ICT.2.b	Use appropriate search techniques to locate needed information using digital learning tools and resources.	3-5	Full STEAM Ahead	14