

Rosie Revere, Engineer
by Andrea Beaty

LEARNING THROUGH STORIES



Rosie Revere, Engineer

	Monday	Tuesday	Wednesday	Thursday	Friday
Literacy	Sound It Out	Up, Down, and All Around	Problem and Solution	Symphony of Syllables	Cloud Writing
Math	Mystery Shapes	Shape Matching	Shape Sorting	Recycling Math	Making Patterns
Art	Beautiful Scraps	DIY Paintbrushes	Tinfoil Sculptures	Shadow Art	Drip, Swing, and Spin Painting
STEM & MakerSpace	Sink or Float	Paper Airplanes	Build a Trash Tower	Make a Hovercraft	Recycled Inventions
Gross Motor	Helicopter Spins	Hide-and-Seek	Balancing Act	Kick the Can	Trash-to-Treasure Relay Race

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LITERACY

Learning Outcome: The children will enhance literacy and language development. The children will strengthen their fine motor skills through these activities.

Monday	Tuesday	Wednesday	Thursday	Friday
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Vocabulary Words: engineer, treasure, stash, gadget, dismayed, daring, perplexed
(Note to Parents: This book has many high-level vocabulary words that make the text both challenging and exciting. Practice saying the words out loud to your child while showing them the vocabulary cards to help familiarize them with the words. Also, be sure to help your child use context clues in the text to decipher each word's meaning!)

<p>Sound It Out</p> <p><i>Listen carefully to the vocabulary words. Can you identify the beginning sound of each word?</i></p>	<p>Up, Down, and All Around</p> <p><i>Practice using positional language to play a treasure hide-and-seek game.</i></p>	<p>Problem and Solution</p> <p><i>Can you identify some of the problems Rosie had throughout the story? What solutions did she have for them?</i></p>	<p>Symphony of Syllables</p> <p><i>Create your own recycled material instruments to break down the syllables in the vocabulary words.</i></p>	<p>Cloud Writing</p> <p><i>Practice writing out the vocabulary words in shaving cream for some good clean fun!</i></p>
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<p><i>Materials:</i> digital book, vocabulary word cards</p>	<p><i>Materials:</i> an object to hide (like a doll or toy)</p>	<p><i>Materials:</i> digital book, paper, pencils, crayons, markers</p>	<p><i>Materials:</i> vocabulary word cards, empty recycled containers, wooden dowel (or similar instrument)</p>	<p><i>Materials:</i> vocabulary word cards, shaving cream</p>
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<p>Instructions:</p> <p>Step 1: Have the vocabulary words ready for your child.</p> <p>Step 2: Read the first word clearly so your child can hear the letter sounds.</p> <p>Step 3: Have your child identify the beginning sound of each word.</p> <p>Step 4: As you go over each word, take the time to explain its meaning - use context clues from the story to help them try to decipher each word's meaning on their own first!</p> <p>Step 5: Have fun and enjoy this time with your child</p>	<p>Instructions:</p> <p>Step 1: Rosie liked to hide her found treasures UP in her attic to keep them safe, and she would store her inventions UNDER her bed. Review the different types of positional words that help us understand where things are located (i.e. under, over, behind, beneath, between, on, above, up, down, etc.)</p> <p>Step 2: Now to play the game, take the treasured object your child chose and hide it somewhere in the room.</p> <p>Step 3: Use positional language to provide clues to your child to help them find the treasure.</p> <p>Step 4: Take turns hiding and giving clues to find the treasure, and don't forget to have fun!</p>	<p>Instructions:</p> <p>Step 1: Reread the story with your child.</p> <p>Step 2: Ask questions you read to check for understanding. Have your child help identify some of the problems Rosie encounters throughout the story.</p> <p>Step 3: Ask what solutions does she come up with for the different problems?</p> <p>Step 4: Have your child pick one problem and solution that they identified and draw it out on paper.</p>	<p>Instructions:</p> <p>Step 1: Have vocabulary words ready.</p> <p>Step 2: Find an empty recycled container that makes a fun sound when you tap it.</p> <p>Step 3: Say each vocabulary word out loud and listen to how it sounds. Tap out each syllable on your instrument as you say the word. <i>(i.e. en-gi-neer, trea-sure)</i></p> <p>Step 4: Repeat this process for each word.</p>	<p>Instructions:</p> <p>Step 1: Have the vocabulary word cards ready.</p> <p>Step 2: Squirt some shaving cream onto the table.</p> <p>Step 3: Let your child practice writing out each vocabulary word into the shaving cream. Be sure to help them read each word before and after they spell it.</p> <p>Step 4: Have fun and get creative!</p>
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MATH

Learning Outcome: The children will develop and strengthen their mathematical thinking, communication, and social skills.

Monday

Mystery Shapes

Can you guess the shape just by the way it feels?

Materials: cardboard, scissors, large bag that you cannot see through

Instructions:

Step 1: Parents, you will need to cut out a variety of cardboard shapes ahead of time (circle, oval, triangle, square, rectangle, trapezoid, heart, and hexagon).

Step 2: Secretly place one of the shapes into the bag and hand the bag to your child.

Step 3: Without looking, have your child reach into the bag and feel the shape.

Step 4: Have them describe the shape's attributes. (How many sides does it have? Are the sides the same length or are they different? etc.)

Step 5: Once they have made their guess, have them pull the shape out to see if they were right.

Step 6: Continue guessing and having fun with each of the other shapes!

Tuesday

Shape Matching

Can you match the objects to their outlines and name their shapes?

Materials: paper, markers, variety of recycled materials in different shapes and sizes

Instructions:

Step 1: Parents, ahead of time you will need to trace out a variety of different recycled materials onto a large sheet of paper (or onto several sheets).

Step 2: Have your child help you identify each of the different traced out shapes on the paper (square, rectangle, circle, oval, etc.).

Step 3: Next, let your child grab one of the recycled objects that you used and try to match it to its correct outline. Help them identify the different shape attributes, such as number of sides, length of the sides, and the different sizes of shapes.

Step 4: Continue letting your child match the different objects to their outlines and remember to have fun!

Wednesday

Shape Sorting

How can we sort the different shaped recycled objects?

Materials: variety of recycled materials in different shapes and sizes, 2 index cards, marker

Instructions:

Step 1: Ask your child to look at the different recycled objects. What kinds of shapes do you see?

Step 2: Have your child help you identify the two main types of shapes that you see. (Perhaps rectangles and squares, or rounded objects and prism objects?)

Step 3: Once you have identified your two main shapes types, write them on each of your index cards and place the cards on the floor with room between them.

Step 4: Have your child sort the objects into the two categories. Help them with more confusing shapes if necessary, noticing if some shapes could fall into more than one category.

Thursday

Recycling Math

Using recycled materials, let's practice some math skills by building and taking apart groups of objects!

Materials: variety of recycled materials

Instructions:

Step 1: Begin by placing a set of 3 objects on the table.

Step 2: Ask your child to identify how many objects are in the set.

Step 3: Tell them you now want to make it a set of 5. What do they need to do to change the set of 3 into a set of 5? (*They need to add 2 more to the set.*)

Step 4: Have them complete the operation by adding the 2 additional objects.

Step 5: Continue building and taking away objects from the sets, changing the way you ask the questions each time. Such as: *Now how many do I have? What if I take away #? How many are there if I put # more in? etc.*

Friday

Making Patterns

Let's see if we can make some fun patterns using shapes and colors!

Materials: variety of recycled materials in different shapes, sizes, and colors

Instructions:

Step 1: Parents, before doing this activity, you want to make sure you have a good variety of objects to create different types of patterns with.

Step 2: Have your child look at the different recycled materials. Do they notice some that are the same and some that are different?

Step 3: Begin creating a pattern using the objects. (Start simple with an AB pattern, then build to more complex patterns such as ABB or ABC.)

Step 4: Ask your child to help you pick out the next object(s) to continue the pattern.

Step 5: Mix it up with different patterns, such as alternating colors or shapes. Have fun!



ART

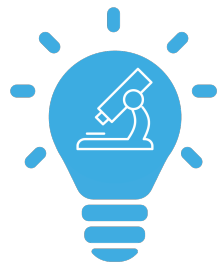
Learning Outcome: The children will enhance their arts creativity by re-enacting the tale over and over, and then perform their versions of the story.

Monday	Tuesday	Wednesday	Thursday	Friday
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Beautiful Scraps	DIY Paintbrushes	Tinfoil Sculptures	Shadow Art	Drip, Swing, and Spin Painting
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<p><i>Materials:</i> scraps of colorful paper and/or recycled materials, glue, tape, scissors, paper or cardboard</p>	<p><i>Materials:</i> recycled materials, scissors, paint, paper</p>	<p><i>Materials:</i> tinfoil</p>	<p><i>Materials:</i> recycled materials, paper, crayons or markers, pencil, white paper, outdoor space or a bright light source</p>	<p><i>Materials:</i> disposable cup, yarn, scissors, paint, white paper, newspaper</p>
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<p>Instructions:</p> <p>Step 1: Lay out paper scraps and other recycled materials and supplies.</p> <p>Step 2: Using your creativity and your imagination, can you make a picture or a sculpture?</p> <p>Step 3: Have fun and enjoy this time with your child!</p>	<p>Instructions:</p> <p>Step 1: Have a variety of recycled materials available to experiment painting with different textures.</p> <p>Step 2: Try painting with bottle caps, cardboard scraps cut in different ways, or see what fun circle shapes you can paint with cups and containers.</p> <p>Step 3: Use your imagination and creativity to have fun!</p>	<p>Instructions:</p> <p>Step 1: Start off by thinking about what kind of sculpture you want to make. Remember, you can always change your design as you go, but starting with a plan will help give you a goal.</p> <p>Step 2: Begin with a large sheet of tinfoil and slowly start crumpling it and bending it to help it take shape.</p> <p>Step 3: Use your creativity to help your sculpture take shape!</p>	<p>Instructions:</p> <p>Step 1: Place your paper on the ground and hold your hand over it. Notice where the sun/light is shining from.</p> <p>Step 2: Stack recycled materials next to your paper so that their shadows land on the white paper.</p> <p>Step 3: Play around with the shadow shapes until you like what you see, then carefully trace the outline of the shadow with your pencil.</p> <p>Step 4: Once you have traced your shadows, you can move your stacked objects and color in your outlined shadow design.</p> <p>Step 5: Use your imagination to create all kinds of fun designs!</p>	<p>Instructions:</p> <p>Step 1: Parents, you will need to prepare the paint cups ahead of time. Poke holes in the sides of the top edge of the cup so you can string the yarn through to hang the cups. Then poke a hole in the bottom of the cup for the paint to pour out.</p> <p>Step 2: Lay the newspaper on the ground to protect the floor, then place your sheet of paper in the middle.</p> <p>Step 3: Have your child hold the cup over the paper by the yarn while you carefully pour paint into the cup.</p> <p>Step 4: Slowly swing, sway, and spin the cup to create cool paint patterns! Try using different colors and have fun!</p>
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STEM & MAKERSPACE

Learning Outcome: The children will use their creativity and enhance their scientific thinking and communication skills. Children will learn to predict, observe, record, and analyze the data.

Monday	Tuesday	Wednesday	Thursday	Friday
Sink or Float	Paper Airplanes	Build a Trash Tower	Make a Hovercraft	Recycled Inventions
<i>Materials:</i> variety of objects to test, container, water, paper, pencil	<i>Materials:</i> sheets of paper	<i>Materials:</i> variety of recycled materials, tape	<i>Materials:</i> paper plate, plastic drinking straw, tape (preferably duct tape), balloon, scissors	<i>Materials:</i> variety of recycled materials, other random objects or craft materials, scissors, tape,

Instructions:

Step 1: Have all materials ready

Step 2: Start by creating a chart with three columns. The first column will have the objects you will test. The second column will give your prediction. And the third column will have your results.

Step 3: Before you place your first object in the water, record your prediction of whether you think it will sink or float.

Step 4: Test your prediction by placing the first object in the water. What was the result? Record your findings.

Step 5: Continue with each of the objects, and don't forget to record your predictions and your findings, and of course, have

Instructions:

Step 1: Review the story and explain that today your child is going to help Aunt Rose fulfill her dream to fly!

Step 2: Given a sheet of paper, experiment with different folds to make a paper airplane.

Step 3: Give your plane a test flight. How did it do?

Step 4: Try making another plane using a different design.

Step 5: Compare how the different designs change the flight patterns of the planes. Do different designs help some fly farther than others? Or perhaps they make the plane to loopy-loops? Have fun experimenting!

Instructions:

Step 1: Using a variety of recycled materials, such as boxes, cans, and bottles, give your child the challenge to build a tower without tape.

Step 2: How tall could they build their tower without the tape?

Step 3: How could they modify their design to make it more structurally sound? (Perhaps by widening the base, or choosing different material shapes?)

Step 4: Now, how can they make their tower taller and/or stronger using the tape?

Step 5: Have fun building with your child!

Instructions:

Step 1: Cut a small hole in the center of the paper plate, then stick the straw through it.

Step 2: Flip the plate upside down and adjust the straw so that the plate can lay flat on the table.

Step 3: Cut the straw so it only sticks up about 2 inches above the plate.

Step 4: Place the balloon over the straw and secure it with the tape.

Step 5: Flip the plate over and blow into the straw to inflate the balloon (you may find it helpful to insert another temporary straw into the bottom to help blow up the balloon). Once it is inflated, pinch the end of the balloon to hold the air inside.

Step 6: Carefully flip the plate over onto the table and release the balloon and watch your hovercraft go!

Step 7: Repeat and have fun!

Instructions:

Step 1: Start with a review of the inventions Rosie came up with. Why did she invent those things? What purpose did they serve or what problem did they solve?

Step 2: Brainstorm what kind of things might make your life easier?

Step 3: Using all of the wonderful recycled materials and odds and ends on hand, let your child begin tinkering, building, and inventing.

Step 4: Ask them as they create, what is it that they are making? What purpose does it serve or how can it help someone?

Step 5: Allow your child to continue tinkering and inventing to their heart's content. And above all, have fun and enjoy this time with your child!



GROSS MOTOR

Learning Outcome: The children will have the opportunity to enhance and develop their gross motor skills by using large and small skills and using their imagination. Children will engage in outdoor and indoor play and learn to take turns.

Monday	Tuesday	Wednesday	Thursday	Friday
Helicopter Spins	Hide-and-Seek	Balancing Act	Kick the Can	Trash-to-Treasure Relay Race
Materials: open space	Materials: children, parent	Materials: random objects to balance	Materials: empty can or bottle, open space	Materials: variety of recycled materials, baskets, open space

Introduction:
Rosie wanted to help her aunt fly, so at the end of the book she made a “helio-cheese-copter” for her. Can you spin like a helicopter and practice your balancing and spatial-awareness skills?

Instructions:

Step 1: Move to an open space where you can spin without bumping into things

Step 2: Open your arms and start spinning

Step 3: Try spinning slowly, then spin faster.

Step 4: Try spinning slowly with your eyes closed. Is it easier or harder?

Step 5: Have fun spinning!

Introduction:
Rosie used to search for treasures among the trash and then hide them in the attic for safe keeping. For this activity, YOU pretend to be Rosie’s treasure and play a game of hide-and-seek!

Instructions:

Step 1: Decide who is going to hide first and who is going to seek

Step 2: Whoever is the seeker will close their eyes and count to 20 while the other person hides

Step 3: After counting, shout, “Ready or not, here I come!” and start seeking out the person hiding

Step 4: Take turns hiding and have fun!

Introduction:
One of Rosie’s inventions was a hat to keep snakes off of her Uncle Fred’s head. She made it with parts of a fan and some cheddar cheese spray! Can you balance silly things on your head?

Instructions:

Step 1: Find objects around the house that you think you could balance on your head (pillow, book, bowl, etc.)

Step 2: Take turns trying to balance the objects

Step 3: Try walking around while balancing

Step 4: Have fun and get creative!

Introduction:
Who says trash can’t be fun? Rosie had fun with it all the time. Today, turn your trash into a game!

Instructions:

Step 1: Have the empty can or bottle ready

Step 2: Kick the can forward and backward

Step 3: Run while kicking the can

Step 4: Set up a goal. Can you kick the can into the goal?

Step 5: Have fun with your child!

Introduction:
“One man’s trash is another man’s treasure,” they say. How quickly can you get all of your trash into the treasure box?

Instructions:

Step 1: Place a variety of recycled materials in the “trash” basket on one side of the room

Step 2: Place the “treasure” basket on the other side of the room

Step 3: The first person grabs one item from the trash basket and races it to the treasure basket, then runs back to the starting point

Step 4: Then the next person grabs another piece of trash and races it to the treasure

Step 5: Keep taking turns until all the trash has been turned into treasure!

*Consider competing in teams!



engineer

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treasure

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stash

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daring

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dismayed

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gadget

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perplexed

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PATTERNS

Finish the pattern

PATTERNS

Finish the pattern

PATTERNS