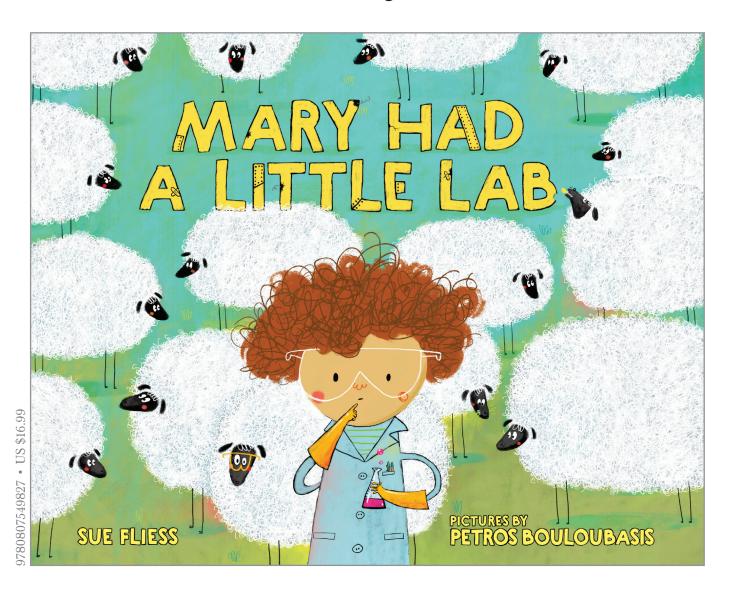
MARY HAD A LITTLE LAB

Activity Kit



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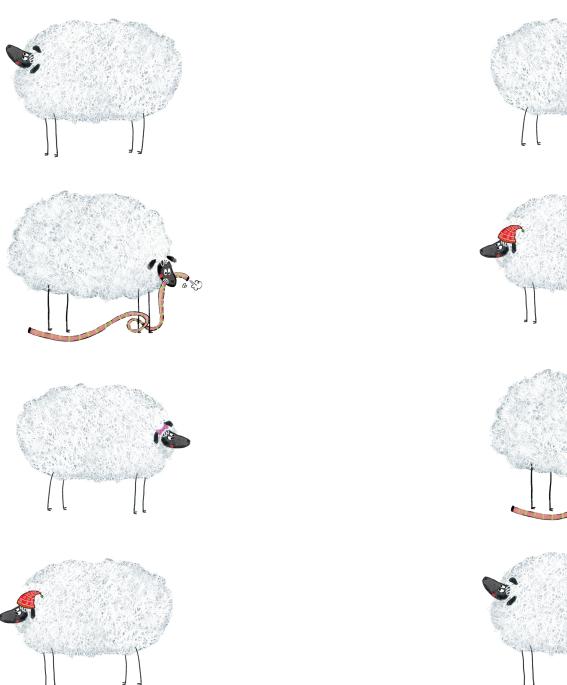






SEEING DOUBLE

The Sheepinator made clones of a sheep, which means that all the sheep were identical. Can you match the pairs of cloned sheep in the columns below?



SPOT THE DIFFERENCE

The Sheepinator is experiencing technical difficulties! Can you find ten differences between the two images?





WRITING NURSERY RHYME POETRY

Kids can learn or review common nursery rhymes, notice patterns and rhythms used to tell a story, plus create their own rhymes and patterns.

You Will Need:

- Mary Had a Little Lamb copy (see p. 5)
- Mary Had a Little Lab
- lined paper
- nursery rhyme template (see p. 6–7)

Time: 2 days, 30-45 minutes each

Activity Day 1:

- 1. Project "Mary Had a Little Lamb" on screen. Read original nursery rhyme to students, asking them to listen for rhyme patterns.
- 2. Read *Mary Had a Little Lab* aloud, noticing the same patterns and rhymes.
- 3. Talk about similarities and differences between the two versions. What do they have in common in their rhyme pattern? What is similar in the two stories? Which story do they prefer? Why?

Activity Day 2:

- 1. Reread Mary Had a Little Lab aloud.
- 2. Project a copy of the nursery rhyme template (version 1). Model for the students as you brainstorm a class version of the rhyme. Be sure to start with words that are "rhymable" such as "toe," "shoe," or other one-syllable words. (Note: Color words are required but nothing rhymes with "orange.")
- 3. For older students, use the version 2 template and have them try writing their own nursery rhyme. Younger students can work in pairs.

Extensions

- 1. Explore other nursery rhymes common in American culture: "Little Bo Peep," "Little Miss Muffet," "A Tisket a Tasket," etc.
- 2. Research the real history behind the nursery rhymes.
- 3. Read other "fractured" nursery rhymes and compare to the original.
- 4. Illustrate the new nursery rhymes created.

MARY HAD A LITTLE LAMB

Mary had a little lamb,
Its fleece was white as snow;
And everywhere that Mary went
The lamb was sure to go.

He followed her to school one day
Which was against the rule;
It made the children laugh and play,
To see a lamb at school.

And so the teacher turned him out,
But still he lingered near;
And waited patiently about
Till Mary did appear

"What makes the lamb love Mary so?"

The eager children cry;

"Why, Mary loves the lamb, you know,"

The teacher did reply.

-Sarah Josepha Hale, 1830

NURSERY RHYME TEMPLATE

Version 1

Directions: Fill in the blank with a word of your choice. Lines of the same color should end with a rhyming word.

Mary had a little			
	animal		
Its was	S	as	
noun	color		thing that is the color
And everywhere that M	ary went,		
the wa	s sure to		·
animal		verb	
He followed her to scho	ol one day,		
which was against the r	ules.		
It made the children	a	nd	
	action verb		action verb
to see a(n)	at school!		

Version 2

Directions: Write your own version of the nursery rhyme. Above each word, replace it with a word of your choice using the same part of speech. Make it funny! Lines of the same color should end with a rhyming word.

Mary	had		a	little	ē	lamb.
Its	fleece	was		white	as	snow.
And	everywhere		that	Ma	ary	went,
the	lamb	was		sure	to	go.



IF I INVENTED A MACHINE

Brainstorm types of everyday machines that we use to solve problems by conceptualizing the purpose and thinking behind machines and inventions. Then, kids can write or draw a description of their own imaginary machine that can solve a problem.

You Will Need:

- Mary Had a Little Lab
- paper
- drawing materials
- vocabulary chart (see below)

Time: 1-2 days, 30-45 minutes each

Activity:

- 1. Read Mary Had a Little Lab aloud with class.
- 2. Discuss by asking "What problem was Mary trying to solve in the beginning of the story?" "What did she do to solve the problem?" "What did she do when her invention did not work?"
- 3. Talk about the machine she created. Project the picture from page 5 or 6 of the book for the students to study. What do they notice?
- 4. Make a list of key vocabulary words on a chart as students study the picture of the machine.
- 5. Brainstorm a list of machines we use every day that solve problems (washing machine, dishwasher, shower, telephone, car). What problem is solved by each?
- 6. Depending on the age of the students, have the kids brainstorm in pairs a type of imaginary machine they would like to invent that would solve a problem (a machine that can put on your shoes and socks, a machine that walks the dog, a machine that cleans up spills). Encourage them to include key vocabulary words in the design.
- 7. Younger students can draw their invention. Older students can write about it first, then draw a sketch with parts labeled with key vocab.

Machine

Problem Solved

Extensions

- 1. Students can write their own story to go along with their machine.
- 2. Have students put their drawings on display with a caption describing the problem it solves. Use a copy of the cover of the book as the center of the display for a great bulletin board showing creative thinking, simple machines, and art.

Key Vocab

lever wheels springs machine gears switches solve pulleys invention problem pipes



TO THE DRAWING BOARD!

Mary had a little lab where she tested and created, built and calculated.

Draw what you would do in your lab!



WHERE'S THE SCIENCE IN THAT?

Experiment with objects to try to move a ball in order to understand how simple machines create force or movement.

You Will Need:

- Mary Had a Little Lab
- bouncy ball or marble
- craft materials such as cardboard, paper towel rolls, masking tape, empty water bottles, popsicle sticks, yarn, paper cups, pipe cleaners, straws, empty tissue box, pencil, paper clips

Time: 2+ days

Activity:

- 1. Read *Mary Had a Little Lab* aloud to the class.
- 2. Project a picture of Mary's machine on the screen or SMART board. Have students talk about the parts on the machine and what they are. "Can you see anything that looks like a wheel?" "Where do you see a lever or a switch?" "What might be the inclined plane or ramp?"
- 3. Talk about simple machines and make a chart to identify each type (see below).
- 4. Have students work in teams of 3 or 4 to experiment with the materials you've provided.
- 5. For younger kids, have them try to find examples of simple machines in the pile of materials. Can they make the cup roll? What kind of simple machine is that? What item could be used to build a lever? What could be used to make a ramp (inclined plane)?
- 6. For older kids, have them try to identify one type of each of the six simple machines. Next have them find a way to move the ball without touching it. Give an example with the paper towel roll. Ask: "What can I do with this object to move the ball without touching it?" In teams, have them try various ways to move the ball with the objects. They can use the tape to put things together and build a complex machine (using more than one simple machine). Can they build ramps? Levers? Pulleys? Wedges? Wheels?
- 7. Have each group share with the class.

Extensions

- 1. As with any STEM activity, make sure to post and discuss the steps to problem solving: ASK, THINK, DESIGN, BUILD, TEST, IMPROVE.
- 2. Have kids film their trials and errors as they try to build a machine to move the ball.
- 3. When done, put all materials in a "Makers Space" or a "Tinker Station" in the room. Brainstorm a list of rules for the space as a class and post in the area. Let students use their imaginations and ingenuity to build, design, and experiment to create their own "machines."

Simple Machines and Examples

Pulley Cup with yarn wound around

Lever Popsicle stick, pipe cleaner, straw

Wheel and Axel Cup, paper towel roll
Wedge Folded cardboard

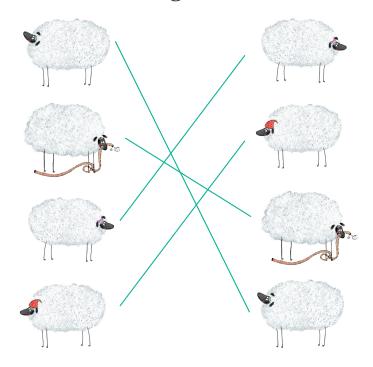
Screw Pipe cleaner wound around a pencil

Incline Plane Cardboard ramp



ANSWERS

Seeing Double



Spot the Difference

