

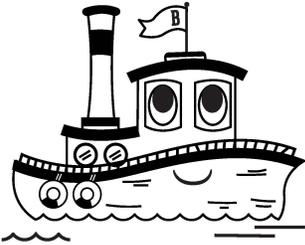
TUGBOAT BILL

AND THE RIVER RESCUE



STORY HOUR KIT

ABOUT THE STEM KIT



“This delightful tale will be a hit in storytime...”

—*School Library Journal*

If interactive read alouds float your boat, explore using this kit in an early childhood or elementary classroom, library, or bookstore or at a child’s party or play date. Best for ages 3-8.

In the picture book **Tugboat Bill and the River Rescue**, Bill and his barge friend Mabel prove to be heroes of the Hudson River when they rescue a kitten that falls in the water. This kit provides black and white templates of Bill, Mabel, and the kitten for your story hour kids to reenact the tale. Bill and Mabel are designed to be floatable standees!

The book’s river setting opens an opportunity to provide a simple STEM demonstration about how density affects floating objects. This kit walks you through the materials, practice, and suggested dialogue of that demonstration. There is even a take home sheet so the experiment can be replicated in the family bathtub.

ABOUT THE BOOK

Tugboat Bill and the River Rescue

By Calista Brill

Illustrated by Tad Carpenter

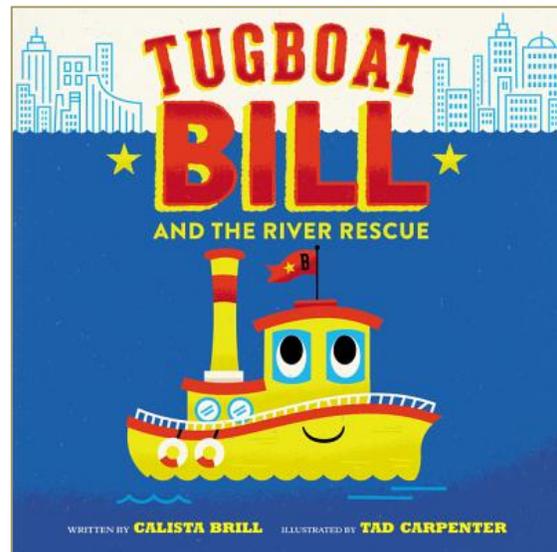
Published by HarperCollins Publishers

ISBN-13: 9780062366184

Age Range: 4 - 8 Years

Bill is a tugboat. Mabel is a barge. Together they go up and down the choppy river.

The other ships are big and vain. They tease Bill and Mabel. But when a kitten falls in the water, it’s up to Bill and Mabel to save the day!



PRAISE FOR THE BOOK

A bright, adjective-laden work that will appeal to toddlers and preschoolers. . . . Brill's text contains rich vocabulary (Bill's captain is either "sunny or sour," depending on the day; the ships are "haughty and vain") and is filled with boat-related terms that serve to paint a vivid picture. So, too, do Carpenter's retro, flat illustrations, which are mostly done in primary colors, with occasional touches of green, black, and gray. . . . This delightful tale will be a hit in storytime and in one-on-one readings with young transportation fans."

—*School Library Journal*

"With short, eclectic line breaks and occasional rhymes, Brill's narrative has a slightly swaying feel not unlike standing on a ship deck: it takes a little getting used to, but those reading aloud will soon get their sea legs. Carpenter's doughty, expressive protagonists will instantly remind readers of their own beloved bathtub toys, and his bold graphics and schoolroom palette tip their hat to the legacy of tugboat stories that have come before."

—*Publishers Weekly*

"Alliteration and playful descriptors further add to its read-aloud appeal. An uplifting story sure to tug heartstrings." —*Booklist*

"Brightly colored illustrations capture the feeling of bygone times, and gentle rhymes full of alliteration bounce briskly along. . . . Sure to be a favorite with young listeners, this warm and comforting selection, eminently suitable for bedtime or laptime reading, has the feeling of a classic to be savored. . . . An old-fashioned story with timeless appeal." —*Kirkus Reviews*

OTHER RESOURCES

This kit was created by Kirsten Cappy of Curious City. Visit CuriousCityDPW.com for other free story hour kits, event kits, treasure hunts, book club guides, book giveaways, and other ways to engage in children's literature with play, conversation, and social action.

ABOUT THE AUTHOR & ILLUSTRATOR

Originally from Detroit, Michigan, **Calista Brill** is a writer and editor based in New York City. She writes stories about boats, cats, dragons, construction equipment, elephants, and many other things. She likes reading comic books, sewing quilts, and eating lime Popsicles. Visit her online at calistabrill.com.

Tad Carpenter is a designer, illustrator, teacher, and author. He has written and illustrated over a dozen books for readers of all ages. Tad runs his design and branding studio, Carpenter Collective, with his wife, Jessica, in Kansas City, Missouri. Visit him online at tadcarpenter.com.

PREPARING FOR THE ACTIVITIES

You will, of course, create your own grand program or lesson plan! Following are simply suggested ways to prepare for an event or classroom experience.

___ Locate a copy of the picture book **Tugboat Bill and the River Rescue** by Calista Brill and illustrated by Tad Carpenter (HarperCollins Publishers).

MARKETING

___ If you list your events in newsletters and online calendars, here is some text that may help with those listings:

Boats can do amazing things! Not only can boats float on water and carry heavy loads, but some boats can even rescue kittens. Together we will read **Tugboat Bill and the River Rescue** by Calista Brill and illustrated by Tad Carpenter (HarperCollins) and explore the STEM concept of density and how it affects floating objects. All welcome, but best for ages 3-8.

___ If this event is for the public, print out the event poster (page 8), add your date, time, and location, and duplicate it to advertise the event. If you prefer to adapt the poster on your computer, you can find a JPEG of the poster design on CuriousCityDPW.com. Simply search for “tugboat” and navigate to the Story Hour Kit listing. The fonts on the poster are Perrywood MT and AdLib MT.

STEM FLOATING DEMONSTRATION

The picture book’s depictions of Bill the tugboat, Mabel the barge, and other boats offer an opportunity to do a simple STEM demonstration during story time. Try this at home or in the break room sink to determine whether or not you want to replicate the book’s river for a lesson on floating and density.

___ Locate a roll of aluminum foil.

___ Fill your sink with 2.5” - 3” of water.

___ Pull off a 12” x 12” piece of foil. It does not have to be exact!

___ Fold the sheet in four. Smooth it out as you go.

___ Fold all four sides up until it forms the shape of a square-bottomed boat. See photo.



___ Float the “boat” on the water. It floats!

___ Pull it out of the water and smooth down the boat’s sides.

___ Fold it again and again until you end up with a roughly 1” square. Push on it with every fold, to get the air out.

___ Drop it in the water. It sinks!

What has happened here? You have changed the density of the aluminum foil. Density is a major factor in what floats and what does not.

___ Have a look at the STEM Demonstration: How Density Affects Floating Objects suggested script on pages 10-11 for further explanation and suggestions for taking about it with children.

We also recommend the picture books **Things That Float and Things That Don’t** by David A. Adler and illustrated by Anna Raff (Holiday House) and **A Drop of Water: A Book of Science and Wonder** by Walter Wick (Scholastic, Inc.) to prepare yourself for the conversation or to display at your event!

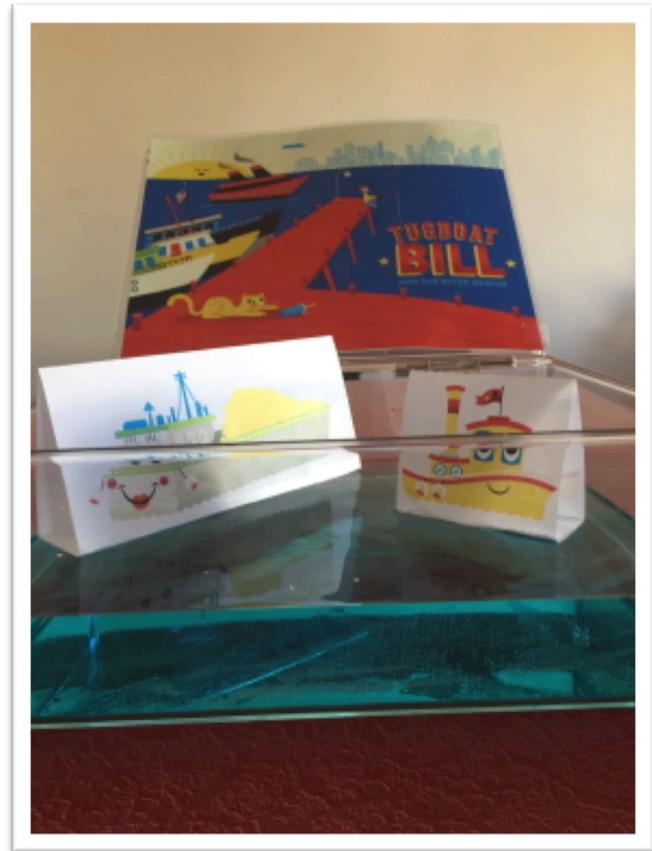
PORTABLE HUDSON RIVER FOR BILL & MABEL

If you plan to do this water demonstration at story hour, you will need to somehow bring that sink of water with you!

___ Locate a clear (water-tight) bin. It is best if the width of the bin is 9” or larger. If the bin has a lid, it will keep curious hands out of the water during the lead up to story time.

___ Locate blue food coloring. A few drops will give the water the hue of the book’s Hudson River.

With such a lovely “portable Hudson River” at your disposal, you might consider using it as a prop not just for the STEM demonstration, but as a prop during the read aloud itself. You can add the characters to the “river” as they are introduced in the story. We have included a full-color standee of the boat characters Bill and Mabel in this kit on pages 12-13.



___ Cut and fold Bill the tugboat and Mabel the barge.

___ To seal the paper boats against water, generously scotch tape the three locations on the wee boats where two sides of the paper touch. Add packing tape to the full bottom of the boat. Make the packing tape a wee bit longer than the boat and attach the excess to the sides. All of this tape keeps the boats from absorbing too much water.

INTERACTIVE READ ALOUD

If you are the kind of story time leader who likes audience participation, we have created four roles for your crowd. There are roles with quiet sound effects for Bill, Mabel, the Kitten, and the Hudson River. You can “assign” those roles by handing out the “You Are...” ¼ sheets we have provided. We have also created a suggested script for including those sound effects in your read aloud.

___ Consider the read aloud script on pages 14-20. You are, of course, a veteran story hour reader and may not need much of this. Hope there is some good ideas in it!

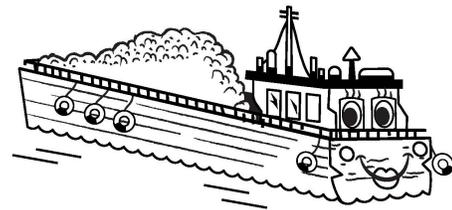
___ Print and trim the “You Are...” ¼ sheets on page 21. Collate the ¼ sheets so you have one of each role followed by the next set and the next. This will allow you to evenly assign the roles on the day of the event.

MAKING BILL & MABEL

For a post-reading activity, we have provided a black and white version of the Bill and Mabel standees. If you would like kids to take the boats home for bath time play (and science), you can prep for boat building!

___ Print and trim the black and white versions of Bill and Mabel on pages 22-23. Print enough so each child can have both boats.

___ Set aside scotch tape and crayons for the day of the event.



___ Color and assemble a demo.

One cannot forget the Kitten who is rescued by Mabel! We have also provided a small cut-out kitten that your readers might attach to their boats by string or tape to the deck.

___ Print out and trim the Kitten sheet on page 24.

___ Locate some string so readers can reenact Mabel’s rescue of the kitten. Red and white striped baker’s twine matches the illustration in the book perfectly!

SENDING STEM HOME

After seeing you float Bill and Mabel in the portable Hudson River, your readers may want to take Bill and Mabel and perhaps even an aluminum boat into the bathtub. Consider sending a little STEM lesson home with students or families.

___ Print the Float Your Boat takeaway sheet on page 25.

Gosh, there seem to be a lot of pieces going home!

___ Consider providing lunch bags for take-home boats, kittens, and other story time floaties.



SETTING UP THE DAY OF THE EVENT

Set-up your craft table with:

- ___ B&W Bill template
- ___ B&W Mabel template
- ___ B&W Kitten template
- ___ Crayons
- ___ Scissors
- ___ String
- ___ Tape
- ___ Colored Bill & Mabel sample
- ___ Paper bags
- ___ Float Your Boat sheets

Set-up the portable Hudson River by:

- ___ Pouring a gallon (or less) of water into your clear bin.
- ___ Putting in a small squirt of blue food coloring.
- ___ Closing the lid to keep away curious fingers.
- ___ Placing an open paper bag and paper towel within reach for possible sinkers.
- ___ Pulling off a 12" x 12" square of foil and leave it within reach
- ___ Assembling Bill & Mabel in color. Consider making a back-up set in case you have a sinker.

- ___ Place the "You are..." sheets somewhere handy to give out as students or families arrive.

EVENT ACTIVITIES

- ___ Hand-out the "You are..." sheets as students or families arrive. Tell them something like, "I am hoping you will help me with the read aloud today by playing the role of _____. It is simple. All it takes is a small sound!"

- ___ Have a rollicking read aloud.

- ___ Demonstrate the effect of density on floating objects.

- ___ Lead the making of Bills and Mabels to take home.

- ___ Hand out the Float Your Boat sheets for home STEM.

- ___ Sink into a chair and declare yourself the hero/ine of today's river rescue!

Story Time

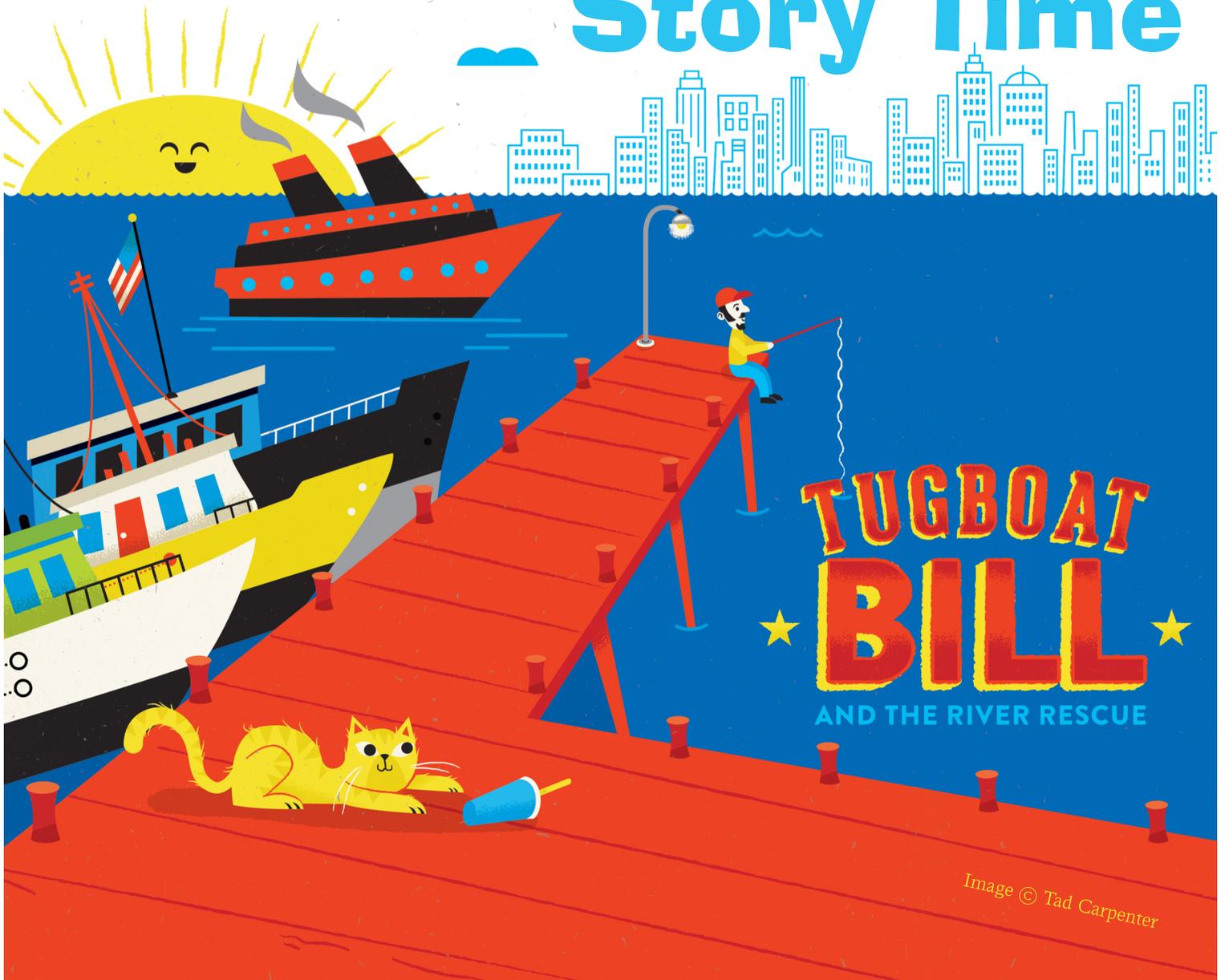


Image © Tad Carpenter

STEM DEMONSTRATION: HOW DENSITY AFFECTS FLOATING OBJECTS: *Sample Script*

[See instructions on pages 4-5 of this kit on how to prepare for this activity.]

Now, is anyone curious about why a boat like Bill or Mabel floats?

Let's do a demonstration to find out.

[Pull out your 12" x 12" piece of aluminum foil.]

I am going to take this square piece of aluminum foil...fold it in fours...and then fold up the sides to make it shaped like a boat.

Do you think it will float on the water? Let's see...

[Float the "boat" in your clear bin.]

One of the reasons it floats is that the boat is not very dense.

What does dense mean? I'll show you!

[Pull the boat out and show it to the kids.]

See how our boat is wide and flat and the walls are thin? All of these things (wide, flat, and thin) make the boat not very dense.

What does dense look like?

[Fold the foil into a tight, tight square. Push firmly with each fold to push out the air.]

This is the same boat, but I just changed its density. I have made all its parts closer together. It is now more dense.

Will it still float? Let's try it.

[Drop the square in the water. It should sink.]



When the foil was in a boat shape, it had lots of air around it and it was less dense than water. It floated.

When we folded that boat down into a small square, we took away a lot of the air and now it is MORE dense than the water. It sunk.

This is one of the really amazing things about science. When you are at home, fill the bathtub or a sink with an adult and try dropping different things in the water to see if they float. Some things will be MORE dense than water and will...what?

Yes, sink!

Some things will be LESS dense than water and will...what?

Yes, float!

[If you have a Bill and Mabel floating in your bin, you can also point out...]

This Bill and this Mabel are floating because the paper is less dense than the water. The water, though, is starting to soak into the paper, making it more and more dense. Soon, this Bill and this Mabel will sink.

It is a good thing that they do not make boats out of paper!

Chug on over to your local bookstore or library to read
TUGBOAT BILL AND THE RIVER RESCUE
by Calista Brill and illustrated by Tad Carpenter (HARPER)
Did your Bill sink? Find PDFs to print at calistabrill.com.



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Image © Tad Carpenter



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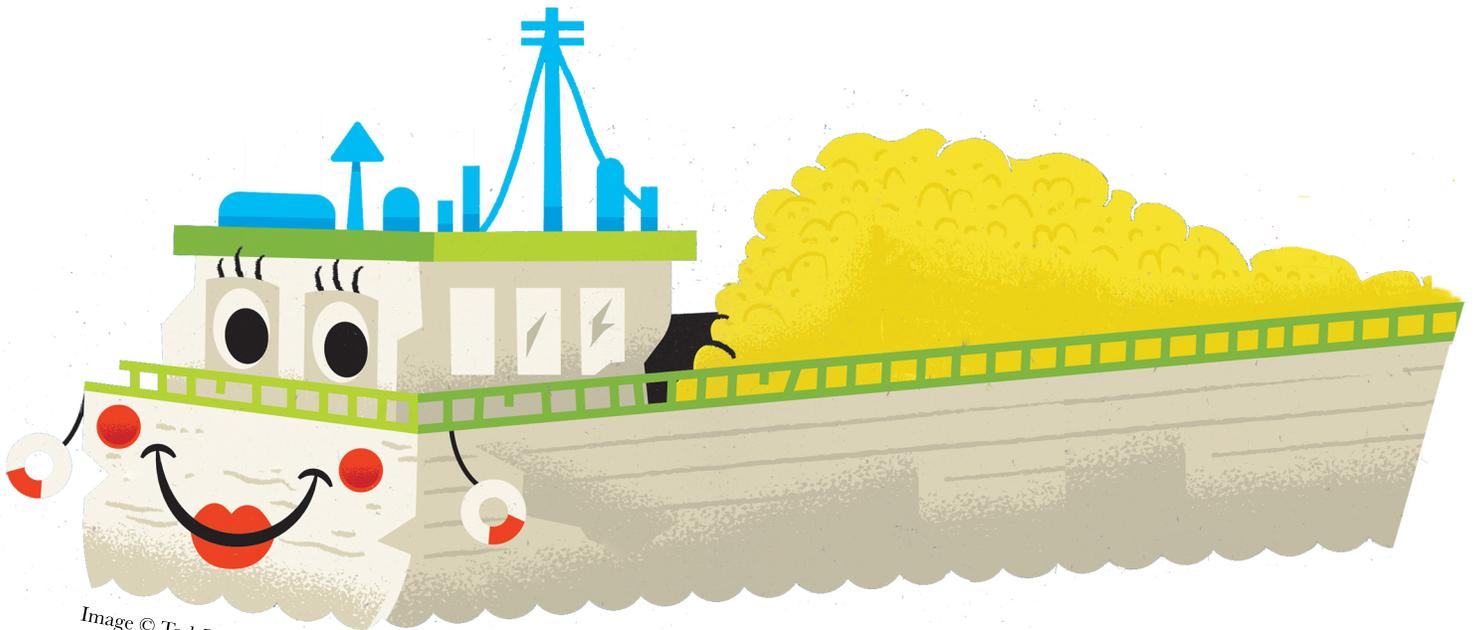
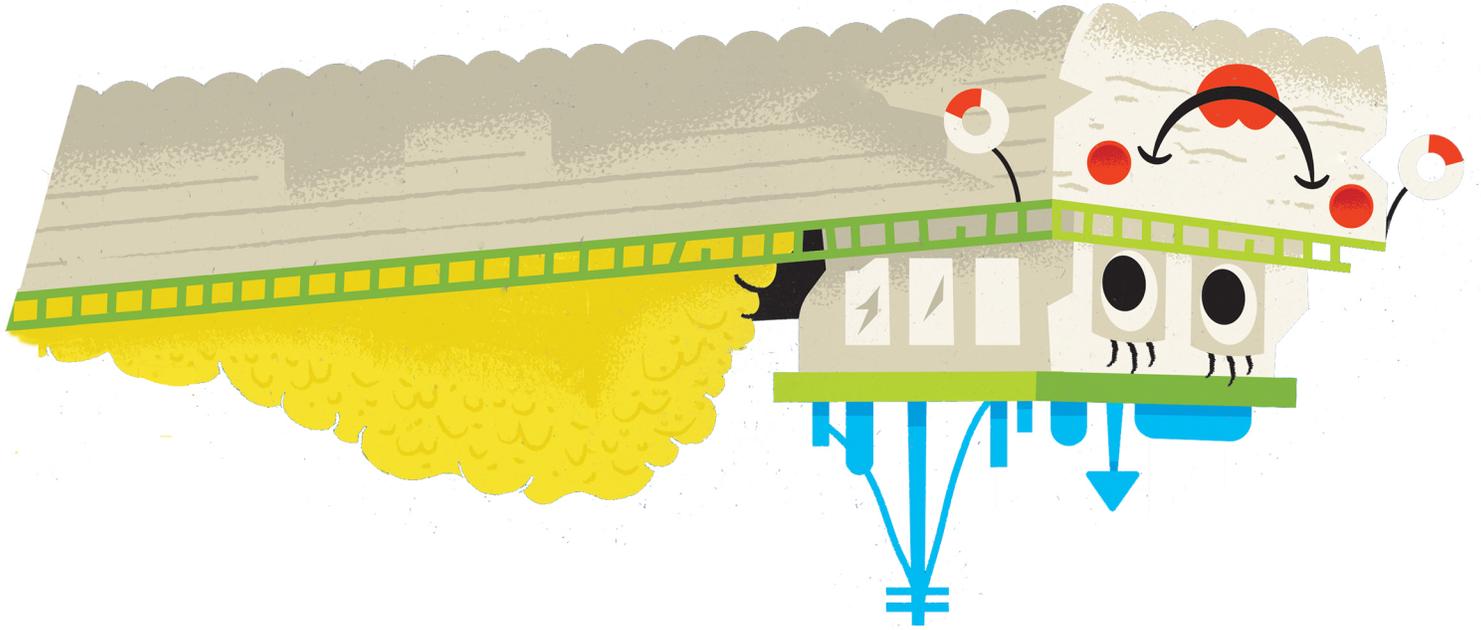


Image © Tad Carpenter

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INTERACTIVE READ ALOUD: *Sample Script*

This sample script is based on using the “You Are...” ¼ sheets from page 21 with your audience.

KEY:

Regular text is the book text.

“Bold” text is suggested dialogue beyond the book’s text.

[Bracketed text is suggested action.]

Italicized text is noises from the audience.

SCRIPT:

“This is my first time reading TUGBOAT BILL AND THE RIVER RESCUE aloud, so I am going to ask you to help me. Each of you is going to be one of the characters in the book - Bill the Tugboat, Mabel the Barge, the Kitten, or the Hudson River. Should we practice our roles?”

[Call each role out and have them act out their sound effect along with you.]

“To play Bill the Tugboat, pound your fist on your open palm. This sounds like the pounding of a tugboat engine.

To play Mabel the Barge, rub your open palms together slowly. This sounds like the broad bottom of the barge moving through the water.

To play the Hudson River, say *shh, shh, shh*. This sounds like the waters of the Hudson River passing under boats.

To play the Kitten, say *meow, meow, meow*. Perfect! I think we are all ready.”

SPREAD 1:

There is a tugboat, and his name is Bill.

Sound effect, sound effect, sound effect

“Bill is sitting on the water. Can anyone guess what body of water it is? The illustrator Tad Carpenter left some clues in the picture. I see...the Statue of Liberty and a line of skyscrapers. Where do you think Bill the Tugboat is?”

“I have a little version of the Hudson River right here. And I am going to place Bill on the water.”

[If you have made a portable Hudson River, place Bill gently on the water's surface. The less you touch him, the better. Let him float on his own.]

SPREAD 2:

Bill...

Sound effect, sound effect, sound effect
lives on the Hudson River...

Sound effect, sound effect, sound effect
The Hudson River is...

Sound effect, sound effect, sound effect
smooth

or choppy.

It is blue

or gray.

It is swift

or sluggish

depending on the day.

SPREAD 3:

Bill...

Sound effect, sound effect, sound effect
has a captain, Boris.

Boris is

silent

or humming.

He is sunny

or sour.

He is sleepy

or asleep

depending on the hour

“Hmmm....Boris the captain might need a sound effect of his own. What sound would the sleeping captain make?”

SPREAD 4:

Bill...

Sound effect, sound effect, sound effect
knows a barge, Mabel...

Sound effect, sound effect, sound effect
Mabel is...

Sound effect, sound effect, sound effect
rusty

and dusty.

She is dented
and heapy.
She's loyal
and brave
and just a bit leaky.

“I have a rusty, dusty, heapy, leaky Mabel right here and I am going to put her on the Hudson River with her friend Bill.”

[If you have made a portable Hudson River, place Mabel gently on the water's surface.]

SPREAD 5:

Every day, Bill...
Sound effect, sound effect, sound effect
booms his engines
wiggles his prow
digs his propellers into the cool, lazy water
and . . .
PUSHES.
(Or pulls.)

Every day, Mabel...
Sound effect, sound effect, sound effect
squares her shoulders
braces her hull
picks up her huge, heavy load of gravel
and . . .
DOESN'T SINK.
(Hey, you try it sometime.)

“Are you curious why Mabel does not sink? We will talk about the science of floating in little while.”

SPREAD 6:

The river...
Sound effect, sound effect, sound effect
is home to other ships, too.
They are big
and graceful.
They are fit
and prime.
They are haughty
and vain

almost all of the time.
(They think they are so great.)

SPREAD 7:

The big ships say
that Mabel is...
Sound effect, sound effect, sound effect
dirty
squat
listing
dumpy
awkward
ugly
silly
stupid
and (gasp!) boring.

“Are those ships being kind?”

Mabel...
Sound effect, sound effect, sound effect
squares her shoulders
braces her hull
and pretends she doesn't hear.
But she does.
And so does Bill...
Sound effect, sound effect, sound effect

SPREAD 8:

One
busy
breezy
sparkling
easy
swiftly
rushing
river day . . .
SPLASH!

“The poor kitten! Wait I said kitten!”

Sound effect, sound effect, sound effect

SPREAD 9:

“And the kitten says...”

Sound effect, sound effect, sound effect

“HELP!”

“I’d be scuttled and sunk before

I’d touch THAT thing,”

says one big ship.

“I’d be scuttled and sunk before

I’d let THAT on board,”

says another.

“Of all the nerve,

Asking for help,

As if we would ever,

ever,

EVER

help.”

“Are those ships being kind?”**SPREAD 10:**

“I didn’t need your help anyhow,”

says the kitten.

Sound effect, sound effect, sound effect

“Hang on!” says Mabel.

Sound effect, sound effect, sound effect

SPREAD 11:

“Throw him a rope, Mabel!”...

Sound effect, sound effect, sound effect

says Bill...

Sound effect, sound effect, sound effect

“Climb aboard, kitten,”...

Sound effect, sound effect, sound effect

says Mabel...

Sound effect, sound effect, sound effect

“Zzzz,” says Boris.

“Are Mabel and Bill being kind?”

SPREAD 12:

“Much obliged,” says the kitten...
Sound effect, sound effect, sound effect
safe and sound.

Bill...
Sound effect, sound effect, sound effect
knows that Mabel...
Sound effect, sound effect, sound effect
is a hero.
And by the next day,
the whole world knows it, too.

“And the newspaper says, ‘HERO BARGE...

Sound effect, sound effect, sound effect

SAVES CAT...

Sound effect, sound effect, sound effect

TUGBOAT...

Sound effect, sound effect, sound effect

ALSO HELPED’”

“Mabel was a hero because she was kind. Bill helped too! He was also kind.”

SPREAD 13:

The big ships aren’t happy.

“I wish I had
picked up the
kitten,”...
Sound effect, sound effect, sound effect
says one.

“I wish I was a hero like Mabel,”...
Sound effect, sound effect, sound effect
says a second.

“I wish I had a tugboat like Bill,”...
Sound effect, sound effect, sound effect
says a third big ship.

“Are the big ships jealous of Bill and Mabel?”

“Should they have helped the kitten?”

SPREAD 14:

Bill...

Sound effect, sound effect, sound effect
and Mabel...

Sound effect, sound effect, sound effect
pay them no mind.

They go up and down the
smooth

choppy

blue

gray

swift

and sluggish

Hudson River.

Sound effect, sound effect, sound effect
And the kitten...

Sound effect, sound effect, sound effect
goes with them.

SPREAD 15:

And if you go down to the river...

Sound effect, sound effect, sound effect
on a breezy, easy day,

here is what you might see:

A kitten,...

Sound effect, sound effect, sound effect
standing on the prow of

A barge,...

Sound effect, sound effect, sound effect
pushed steady through the water...

Sound effect, sound effect, sound effect
by a tugboat...

Sound effect, sound effect, sound effect
whose captain is

sound

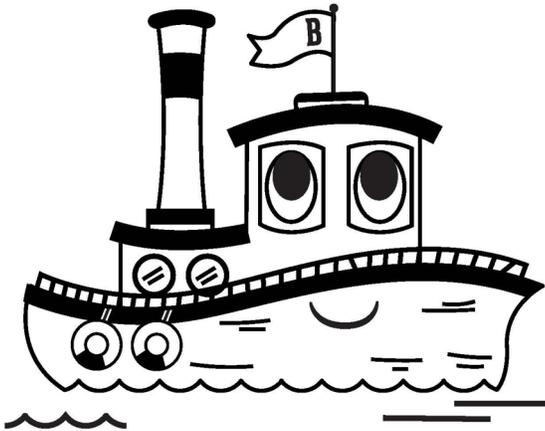
asleep.

“And what sound does that captain make?”

You are Bill the Tugboat!

During the reading, listen for the words “Bill” and “tugboat.” When you hear them, can you make the sound that Bill the Tugboat makes?

Hit your open palm with your fist a few times to make the pounding sound of a tugboat engine.

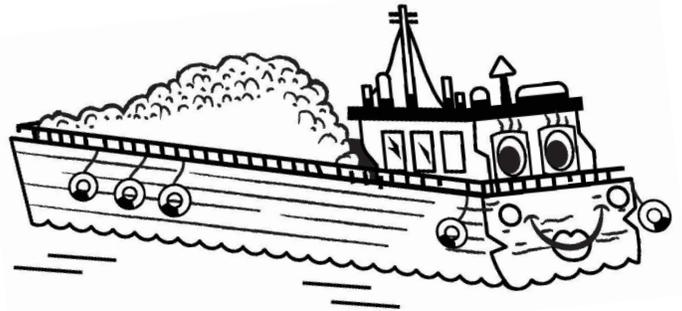


From *Bill the Tugboat and the River Rescue* by Calista Brill and illustrated by Tad Carpenter (HARPER). Image ©Tad Carpenter.

You are Mabel the Barge!

During the reading, listen for the words “Mabel” and “barge.” When you hear them, can you make the sound that Mabel the Barge makes?

Slowly rub your open palms together a few times to make the sound of Mabel’s broad hull moving through the water.



From *Bill the Tugboat and the River Rescue* by Calista Brill and illustrated by Tad Carpenter (HARPER). Image ©Tad Carpenter.

You are the kitten!

During the reading, listen for the word “kitten.” When you hear it, can you make the sound that a kitten makes?

Say, “Meow!” a few times to let everyone know that the kitten has appeared in the story.

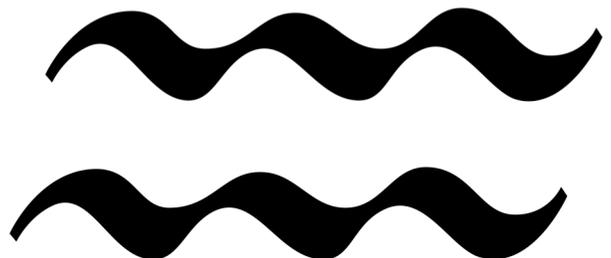


From *Bill the Tugboat and the River Rescue* by Calista Brill and illustrated by Tad Carpenter (HARPER). Image ©Tad Carpenter.

You are the Hudson River!

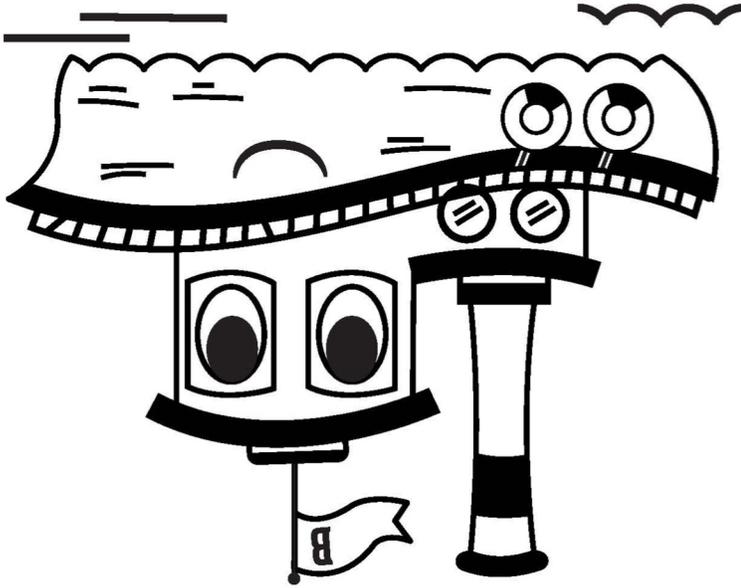
During the reading, listen for the words “Hudson River” and “water.” When you hear them, can you make the sound the river makes?

Say, “Shhhh...” a few times to make the hushing sound of the river moving under the ships.



From *Bill the Tugboat and the River Rescue* by Calista Brill and illustrated by Tad Carpenter (HARPER).

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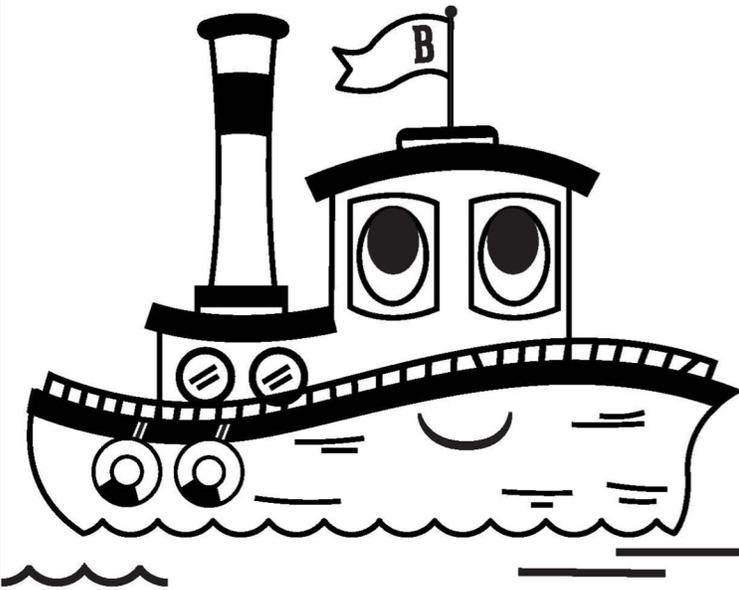
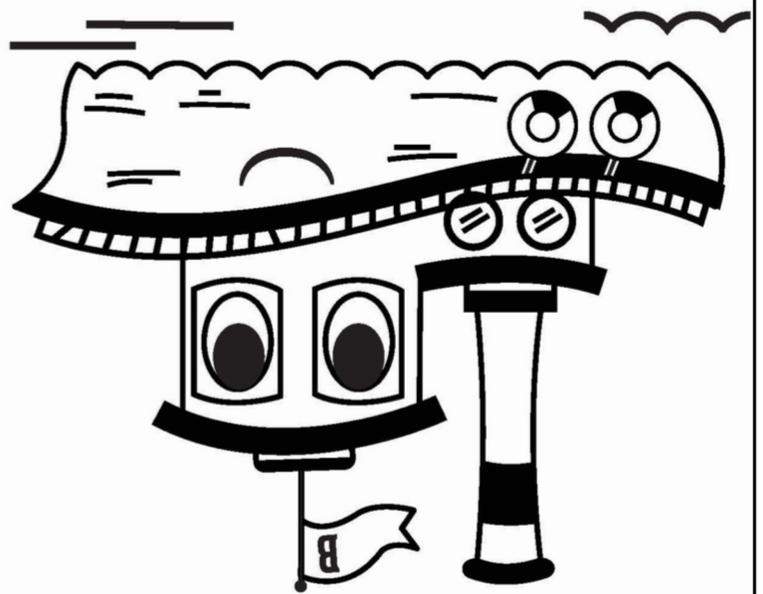


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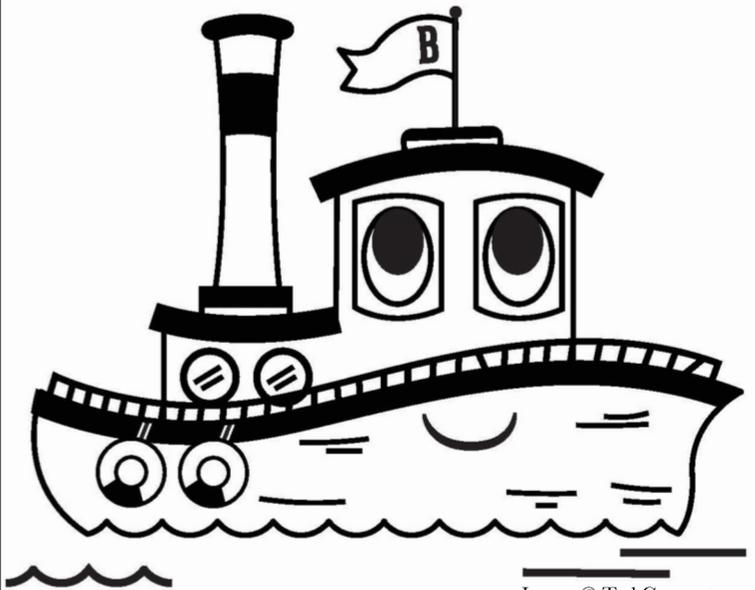


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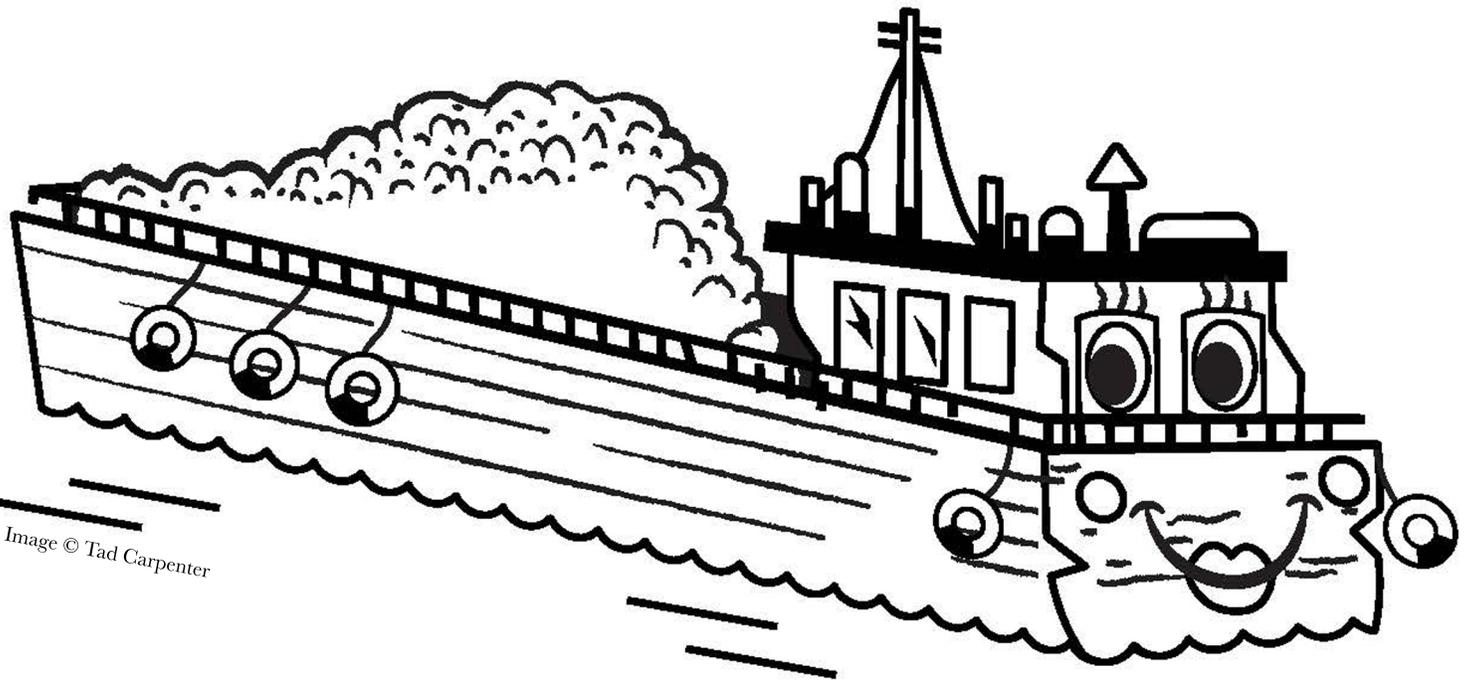
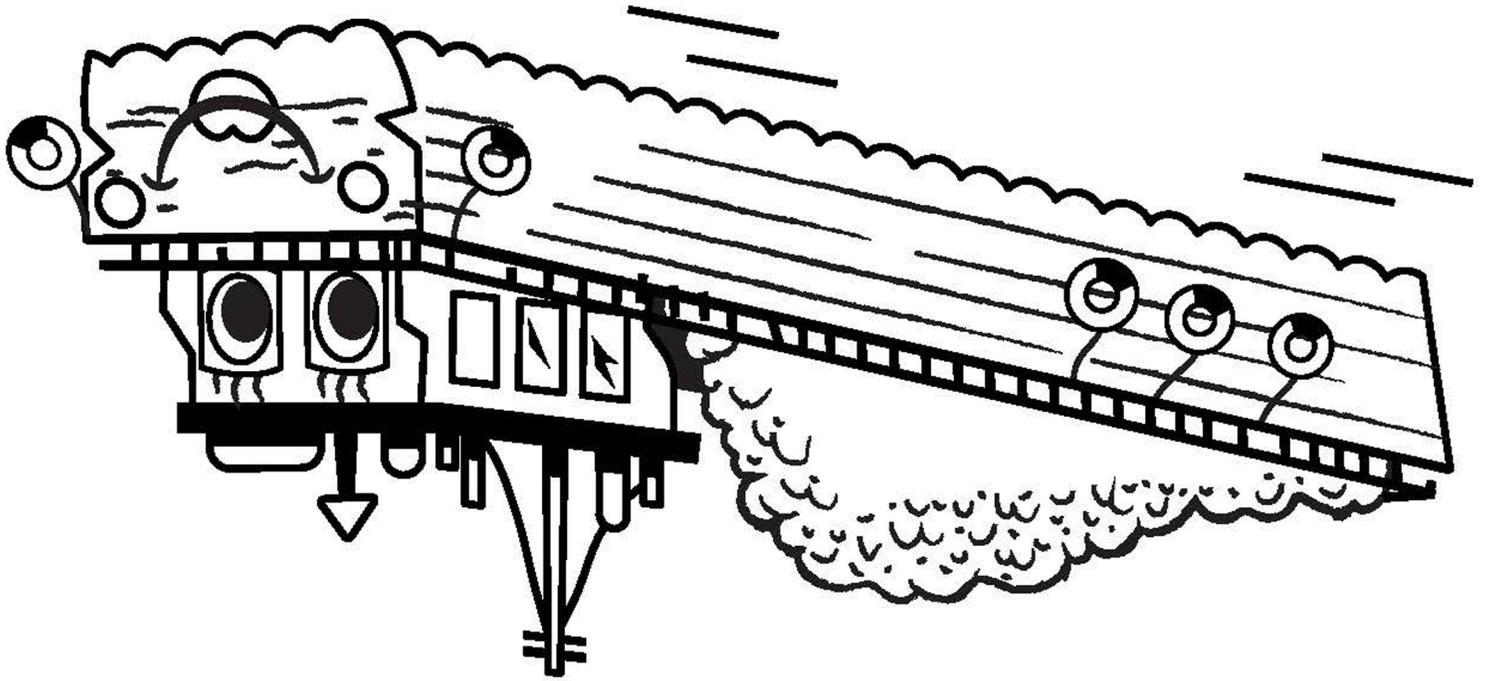
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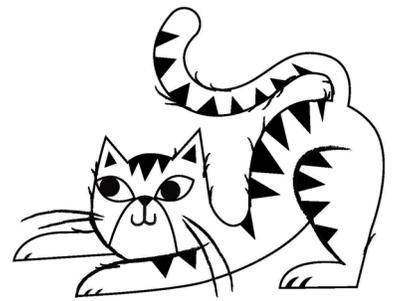
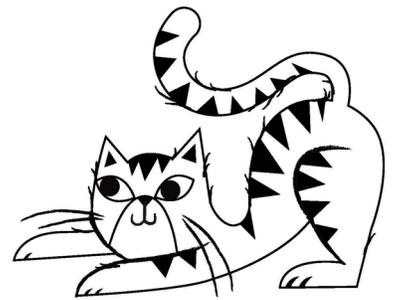
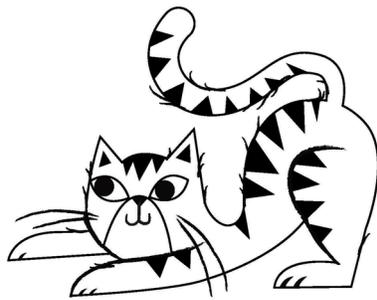
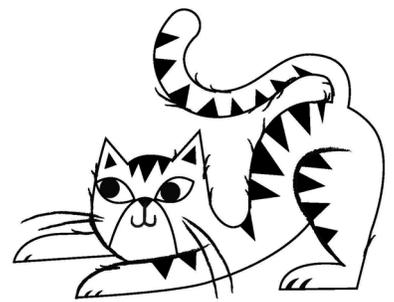
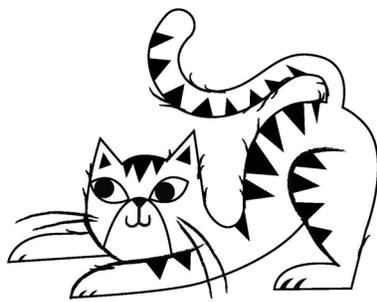
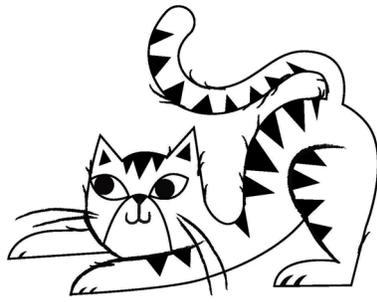
Chug on over to your local bookstore or library to read
TUGBOAT BILL AND THE RIVER RESCUE
by Calista Brill and illustrated by Tad Carpenter (HARPER).
Did your Mabel sink? Find PDFs to print at calistabrill.com.



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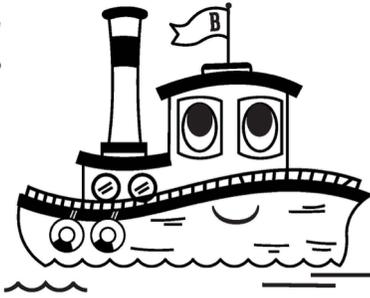
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Image © Tad Carpenter



Float Your BOAT!

STEM
Demonstration
for Bath Time
or Water Play



Readers of the picture book **Bill the Tugboat and the River Rescue** might become curious about boats. Why, for example, do boats float?

Why things float has a lot to do with their density. That seems like a complicated thing to explain to a child, but here's a simple demonstration for bath time or sink or water table play. It's never too soon to have conversations with a child about Science, Technology, Engineering, or Math a.k.a. STEM! **Suggested dialogue is in bold.**

1. Grab a 12" x 12" piece of aluminum foil.
2. Once the tub, sink, or water table has at least 4 inches of water, start the conversation!

I have been wondering why boats like Bill the tugboat and Mabel the barge can float on water. I thought we'd make a boat and find out. What do you think? Should we make a boat?

3. Fold the aluminum foil sheet in four. Smooth it out as you go. Talk about what you are doing as you do it!
4. Fold all four sides up until it forms a square-bottomed boat.

Does that look a little like Mabel the barge? Do you want to put her in the water and see if she floats?

5. Float the boat on the water.

One of the reasons our boat floats is because it is not very dense. What does dense mean? I'll show you!

6. Pull the boat out and show it to your child.

See how the boat is wide and flat and the walls are thin? All these things (wide, flat, and thin) make the boat not very dense.

What does dense look like? I'll show you!

7. Smooth down the boat's sides. Fold the foil square again and again until you end up with a roughly one-inch square. Push firmly on the square with every fold to get the air out.

This is the same boat, but I just changed its density. I have made all the parts of the boat closer together. It is now more dense.

Will it still float? Try it.

8. The square should sink!

When our boat was wide, flat, and thin, it had lots of air surrounded it and it was less dense than water. When it was less dense than water, it floated!

When we folded that boat down into a small square, we took away a lot of the air. Now it is MORE dense than the water. And what happened? Yes, it sank!

You have just explained a very complicated scientific principle to a child! Congratulations!

Your librarian can recommend books that offer other opportunities to explore STEM.

If you want to float Bill the tugboat and Mabel the barge from **Bill the Tugboat and the River Rescue** during bath time or sink or water table play, visit CuriousCityDPW.com and search for "tugboat" in the top right corner. Navigate to the Story Hour Kit and look for templates for these bookish boats.

