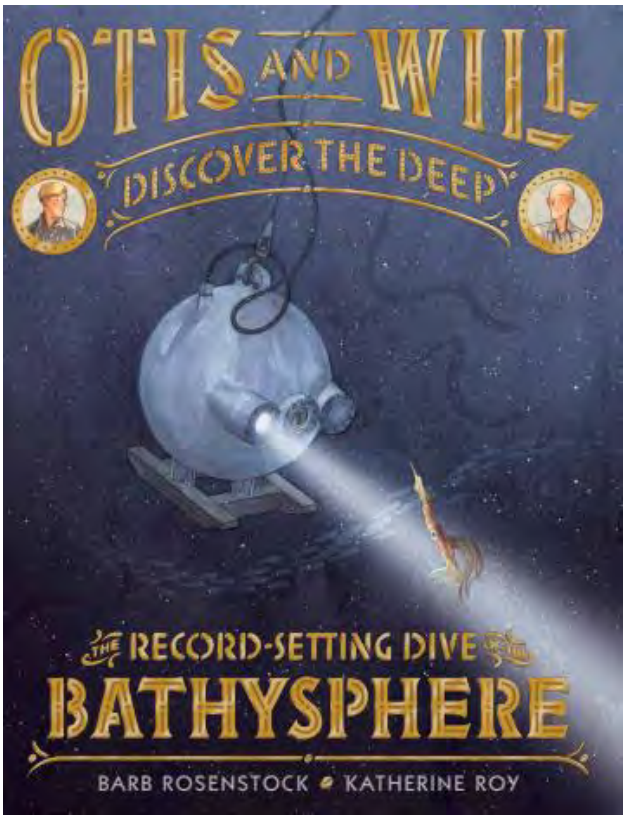



- **Age Range:** 4 - 8 years
- **Grade Level:** Preschool - 3
- **Hardcover:** 48 pages
- **Publisher:** Little, Brown Books for Young Readers
- **ISBN-13:** 978-0316393829

**Common Core Standards Correlations**
http://www.corestandards.org/ELA-Literacy/

**Key Ideas and Details:**
CCSS.ELA-LITERACY.RL.2.1 - Ask and answer such questions as *who, what, where, when, why*, and *how* to demonstrate understanding of key details in a text.
CCSS.ELA-LITERACY.RL.2.3 - Describe how characters in a story respond to major events and challenges.
**Craft and Structure:**
CCSS.ELA-LITERACY.RL.2.5 - Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
**Integration of Knowledge and Ideas:**
CCSS.ELA-LITERACY.RL.2.7 - Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

About the Book

On June 6, 1930, engineer Otis Barton and explorer Will Beebe dove into the ocean inside a hollow metal ball of their own invention called the Bathysphere.

They knew dozens of things might go wrong. A tiny leak could shoot pressurized water straight through the men like bullets! A single spark could cause their oxygen tanks to explode! No one had ever dived lower than a few hundred feet...and come back. But Otis and Will were determine to become the first people so see what the deep ocean looks like.

This suspenseful story from acclaimed author Barb Rosenstock with mesmerizing watercolors by award-winning artist Katherine Roy will put you right in the middle of the spine-tingling, record-setting journey down, down into the deep.

## About the Author

**Barb Rosenstock** is the author of the Caldecott Honor Book *The Noisy Paint Box, Thomas Jefferson Builds a Library, The Camping Trip that Changed America,* and several others that have received numerous accolades and starred reviews. She lives in Illinois with her husband, sons, and two big poodles.

## About the Illustrator

**Katherine Roy** is the author and illustrator *of How to Be an Elephant* and *Neighborhood Sharks*, a Sibert Honor Book. She is also the illustrator of the Expeditioners series and of *Buried Beneath Us*. She lives in Oregon with her husband and son.

## Intermediate Levels – Third and Fourth Grades

## Vocabulary

Aquanaut – deep water voyager
Bathysphere – sphere of the deep
Contraption – gadget or device
Microscopic – very small, tiny
Organism – a form of life considered an entity
Plankton – drifting organisms in water, usually algae
Sightline – uninterrupted line of vision
Suffocate – to die by preventing the access to air
Watertight – constructed or fitted so tightly as to be impervious to water

## Research

On the front endpapers *of Otis and Will Discover the Deep: the Record-setting Dive of the Bathysphere* you'll find the marine life that they might have seen up to 300 feet and on the back end papers you'll find the type of marine life you might find between 400 to 800 feet.

Have the student pick a marine animal to research. There many are amazing books for this kind of research, one is *Way to Glow! Amazing Creatures That Light Up in the Dark*. The book actually has pages that glow in the dark!
In keeping with many state's adopted standards for second grade of studying Habitats, research on the Ocean Habitat would be in alignment.

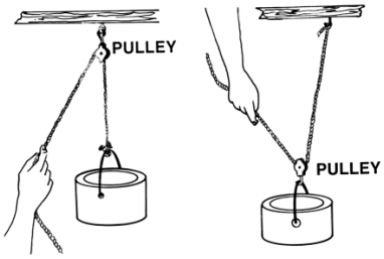
Other fun resources for Ocean Science and crafts:
*Underwater Machines* by Gerry Bailey, published by Mercury Books, 2003
*Awesome Ocean Science* by Cindy A. Littlefield, published by Williamson books, 2003

## Math and Science

**Water pressure** doubles for each 33 feet or 10 meters travelled down, down, down into the depths. Make a pressure chart for Otis and Will to mark the 100 to 800 level markers. This is usually marked as 1 atmosphere. So at just 100 feet we would be at 3 atmospheres.

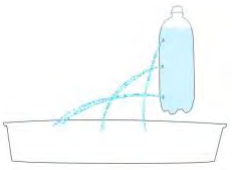
**Measure** out the space in your classroom for the Bathysphere, 4.5 feet with a 14 inch wide hole to get in and 2 eight inch portholes to see out.

Have your class study **Simple Machines**. Go back to the book and see if you can find any of these machines mentioned or referred to in any way. Discuss and build some of them.




## Experimenting

Take a 2 liter bottle and make 4 holes in the side with a pushpin. Cover the holes with masking tape and fill the bottle up. Remove the tape (be sure you're in a place for the water to leak out). Watch and record which hole has the strongest squirt. Which is the weakest?
Discuss with the students about why the pressure is greater at the bottom than from the top.
Source: Science Friday



## Geography

Off the coast of Bermuda on June 6, 1930 was Otis and Will's first dive together to 803 ft. Show the students the world map and locate where your city is and then pinpoint where Bermuda is. How far is Bermuda from your city?
What is the climate of Bermuda? Compare that to the climate where you live. Discuss the kind of ocean life that Otis and Will saw on their descent into the water off of Bermuda. What are islands like?

Now find another place on the map – say Japan and find out what kind of sea creatures live off that island. With study about a different place in the world and compare what it would be like to explore the ocean say off the coast of Alaska. There will be contrast and comparison of habitats, animals, and living conditions for people also.

You can see the red dot is Bermuda on the globe.
Source: Wikiamedia Commons

## Deeper Connections

Discuss with students about the difficulty of this trip for Otis and Will. What kinds of feelings and fears might Otis and Will faced during this exploration? Transition your discussion into a time that the students may have had a difficult task. Remind the students about the sparks from the searchlight cord and how quickly they had to act. In the student's example have them think of who they dealt with, where this happened and how was the problem resolved.

## Primary Levels – First and Second Grades

### Geometry – 3D Shapes

Make a chart and have students make their own of 3D shapes that includes three pieces.

**Name:** Cone

**What we see:** circle base, lines connecting in a curve, a point at the top

**Examples – looks like:** ice cream cone, party hat, traffic cone (have the kids draw)

Continue with cube, cylinder, sphere, pyramid, and rectangle prism (idea adapted from: https://www.dgoodz.com/products/3-d-shapes-anchor-chart-231604 )


Source: Wikiamedia Commons

Explore with your students why the Bathysphere was a sphere – 'the perfect shape for withstanding pressure of the water in the deep ocean.' Why is the sphere argued to be the strongest shape? What was its nickname?

### Art - Painting with Salt Resist

**Materials Needed**

Watercolor paper - Kosher Salt - Liquid Watercolor (I like Sargent's Magic Liquid)
Masking Tape - Cardboard or a board – Brushes - Paint trays - Plastic dish - Water
Papers for collaging (rice papers, old magazines, etc.) - Paper towels

**Procedure**

Use masking tape to tape watercolor paper down to cardboard or board, all the way around.

After painting your background ocean with the liquid watercolor paint, take a handful of Kosher salt and drop it on the paint. (See picture A)

This will need to dry completely. While the paint is drying, go through your magazines and other papers to find colors and shapes you like to cut out your seaweed and marine animals.

After the paint is dry, brush off the salt into a trash can and glue your collage cut-out marine life onto the painting. (Picture B) Paintings Source: Dianna Burt


A


B

# Early Literacy Levels – Preschool and Kindergarten Grades

## These are the Early Literacy Practices

Learning to read begins at birth. Parents, caregivers, teachers and librarians can reinforce and help grow brain connections through the five practices that will help a child develop the foundation for reading.

**Talk** about what it would be like to go deep into the ocean. How would you feel? What would you see? Look at the sea creatures on the end pages and talk about the difference from the front end papers and the back end papers.

**Sing**

(tune of *Row, Row, Row Your Boat*)

Down, Down In the Sea
Down, down in the sea, to the deep dark depths,
Bioluminescence are the sights we see.
Moon jellies, Copepods, and Pilot fish galore,
Shrimp, squid, Lanternfish, and so much more.

Before you **Read** the story, talk with the students about what they want to do when they grow up. Otis knew early that he wanted to explore the ocean and Will explored many kinds of nature before he that he wanted to explore the ocean.

**Write** and draw about one of the ocean creatures depicted on the end papers or one of the student's choosing.

**Play**ing with ocean animals will engage your students. You can do this with puppets, plastic toys, applying the amazing crafts found on Pinterest or finding other story books on ocean animals to use for fun

## These are the Early Literacy Skills

Early literacy is everything a child knows about reading and writing before he or she can read or write.

**Narrative Skills** help students become the teller of the story. Props help this happen. Take a Styrofoam ball and have your students make their own bathysphere. They could make it look like Otis and Will's or design one of their own.

**Letter Knowledge** is finding out the names and sounds of letters. When they begin to identify those letters in their names first and then find those letters in other things – signs, books, package labels, etc, it helps them begin to learn those letters. Help your students identify words in *Otis and Will Discover the Deep* and write them down.

**Print Awareness** is learning about books and figuring out what are words and what are pictures. Show the end papers and pointing out that the words go with the pictures.

**Vocabulary** is learning the names of things and studying the end papers will help your students find out the names of some great marine life.

**Print Motivation** – Using fun, interesting books that engage your student's interest and imagination is the best way to promote reading. Using *Otis and Will Discover the Deep* is a fascinating way to investigate a part of the world that is mostly undiscovered.

**Phonological Awareness** is using rhyming and rhythm to help children play with the smaller sounds in words. Take Will and then have the students think of words that rhyme with his name – pill, bill, fill, etc. Just have fun with it. It gets exciting when you start making up words and start being silly!