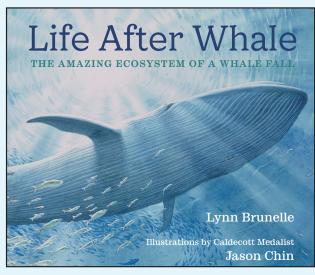
# HOLIDAY HOUSE | LESSON PLAN



**Neal Porter Books** HC: 9780823452286 · eBook: 9780823459254

### Life After Whale: The Amazing Ecosystem of a Whale Fall by Lynn Brunelle illustrated by Jason Chin

#### **EIGHT STARRED REVIEWS!**

- ★"[An] amazing picture book."—Booklist
- ★"Intriguing."—BookPage
- ★"Magnificent."—Publishers Weekly
- ★"Engaging."—The Horn Book
- ★"Grand and engrossing."—Kirkus Reviews
- ★"Honest, informed, and enthusiastic."—The Bulletin
- ★"Exquisite."—Shelf Awareness
- ★"An excellent addition to any elementary library collection." —School Library Journal

#### ABOUT THE BOOK

Follow a blue whale's enormous body to the bottom of the ocean, where it sets the stage for a bustling new ecosystem to flourish.

#### **NEXT GENERATION SCIENCE STANDARDS**

- 2-LS2-1 Ecosystems: Interactions, Energy, and Dynamics
- 3-LS4-4 Biological Evolution: Unity and Diversity

#### **BEFORE READING**

### Essential Questions Building Background Knowledge

- How big is a blue whale?
- What do blue whales eat?
- What is a food chain? Food web?
- What is an ecosystem?
- What are some things that are important for forming and maintaining an ecosystem?
- What happens to wild animals when they die? How is this important to ecosystems?
- What is life like at the bottom of the sea? What do the creatures who live there eat?
- How can a whale's body falling to the bottom of the sea change that ecosystem?
- What is a whale fall?

#### **DURING READING**

- What is the main idea of this book? Where does it take place?
- What does the author mean when she says the death of a whale is the end of one story, but the beginning of another?
- How does this book illustrate the "circle of life"?
- What are the stages of a whale fall? How does one stage lead into the next?
- What is a bone-eating zombie worm? How is it important?
- Why do you think whale falls are a recent discovery? How can scientists study them?





## HOLIDAY HOUSE | LESSON PLAN

#### **WORD WORK**

Have students cut apart the word cards and sort them by vowel patterns. Students can add their own words on blank cards.

Marine snow	Opportunist	Diversity
Scavenger	Sulfophilic	Nutrients

#### **AFTER READING**

#### Research and Activities

- Brainstorm ways to show how big an actual whale is. What tools can you use? How would you demonstrate this?
- Use string and have a partner unwind the string to see the actual size.
- Use chalk to draw a whale on the sidewalk or playground. How many classmates can you fit inside?
- Using only the length of the class's arm spans, can you figure out how many kids—fingertip to fingertip will equal a blue whale?
- Measure everyone's arm span
- What is the average arm span?
- How many kids do you estimate will be as long as a blue whale?
- How do blue whales eat? Create a demonstration/experiment using a bucket, water, comb, and small items such as raisins, cereal, and LEGO pieces.
- What do you eat in a day? Make notes about everything you eat in a day. Where does your food come from? How do humans fit into an ecosystem?
- Make a timeline of a whale fall and create lists of organisms that fall into the stages. What animals are the first to arrive? What do they eat?
- Create trading cards with creatures from a whale fall. Make a drawing on one side and then research the animal to create "stats" on the other side.
- Create a piece of art. Use drawing or collage or even words to show the journey of a blue whale from life through death, whale fall, and back up to new generations.
- What are ocean zones? What makes them different from one another? What kinds of creatures live in different zones? Why?
- Make a model of the ocean zones.
  - In the book we see that the whale's body sinks through several areas or zones of ocean water with different levels of sunlight. There are organisms that live in each of the ocean zones, but most of them are in the sunlight zone. What creatures might live in each layer? What might each layer look like and why?



# HOLIDAY HOUSE | LESSON PLAN

#### What you need:

- 1. Food coloring
- 2. 1 cup corn syrup
- 3. 1 cup dish soap
- 4. 1 cup water
- 5. 1 cup cooking oil
- 6. 1 cup rubbing alcohol
- 7. Large clear jar (or a 2L clear plastic bottle with the top cut off, using the upside-down top as a funnel)
- 8. Funnel

#### What you do:

With the help of an adult, carefully pour the liquids into the jar in the following order:

- 1. 1 cup corn syrup
- 2. 1 cup dish soap
- 3. 1 cup water
- 4. 1 cup cooking oil
- 5. 1 cup rubbing alcohol

#### What's going on?

Just like the water in the ocean, there are different densities created by temperature, pressure, and salt content that keep layers separate.

These five layers represent the different ocean depth zones from top to bottom:

- 1. Sunlight Zone: Rubbing alcohol
- 2. Twilight Zone: Cooking oil
- 3. Midnight Zone: Water
- 4. Abyss Zone: Dish soap
- 5. Trench Zone (the deepest and darkest—sunlight never reaches here): Corn syrup

#### ABOUT THE AUTHOR



Lynn Brunelle is a four-time Emmy Award-winning writer for Bill Nye the Science Guy, the author of the bestselling books Pop Bottle Science and Camp Out!, among many other titles, and a former K-12 teacher. Her memoir Mama Gone Geek won the Independent Publisher Book Award Gold Medal, and her book Turn This Book into a Beehive! received the Parents' Choice Award Gold Medal. Her most recent picture book, Life After Whale, received eight starred reviews. A trusted science communicator, she has been featured on numerous television and radio shows, contributed to magazines and podcasts, given a TED Talk, and spoken at the UN about girls and STEM education. Learn more at LynnBrunelle.com.

#### ABOUT THE ILLUSTRATOR



Jason Chin is a celebrated author and illustrator of children's books. He received the Caldecott Medal for his illustrations in Andrea Wang's Watercress, a Newbery Honor book and APALA Award winner. His book Grand Canyon was awarded a Caldecott Honor, a Sibert Honor, and the NCTE Orbis Pictus Award. His other acclaimed nonfiction titles, including Coral Reefs, Redwoods, Gravity, Island: A Story of the Galápagos, Your Place in the Universe, The Universe in You, and Life After Whale, have received numerous starred reviews and other accolades. He lives in Vermont with his wife and children. Learn more @AuthorJasonChin on Instagram.