ABRAMS BOOKS FOR YOUNG READERS TEACHING GUIDE



INTRODUCTION

Sue Hendrickson was born to find things, large or small. As a child, her curiosity led her to find many treasures, from lost coins to a tiny brass perfume bottle. And as she grew, her curiosity grew, too. She became a diver who searched for lost boats and buried treasure and a paleontologist who searched for prehistoric-whale fossils.

On a dig in South Dakota, Sue discovered something bigger than she had ever imagined: the most complete Tyranno-saurus rex skeleton ever unearthed, a skeleton named Sue in her honor. Full of scientific intuition and true adventure, When Sue Found Sue will inspire young readers to look closely at the world around them and to nurture their curious spirits.

SKILLS REINFORCED

+ Observation + Description + Compare and contrast + Size and scale

THEMES

+ Careers + Dinosaurs + Paleontology + Discovery + Women Scientists

PRE-READING IDEAS

Words, Words, Words

Provide the following list of vocabulary words and discuss their meanings. Ask students in grades 2+ to work in pairs to look up the definitions in a print or online dictionary.

trinket	outsider	blistering (adjective)	sweltering
prehistoric	launch (verb)	sandstone	dispute
dinosaur	amber	prairie	auction
mission	extinct	towering (verb)	preserve (verb)
brass	fossil	backbone	

curiosity trace (noun) protruding

What Is a Paleontologist?

Explore answers to the question: What is a paleontologist? Consider reading and discussing:

- Dinosaur Detectives by Peter Chrisp (DK Children, 2012)
- I'll Be a Paleontologist by Connie Colwell Miller (Amicus, 2016)
- You Can Be a Paleontologist by Scott D. Sampson (National Geographic Children's Books, 2017)

Consider watching and discussing the video "Dig into Paleontology" on <u>KidzSearch.com</u>.

Grades K-2 Ask students to recall information in order to answer the question.

Grade 3+ Ask students to take notes as you read/view the sources above. Then sort notes into categories before discussing the answer to the question.

QUESTIONS TO CHECK COMPREHENSION

- 1. What was Sue Hendrickson's one key trait from childhood forward that led her to discover Sue the T. rex?
- 2. Why do you think the fact that Sue Hendrickson was a shy child was important to this story?
- 3. What are the two important things you read about Sue Hendrickson and The Field Museum of Natural History?
- 4. What are some of the things that Sue searched for—and found—before she started searching for dinosaur fossils?
- 5. What tools do paleontologists use to free dinosaur bones once they find them?
- 6. How did Sue and her dog Gypsy happen to be the only ones who discovered the T. rex skeleton?
- 7. How did Sue know that the bones protruding from the cliff had to be T. rex bones?

LANGUAGE ARTS CONNECTIONS

Days of Discovery

During the summer of 1990, Sue Hendrickson was on a team of field paleontologists digging for duck-billed dinosaur fossils. Ask students to think about what a field paleontologist must do every day on a dig. Refer to the text of When Sue Found Sue for answers and launch a discussion of students' ideas. Once students feel well-grounded in the work of paleontologists, invite them to write several journal entries as though they were field paleontologists on Sue's team. Allow Kindergarten students to use a combination of drawing, dictating, and writing for this activity.

Sue Had What It Takes

The author of When Sue Found Sue worked hard to reveal to her young readers Sue Hendrickson's personality traits that led to her being a successful field scientist and explorer. After reading the book aloud, engage students in a discussion of these traits, from those she exhibited in childhood such as shyness and curiosity to those necessary to work successfully in her field. Ask students to defend the accuracy of traits they suggest using either the text or the illustrations in the book as evidence. [Note: Be sure to read the Author's Note aloud to students to help them to gain further insight into Sue Hendrickson.]

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LANGUAGE ARTS CONNECTIONS continued

Enlarge one of the illustrations of Sue from the section of the book where she discovers Sue the T. rex, and post it in your group instructional area. As the conversation about Sue's traits unfolds, attach an index card with each trait that is successfully defended by the students who propose it. When the activity is complete, summarize the traits that made Sue successful.

Celebrating Women Scientists

Toni Buzzeo is the author of another picture book biography of a woman scientist, A Passion for Elephants: The Real Life Adventure of Field Scientist Cynthia Moss (Dial, 2015). After reading When Sue Found Sue, read A Passion for Elephants aloud to your students and ask them to identify the similarities and differences between Sue Hendrickson and Cynthia Moss with these questions:

- · What characteristics do Sue and Cynthia have in common?
- · How are their life experiences similar and/or different?
- + How did each scientist learn what she needed to know to do her job?
- + How has each scientist's career changed over her lifetime?
- + What is each scientist's greatest passion?

LANGUAGE ARTS AND SCIENCE CONNECTIONS

On a Mission to Find Things

After reading and discussing When Sue Found Sue, invite students to join you on a walk—around the school yard, the playground, or the neighborhood. Ask students to pretend that they are exactly like Sue, walking "head down . . . on a mission to find things." [Note: If you are relatively certain that the findings where you are walking will be slim, you might want to litter the path with some "treasures" for the finding. If you do so, it may be wise to limit each student to a single treasure.]

When you return to the classroom, provide magnifying glasses and invite students to look closely at their treasures, whether natural findings such as rocks or plants, or man-made treasures. Have them create a list of the characteristics of these treasures, using the **On a Mission to Find Things** graphic organizer on the next page. Then, ask each child to draw a picture of his or her treasure on the same sheet. Display copies of the illustrations on a bulletin board or display wall mimicking Diana Sudyka's first page illustration of Sue Hendrickson's many found objects.

ON A MISSION TO FIND THINGS



SCIENCE CONNECTIONS

DUCK-BILLED VS T. REX

For four summers, Sue Hendrickson and her team dug for duck-billed dinosaur fossils in the hills of western South Dakota. While they found many, these hadrosaurs are not what Sue is known for finding. Instead, on a hunch, an inspiration, a mysterious calling, Sue and her dog Gypsy hiked for four hours over seven miles of rugged territory to the cliff where Sue found her T. rex.

With students, investigate the similarities and differences between EDMONTOSAURUS (one of the duck-billed dinosaurs found in western South Dakota) and TYRANNOSAURUS REX. You may want to ask your school librarian for print sources in the library or reference the website kidzsearch.com.

Consider comparing on these traits:

- + size
- + teeth
- geologic era

- + diet
- + movement
- world location
- + bones (two or four legs)

Once students have a strong understanding of the similarities and differences between the two dinosaurs, invite them individually, in pairs, in small groups, or as a class to complete the **Duck-Billed vs. T. Rex** Venn diagram organizer on the next page.

NOTE: A fun way to either extend or introduce this comparison activity is to share one or more titles in the Lightning Bolt Books Dinosaur Look-Alike series by Buffy Silverman (Lerner, 2013):

- · Can You Tell a Stegosaurus from an Ankylosaurus?
- Can You Tell a Giganotosaurus from a Spinosaurus?
- · Can You Tell a Triceratops from a Protoceratops?
- · Can You Tell a Velociraptor from a Deinonychus?



DUCK-BILLED VS. T. REX

EDMONTOSAURUS	TYRANNOSAURUS REX	
size:		
diet:		
bones:		
teeth:		
two or four legs:		
geologic era:		
world location:		





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COMPARING HUMAN AND DINOSAUR SKELETONS

Humans and dinosaurs look different on the outside, but they share almost all of the same bones. Learn more about this similarity between human and dinosaur skeletons by reading *Fossil by Fossil: Comparing Dinosaur Bones* by Sara Levine (Millbrook Press, 2018).

After reading Fossil by Fossil, discuss human skeletal anatomy. Two excellent human skeleton images (one labeled and one not) are available at Early Learning HQ's website: http://www.earlylearninghq.org.uk/latest-resources/human-skeleton-diagram-labelling-sheets. Cut and paste these skeleton images into a blank document.

Play a large-group game of Simon Says to teach students the names and locations of the human bones pictured.

Next share and study the labeled T. rex skeleton image from Sauropod Vertebra Picture of the Week: https://svpow.files.wordpress.com/2011/09/osborn1906-tyrannosaurus-redux-plate-xxxix-annotated.jpeg. An unlabeled T. rex skeletal image is available from the Smithsonian: https://www.si.edu/newsdesk/photos/nations-t-rex-skeleton.

Use either the labeled T. rex skeleton image or the unlabeled image, depending on the developmental age of your students. Call out the name of a human bone and challenge students to identify its corresponding location on the dinosaur skeleton image.

[Note: The labeled images have more detail than your beginning learners will need. Focus their learning on the following bones on both the dinosaur and the human: skull, ribs, vertebrae, femur, tibia, humerus, and phalanges].

PRESERVED IN AMBER

Before Sue Hendrickson began hunting for dinosaur bones, she was passionate about insects encased in amber. In the remote mountains of the Dominican Republic, she became fascinated by them and, after briefly trying her own hand at mining, she began to buy thousands of pieces of amber from miners there. In those thousands of pieces of amber, Sue discovered three of only six butterflies encased in amber ever found.

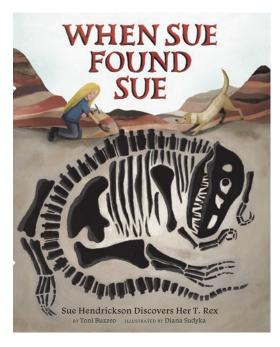
Share Kiddle Encyclopedia's "Amber Facts for Kids" article with students: https://kids.kiddle.co/Amber. Invite them to study the photographs. [Note: Paraphrase the article for students in grades K-1.]

Then invite students to join you in creating edible butterflies in amber as described in this online teaching activity from Education.com: https://www.education.com/activity/article/edible-amber-fossils. [Note: Mini Gummi Butterflies are available by the pound online for this project.]

WHEN SUE FOUND SUE

SUE HENDRICKSON DISCOVERS HER T. REX

By Toni Buzzeo • Illustrated by Diana Sudyka



ISBN 978-1-4197-3163-1

Ages 4-8

PRAISE

★ "Buzzeo's considerable storytelling skills zero in on fascinating details, such as the experience of unearthing fossils, while Sudyka's entrancing illustrations reflect this attention to detail and the passion Sue brought to her work. Additionally, it's refreshing to see a profile of a modern, female scientist, who is respected in her field." —Booklist

"An exciting tale of dino discovery."

—Kirkus Reviews

"Rewards passions for learning and passes those values on to its readers. A must-have." —School Library Journal

ABOUT THE AUTHOR AND ILLUSTRATOR

Toni Buzzeo is the author of the Caldecott Honor Book and *New York Times* bestseller *One Cool Friend* as well as many other books for children. She lives in Arlington, Massachusetts.

Visit Toni online at tonibuzzeo.com.

Diana Sudyka is a Chicago-based illustrator who got her start designing and screen-printing posters for musicians. She also volunteers at The Field Museum, where Sue the T. rex is on permanent exhibition.

Visit Diane online at dianasudyka.com.

