

A NOTE FROM AUTHOR JIM ARNOSKY

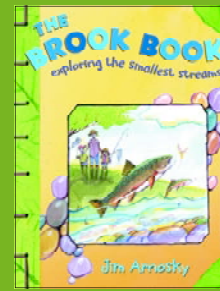
The Brook Book is organized in such a way as to help you get the most out of your class visit to a favorite brook. By visiting a brook, children can learn about water, rocks, aquatic insects, fish, amphibians, environmental issues, and more. Using *The Brook Book* can help you to identify many of the things you and your students might see in a brook. It illustrates the simple tools and safe techniques for catching and collecting small aquatic animals, and it encourages the gentle release of the animals to their original location in or near the stream. Teachers can bring the lessons they learn afield back to the classroom by using a detailed topographical map and a yellow Magic Marker to trace their neighborhood brook to its source and determine where it ultimately flows.

I urge all parents and teachers to include visits to these smallest of streams on their weekend hikes and afternoon outdoor educational classes. Discover what makes your local brook unique. It could be the types of stones, the lack of stones, the clarity of water, the number of small falls or pools, or its species of resident fish. I encourage teachers to emphasize safety as well as exploration. Learn and teach your students how to distinguish when the local brook is safe to explore and when it is running too high and fast to approach.

Finally, have your class research the origin of your brook's name. It's a great way to learn more about its natural history and perhaps even a little bit about the history of your region.



A whole world awaits—
maybe even in your own backyard!



The Brook Book: Exploring the Smallest Streams

by Jim Arnosky

ISBN: 978-0-525-47716-7 (HC)

Ages 8–12 • \$15.99

ALSO AVAILABLE

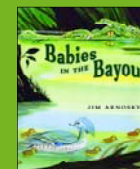


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EDUCATORS' GUIDE

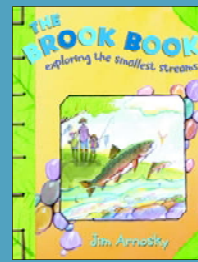
THE BROOK BOOK

exploring the smallest streams



Jim Arnosky

ABOUT THE BOOK



A babbling brook may seem peaceful on the surface, but look closer—it's full of life! A crayfish pokes among the pebbles for food. A salamander sits on a smooth stone. A small catfish darts around in a slow pool.

Acclaimed naturalist and author Jim Arnosky's *The Brook Book* is an informative guide to brooks and streams—a field trip in book form—that is perfectly pitched to young explorers and scientists. Through simple, respectful language and lively, engaging illustrations, readers are encouraged to touch and discover—instilling a lifelong appreciation for the natural world.

ABOUT THE AUTHOR



JIM ARNOSKY is a renowned naturalist and award-winning author and illustrator with over ninety-four titles to his credit.

Jim lives with his wife, Deanna, on their farm in Vermont, where they continue to explore and study the wonders of the natural world. Visit him at www.jimarnosky.com

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PRE-EXPLORATION RESEARCH, ACTIVITIES, & DISCUSSION

- **Bring science and ecology lessons to life with *The Brook Book*!** Plan a class field trip to a local brook or stream or organize a visit to a local ecology center. Visit the field trip site beforehand to take notes on the different birds, insects, animals, and plant life that your students will encounter. Use these notes as a guide for your pre-brook-exploration lesson plans. Providing focused information and letting your class know what they'll actually see during the trip will motivate and excite them about the experience!
- **Create a field log for students to use during their brook exploration to record their observations and findings.** Title it "My Personal Field Trip Log" and include space for remarks about each category of wildlife: animals, plants, and insects. Include a section where students can list their predictions and then compare what they expected to see to what they actually saw. Sensory observations play an important part in the outdoor experience. Leave space for students to record three observations of interesting things they saw, touched, heard, and smelled. When you embark on your trip, make sure that each student has a copy of the blank log attached to a clipboard. Be sure to hand out blank paper and pencils for sketching specimens. Carry along a camera to document your students' discoveries.
- **Build background knowledge so that your students' class trip experience will be more enriched.** Ask students to research the vocabulary words found throughout *The Brook Book*. As a class, chart each vocabulary word, its definition, and an illustration of the item to develop schema. Here are some words to get you started:
 - Aquatic • Wetland • Aquarium • Nymph • Submerged
 - Microscopic • Organism • Larvae
- **Predicting which plant and animal life students may observe on their field trip and studying those species ahead of time will help students to be able to recognize the species when they see them in person.** Ask students to research the birds, animals, insects, and wildflowers that are indigenous to your area and might be found in and around your field trip site. Have students predict which specimens they will most likely observe during their visit to the brook. Study the different animal tracks, plants, and insects illustrated by Jim Arnosky throughout *The Brook Book*. Compare and contrast these specimens with your students' list of predictions.

- **Discuss the importance of conservation and preserving natural habitats.** Reinforce the procedures outlined throughout *The Brook Book* for observing insects and aquatic animals and respectfully replacing them in or near their original home. Encourage students to sketch or photograph flowers and plants rather than pick samples.
- ***The Brook Book* is filled with many different activities that can be used during your class field trip. Identify specific activities that your students may be able to do around your school yard before the field trip.** Take students outside for an afternoon to practice observing a natural habitat. Bird-watching, wildflower sketching, and searching for animal tracks are all activities that can be repeated at home. After their visit to the brook, students will have notes from three different natural habitats to compare and contrast!

POST-EXPLORATION RESEARCH, ACTIVITIES, & DISCUSSION

- **After your field trip, ask your students to compare and contrast the three habitats that they visited: your schoolyard, their home backyard, and the brook or ecology center.** Ask your students to choose two of these habitats and then to use a Venn Diagram to lay out their discoveries and determine the differences and similarities between the two settings. Remember to use descriptive words noting sensory observations for texture, color, size, and scent.
- **Ask students to revisit their original list of predictions of the types of animal, insect, and plant life they expected to encounter.** How many of their original items did they end up finding? How many of the items that they saw surprised them? Did they see any unfamiliar species?
- **Record your students' findings as a class in a shared writing activity.** Collect your class's thoughts on a large writing tablet in the front of the room and use the ideas to create a group story.
- **Create a class field trip diary!** Make excellent use of the sketches and photographs your students collected on their trip by compiling them all into a class book. Have each student share in the process of writing captions for the photos. This can also be a fun group activity!