



Using Tools in Science Lessons

Books

Using Tools in Science

Using Balances and Scales

On the Scale, a Weighty Tale (Math is Categorical)

By Brian P. Cleary; illustrated by Brian Gable. (2008, Lerner Publishing Group)

Children are introduced to the essential measurement units—from grams to pounds to tons. This characters in this book show children how to measure trucks, trains, ducks, cranes, and more.

Using a Compass

North, South, East and West (Rookie Read-About Science)

By Allan Fowler. (1994, Children's Press)

Gives a simple explanation of the four cardinal directions and tells how to use the sun to determine direction.

What Makes a Magnet?

By Franklyn Branley. (1996, Harper Collins Children's Books)

This grade-appropriate book explains the property and behavior of magnets and gives instructions about how to make a magnet and a compass.

Using Magnifiers

George Shrinks

By William Joyce. (2000, HarperCollins Juvenile Books)

Undaunted at finding that he's shrunk to the size of a mouse, George starts in on his household duties, from brushing his teeth to taking out the garbage and looking after his baby brother—all Herculean tasks for this tiny guy in an oversized world. Appropriate for early readers.



Horton Hears a Who

By Dr. Seuss. (1954, Random House)

Horton, the elephant, notices a speck of dust, passing in the air. With his large ears, he can hear something coming from that dust. Quickly he imagines that there are creatures of very small size on that dust, and he must convince other animals before they destroy the dust.

Microscopes and Magnifying Lenses

By Janice VanCleave. (1993, John Wiley and Sons)

This book contains activities with water lenses, hand magnifiers, and how to use two lenses to make a compound microscope.

Powers of Ten: A Flipbook

By Charles Eames and Ray Eames. (1998, W H Freeman & Co.)

This picture flipbook shows not only the relative sizes of things in the known world, but our own place in it. It begins millions of light years away, with every two page spread representing a view ten times larger than the view two pages earlier.

The World of Small: Nature Explorations with a Hand Lens/Book and Hand Lens

By Michael Ross; illustrated by Michael C. and Cary Trout. (1993, Yosemite Association)

Using humorous language and oddball perspectives, this book explains how to use a hand lens and thus enter a "miniature realm, where a pebble can look like the moon." The book contains nearly 60 different lessons involving magnifiers with probing questions to each.

Using Field Guides

The following books are child-friendly field guides.

Backyard Birds (Peterson Field Guides for Young Naturalists)

By Jonathan P. Latimer and Karen Stray Nolting; illustrated by Roger Tory Peterson. (1999, Houghton Mifflin Co.)

This simple guidebook includes a photograph of each bird as well as scientific illustrations to help identify it. Information about the behavior, habitat, and food of each bird are easy to find and read.



Looking at Rocks: My First Field Guide

By Jennifer Dussling; illustrated by Deborah and Allan Drew-Brook- Cormack. (2001, Grosset & Dunlap)

This is a good field guide to recommend to children who want to become rock hounds. Includes a section for tracking information about the rocks they collect.

Peterson First Guide to Caterpillars of North America

By Amy Bartlett Wright. (1998, Houghton Mifflin Harcourt)

This field guide describes 120 common species of caterpillars with detailed descriptions and illustrations.

Peterson First Guide to Insects of North America

By Christopher Leahy; illustrated by Richard E. White. (1987, Houghton Mifflin)

A concise field guide to 203 common and conspicuous insects of North America. Includes introductory sections on observing insects, parts of insects, and more.

Pockets: Rocks & Minerals (Pockets Full of Knowledge)

By Sue Fuller. (1995, DK Publishing Inc.)

This small book is packed with lots of interesting information about rocks and minerals.

Rocks and Minerals (My First Pocket Guide)

By Dr. Paul M. A. Willis; illustrated by Iain McKellar. (1997, National Geographic Society)

This is an age-appropriate field guide with simple, clear information about where you might find each rock or mineral, and details to help identify it. It also contains interesting background information and "field notes" for each rock and mineral.

Rocks and Minerals (Usborne Spotter's Guides)

By Alan Wooley. (2000, Usborne Publishing Ltd.)

A compact, informative, and child-friendly field guide with large, easy-to-see pictures of each rock and mineral included.