

# Prehistoric Life

## MESS® Recommended Materials



### Investigation tools

- handheld magnifying lenses
- tabletop magnifier
- small brushes
- dirt sifters or sieves
- small plastic scoops, trowels or shovels
- 100 ft. tape measure

### Models\*

- prehistoric animals such as woolly mammoth, giant sloth, and *Smilodon*
- dinosaurs representing herbivores, carnivores, bipedal and quadruped such as *Ankylosaurus*, *Apatosaurus*, *Compsognathus*, *Diplodocus*, *Iguanodon*, *Maiasaura*, *Spinosaurus*, *Stegasaurus*, *Triceratops*, and *Tyrannosaurus rex*
- dinosaur egg

\*Ideally, the models should be sized to scale to allow for size comparisons

### Fossils and fossil replicas

- replica fossils such as dinosaur teeth, dinosaur footprint, and prehistoric shark tooth
- authentic fossils such as mammal bone, coral, plant imprints, seashells, shark teeth, and turtle shell

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### Illustrations and photos

- illustrations of prehistoric animals such as mammoth, giant sloth, *Smilodon*, glyptodont, and megalodon
- illustrations of dinosaurs representing herbivores, carnivores, bipedal and quadruped such as *Ankylosaurus*, *Apatosaurus*, *Compsognathus*, *Diplodocus*, *Iguanodon*, *Maiasaura*, *Spinosaurus*, *Stegosaurus*, *Triceratops*, and *Tyrannosaurus rex*
- illustrations or photos of prehistoric animal skeletons
- illustrations or photos of the modern relatives of ancient animals such as elephants, tree sloths, armadillo, and shark

### Additional materials

- sand table, sandy area on playground or small pool filled with sand
- large sheets of brown paper
- fossil molds
- shallow pan
- air dry clay, plaster of paris, or play dough

### Books

Aliki. *Digging Up Dinosaurs*. New York: Crowell, 1981. A visit to a museum provides the opportunity to learn about how the skeletons got there. Field and laboratory work are discussed by the child narrator in a main text. Additional conversation bubbles within the colorful illustrations provide more dinosaur information.

Aliki. *Dinosaurs Are Different*. New York: HarperCollins, 1985. Differences in dinosaur size, teeth, hip arrangement, and external accessories are the emphasis of this little volume. Part of the Let's-Read-and-Find-Out series, this book provides the most detailed comparative information about a number of specific dinosaurs among Aliki's many books.

Aliki. *Fossils Tell of Long Ago/Fosiles Nos Haban Del Pasado*. New York: HarperCollins, 1990. Several curious children learn about fossil plants and animals. Using both a main text and conversation bubbles, the author explains how fossils are formed and what they tell us about the past.

Aliki. *My Visit to the Dinosaurs/Mi Vista a los Dinosaurios*. New York: HarperCollins, 1985. A visit to a natural history museum provides a little boy, and his father and sister, with an introduction to the habits, characteristics, and habitats of fourteen dinosaurs. An audio recording also is available.

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Barner, Bob. *Dinosaur Bones/Dino Huellas*. San Francisco: Chronicle Books, 2001. The author invites children to think about how dinosaur bones found in the ground and stored in museums once belonged to living creatures. Information about dinosaurs is presented in simple rhyming text, a more expansive subtext, and brightly colored cartoon illustrations. Charts indicating name, diet, relative size, and footprint shape allow comparisons.

Barton, Byron. *Bones, Bones, Dinosaur Bones*. New York: HarperCollins, 1990. In simple text and cartoon illustrations, boldly colored workers demonstrate the process of finding and assembling dinosaur bones. While illustrations at first seem stark and simple, easy-to-find details add information.

Barton, Byron. *Dinosaurs, Dinosaurs*. New York: HarperCollins, 1989. Bold, brightly colored illustrations and simple text provide a first introduction to dinosaur size, shape, and other characteristics. Front and back pages provide names and pronunciations of specific dinosaurs.

Carrick, Carol. *Big Old Bones: A Dinosaur Tale*. New York: Clarion Books, 1989. A fictional scientist discovers some big old bones out West and later puts them together in various ways until he is satisfied he has discovered a dinosaur. But readers may not recognize it! The detailed but light-hearted illustrations and the ending author's note about other scientific mix-ups foster thoughtful conversation.

Dodson, Peter. *An Alphabet of Dinosaurs*. New York: Scholastic, 1995. Twenty-six different prehistoric reptiles, some more familiar than others, are detailed in this interesting volume. Text on two levels, either easily edited out, is accompanied by a simple line drawing of a dinosaur's skeleton or portion thereof, on one page. The facing page presents a vibrantly colored painting of the same dinosaur in its habitat, usually in action eating, fighting, or moving. The illustrations encourage study and conversation.

French, Vivian. *T. Rex*. New York: Candlewick Press, 2006. A boy and his grandfather visit a T. rex exhibit at a museum. The answers the grandfather provides to the young boy's questions frequently end with "maybe." Repeatedly, the grandfather explains that "it was millions and millions of years ago" and young paleontologists will need to look for more answers. Grandfather and grandson's conversation is printed in two different type styles, while a third style within illustrations provides additional information about dinosaurs. 2005 NSTA Outstanding Science Trade Books for Students K-12

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Jenkins, Steve. *Prehistoric Actual Size*. New York: Houghton Mifflin, 2005. The actual size of a variety of prehistoric animals (or parts of them) are illustrated with cut- and torn-paper. Overall sizes—from dot to more than a page—are provided, allowing for comparison. Most children will likely be unfamiliar with some of the animals so this book is best used in combination with more realistic illustrations. Some general information about each animal is provided in the back.

Most, Bernard. *How Big Were the Dinosaurs?* San Diego: Harcourt Brace, 1994. The sizes of different dinosaurs are compared to more familiar objects, such as a school bus, trombone, or bowling alley. While the comparisons are helpful, dinosaurs interacting with humans in a modern world may be confusing for young children.

O'Brien, Pat. *Mammoth*. New York: Henry Holt, 2002. The story of a great hairy animal of ancient times is told in a fun way with dramatic pictures. The preserved remains of mammoth bodies tell the story of what is known about this prehistoric ancestor of the elephant.

O'Brien, Patrick. *Megatooth*. New York: Henry Holt, 2001. This book introduces the now-extinct sharks called megalodons and many other large creatures of the period. There is a brief discussion of how scientists use fossil teeth and knowledge of modern sharks to draw inferences about this ancient one. Size comparisons with both period animals and more familiar animals (including people) are given in feet, some with small enough numbers that young children will be able to do some comparative measuring. A time line at the end begins with the age of reptiles and ends with people.

Pallotta, Jerry. *The Dinosaur Alphabet Book*. Watertown, MA: Charlesbridge Publishing, 1990. Associated with each letter is one dinosaur name and sometimes amusing information about it, including physical features and diet. Some dinosaurs are familiar; some are not. Illustrations are colorful but relatively flat. Dinosaur names are usually long and multi-syllabic, but for the young dinosaur fan having a hard time learning the alphabet, this may be an answer.

Penner, Lucille Recht. *Dinosaur Babies*. New York: Random House, 1991. Aimed at beginning readers, this little volume provides a simple introduction to dinosaur babies and their behavior. Text is sparse, type is large, and illustrations are softly colored but appropriately detailed. Discussing dinosaur babies may help give life to an extinct animal.

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Roth, Susan L. *Great Big Guinea Pigs*. New York: Bloomsbury Publishing, 2006. A baby guinea pig pet asks for a “true” bedtime story and his mother responds with the story of a recently found giant guinea pig in Venezuela. The little guinea pig asks questions, allowing mother an opportunity to provide significant information about modern and extinct animals. And how does mother know about giant, millions-of-years-old guinea pig ancestors? She read it in the newspaper lining the bottom of their cage! Textured papers from around the world make fascinating collage illustrations.

Stewart, Melissa. *Fossils*. Minneapolis, Minnesota: Compass Point Books, 2003. Clear photographs and ample text explain what fossils are, how and where they are formed, and how they are found. Children will enjoy the photos, while teachers may appreciate the factual information.

Turner, Alan. *National Geographic Prehistoric Mammals*. National Geographic Children’s Books, 2004. Written by a respected paleontologist, this book introduces children to 100 prehistoric mammals through stunning color illustrations. The text—written for older elementary/middle school students—provides details on how each animal lived and behaved that can be interpreted for young children. The book is best used selectively to support children’s curiosity about ancient animals popularized in the media or, ideally, those that once lived nearby and whose fossilized remains may be viewed in local museums.

Wahl, Jan. *The Field Mouse and the Dinosaur Named Sue*. New York: Scholastic, 2000. Through the adventures of a small field mouse who accidentally gets transported to a museum, this book tells about the discovery of the most complete set of T. rex bones found to date. As readers share the mouse’s plight, they learn about museums and paleontology. Detailed smaller and larger illustrations successfully break the ample text into scenes to observe and discuss.

Wallace, Karen. *I Am an Ankylosaurus*. New York: Atheneum Books for Young Readers, 2003. A fair amount of scientific information about dinosaur life is imparted as this brightly illustrated story follows an ankylosaur mother from the laying of her eggs to the hatching of her babies. Life can be rough! Different colors and textures for the dinosaurs, especially the troodon, encourage discussion about what is known (or not known) about dinosaur skin. The plot also supports conversation about animal defenses.

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Wheeler, Lisa. *Mammoths on the Move*. New York: Harcourt, 2006. Watercolor illustrations and a rhyming text tell the story of a hazardous annual woolly mammoth migration thousands of years ago. There is a wonderful variety of descriptive words. Some, like “steppes” and “permafrost,” may be sufficiently explained in illustration or context; some like “trumpeting” and “gnawing,” may require demonstration. Details like the other animals in the mammoth world encourage close observation. An opening author’s note explains the co-existence of three kinds of mammoths, although the story is only about the woolly mammoth. 2007 ALA Notable Children’s Book

Wilkes, Angela. *Big Book of Dinosaurs*. New York: DK Children, 1994. This informative, oversize volume includes full-color photos of dinosaur replicas that convincingly convey how these creatures appeared millions of years ago. Simple text describes how a variety of dinosaurs lived, camouflaged themselves, found their food, and survived, while questions encourage readers to make comparisons among the dinosaurs.

